DIGITAL RESOURCE MANAGEMENT STRATEGIES FOR STAFF IN GUANGXI UNIVERSITIES

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Thesis Title Digital Resource Management Strategies for Staff in Guangxi Universities

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ABSTRACT

The objectives of this research were: 1) to study the current situation of digital resource management for staff in Guangxi universities, 2) to provide digital resource management for staff in Guangxi universities, and 3) to evaluate suitability and feasibility of digital resource management for staff in Guangxi universities. The sample group of this research included 379 staffs from 10 universities in Guangxi. The research instruments included: 1) questionnaire, 2) focus group discussion, and 3) evaluation form. The data were analyzed by percentage, average value, standard deviation, and content analysis.

The research results show that: 1) the current situation of digital resource management for staff in Guangxi universities in overall was at high level. Consider for the result of the study aspects ranged from the highest to the lowest level were as follows: the highest mean was system quality, followed by information quality, and user satisfaction was the lowest mean. 2) Digital resource management for staff in Guangxi universities included 6 strategies with a total of 36 measures. There are: 1) 6 measures for enhancing system quality, 2) 6 measures for enhancing information quality, 3) 6 measures for enhancing information service quality, 4) 6 measures for supporting intention to use, 5) 6 measures for enhancing user satisfaction, and 6) 6 measures for supporting Individual benefit. 3) The suitability and feasibility evaluation results of the strategies are at high level.

Keywords: Strategies, Digital resource management for staff, Guangxi universities.

ชื่อเรื่อง **กลยุทธ์การบริหารจัดการทรัพยากรดิจิทัลสำหรับบุคลากรมหาวิทยาลัยในมณฑลกวางสี**
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บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์ 1) เพื่อศึกษาสภาพปัจจุบันของการบริหารจัดการทรัพยากรดิจิทัลสำหรับบุคลากรมหาวิทยาลัยในมณฑลกวางสี 2) เพื่อเสนอกลยุทธ์การบริหารจัดการทรัพยากรดิจิทัลสำหรับบุคลากรมหาวิทยาลัยในมณฑลกวางสี และ 3) เพื่อประเมินกลยุทธ์การบริหารจัดการทรัพยากรดิจิทัลสำหรับบุคลากรมหาวิทยาลัยในมณฑลกวางสี กลุ่มตัวอย่างที่ใช้ในการวิจัยครั้งนี้ ได้แก่ บุคลากรมหาวิทยาลัยในมณฑลกวางสี จำนวน 10 แห่ง รวมทั้งสิ้น 379 คน เครื่องมือที่ใช้ในการวิจัย ได้แก่ 1) แบบสอบถาม 2) แบบสนทนากลุ่ม และ 3) แบบประเมิน สถิติที่ใช้ในการวิจัย ได้แก่ ค่าร้อยละ ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน และการวิเคราะห์เนื้อหา

ผลการวิจัยพบว่า 1) สภาพปัจจุบันของการบริหารจัดการทรัพยากรดิจิทัลสำหรับบุคลากรมหาวิทยาลัยในมณฑลกวางสี โดยภาพรวมอยู่ในระดับสูง เมื่อพิจารณาเป็นรายด้าน พบว่า คุณภาพระบบ มีค่าเฉลี่ยสูงสุด รองลงมาคือ คุณภาพข้อมูล ส่วน ความพึงพอใจของผู้ใช้งาน มีค่าเฉลี่ยต่ำสุด 2) กลยุทธ์การบริหารจัดการทรัพยากรดิจิทัลสำหรับบุคลากรมหาวิทยาลัยในมณฑลกวางสีประกอบด้วย 6 กลยุทธ์ รวมทั้งสิ้น 36 มาตราการ ได้แก่ 1) การเสริมสร้างคุณภาพระบบ จำนวน 6 มาตรการ 2) การเสริมสร้างคุณภาพข้อมูล จำนวน 6 มาตรการ 3) การเสริมสร้างคุณภาพการบริการสารสนเทศ จำนวน 6 มาตรการ 4) การสนับสนุนเจตนาการใช้งาน จำนวน 6 มาตรการ 5) การเสริมสร้างความพึงพอใจของผู้ใช้งาน จำนวน 6 มาตรการ และ 6) การสนับสนุนผลประโยชน์ส่วนบุคคล จำนวน 6 มาตรการ 3) ผลการประเมินความเหมาะสมและความเป็นไปได้ของกลยุทธ์การบริหารจัดการทรัพยากรดิจิทัลสำหรับบุคลากรมหาวิทยาลัยในมณฑลกวางสี อยู่ในระดับสูง

คำสำคัญ: กลยุทธ์ การบริหารจัดการทรัพยากรดิจิทัล สำหรับบุคลากร มหาวิทยาลัยในมณฑลกวางสี

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Yu Yanna

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Introduction

Rationale

Changes in the collection, processing and storage of information in the digital era have led to the explosive growth of digital literature and information resources, and the emergence of new technologies has made people more dependent on the use of electronic devices. The 49th Statistical Report on the Development of China's Internet pointed out that as of December 2021, the number of Internet users in China was 1.032 billion, and the number of cell phone users was 1.029 billion. The results of the 19th National Reading Survey show that the proportion of adults using digital reading in China shows an increasing trend in 2021. It can be seen from the two reports that people's use of digital resources is rising, thus putting forward new requirements for the construction and management of digital resources.

College library as the manager of college literature and information resources in teaching and research work belongs to an indispensable part, in 2015, China formulated a special "General College Library Charter" for the construction of digital libraries in major colleges and universities, and the charter proposed that major colleges and universities in China should gradually promote the digital construction of libraries. In 2017, China pointed out a specific five-year development plan for education, and made relevant instructions for digital reading, digital library construction and management, proposing that major universities should dig their own library literature resources, try their best to feature literature digitization system as soon as possible, and accelerate information sharing. The most important task of libraries in universities is to provide support for the scientific and educational activities of schools and to provide assistance for campus culture. In the face of the rapidly increasing digital demands generated by the growing number of Internet readers, university libraries should pay attention to the various new demands of readers in the reading process and build an information resource system based on various measures, so as to provide full support for the teaching and research work of schools.

College library is an important place for providing documentary information resources and an important auxiliary institution for education and teaching in colleges and universities. In the traditional resource construction, limited by time and space factors, libraries do not have perfect measures in collecting, using and managing documentary resources, which leads to the waste of resources, and the use and management of resources in a single way, and these problems restrict the effective development of library resource construction and management. The new learning and reading habits of students and faculty in the digital era have challenged the traditional resource construction and management. College library resource management must take up the challenges brought by the digital era, keep up with the trend of the times and change the current status of resource management, in which case the construction and management of digital resources are gradually being emphasized.

"The theme of the 2017 Workshop on Digital Resource Construction and Knowledge Services is "Strategies and Initiatives for Digital Resource Construction and Knowledge Services in College Libraries," which shows that the construction and management of digital resources in college libraries has become a hot issue in the industry." In the high-end forum of "Future-oriented Library Business and Librarianship Development Research", Zhu Qiang proposed that if libraries cannot successfully realize the transformation from paper resources to digital resources, it will be difficult to be invincible in the future.' The seminar on the development of library resource construction work in the 14th Five-Year Plan' was held, and the conference emphasized that in the development planning of the next five years, digital resource construction and management as the basis of library work, in the context of rapid development of information technology, it is necessary to clarify the current urgent problems and seek digital In the context of the rapid development of information technology, it is necessary to identify the current urgent problems and seek a breakthrough in digital resource management.

Research Questions

1. What is the current situation of digital resource management for staff in Guangxi universities?

2. What are the strategies of digital resource management for staff in Guangxi universities?

3. Are the strategies of digital resource management for staff in Guangxi universities Suitability and feasibility?

Research Objectives

1. To study the current situation of digital resource management for staff in Guangxi universities.

2. To provide the strategies of digital resource management for staff in Guangxi universities.

3. To evaluate the strategies of digital resource management for staff in Guangxi universities.

Scope of the Research

Population and the Sample Group

Population

The population were 20616 staffs from 10 undergraduate university in Guangxi.

The Sample Group

The Sample Group were 379 staffs According to Krejcie and Morgan (1970) sampling table, the sample group were staffs of university in Guangxi. They were selected by purposive sampling method from 10 universities which located in different city in Guangxi, and used by random sampling.

The 10 universities selected include: Guangxi University, Nanning University, Nanning Normal University, Guangxi Arts University, Guangxi Nationalities University, Guangxi Finance and Economics University,Baise University, Guangxi University of Science and Technology, Guangxi Normal University, Hechi Academy.

The Variable

The DeLone and McLean Model of Information Systems Success, often abbreviated as the D&M IS Success Model, is a widely used framework to

conceptualize and measure the complex dependencies and interactions of information system (IS) success factors. Introduced by William H. DeLone and Ephraim R. McLean in 1992, the model has since undergone refinements to adapt to the rapidly changing landscape of IS.

Digital Resource Management Strategies for Staff in Guangxi Universities they include: 1) System quality, 2) Information quality, 3) Information servise quality, 4) Intention to use, 5) User satisfaction, 6) Individual benefit.

Advantages

1. For the construction and development of library digital resources to point out the direction. Adjustment of university library development and construction decision-making, the actual construction process of digital resources for Guangxi university library, clear existing resources can fully meet the diverse needs of customers, etc., managers can formulate policies and use of evaluation from the actual demand, resource utilization rate as the core to help managers clarify the existing problems, and point out the direction of management for the development of digital resources for university libraries.

2. Enhance the effectiveness of the utilization of the library's digital resources. Grasp the relevant needs of user groups, identify the shortcomings of digital resource management and services, and take effective measures to improve them, so as to enhance user satisfaction, make users feel the convenience brought by digital resources, and motivate them to take the initiative to utilize the digital resources of libraries.

3. Optimize the library collection structure. Collection structure mainly refers to the proportion structure of paper resources and digital resources in the library, according to the collection structure, based on the type of professional resources in colleges and universities, upgrade the collection structure, through effective management to realize the high degree of combination of traditional collection resources and digital resources, and then make the collection structure to achieve a more reasonable state, and improve the value of the use of library resources in colleges and universities.

4. Facilitate the provision of targeted management. Users at different levels have different needs for information, and limited resources cannot meet the ever-changing needs, so it is necessary to clarify the direction of the library's digital resource management. The direction of library digital resource management is to focus on the development of special resources on the basis of library collection resources, and to meet the needs of users for digital resources through effective management and services, so as to improve work efficiency.

Definition of Terms

Staff Refers to higher education institutions consists mainly of teachers and administrative staff. Faculty members are typically responsible for teaching, research, and academic advising activities designed to promote the academic and personal development of students. They may teach classes, design curricula, publish research papers, or supervise student research projects. Administrative staff, on the other hand, support the day-to-day operations and management of the school. They may perform a variety of duties such as office management, finance, student services, and administrative coordination. Whether they are teachers or administrative staff, they share the common goal of ensuring the smooth running of the school and providing the best educational environment for students.

The Digital resource management refers to digital resources are equivalent to electronic resources, which are stored in non-printing media such as light, magnetic and so on through digital forms of text, images, sound and other kinds of information, and transmitted and presented through computers or other devices. And in a broad sense, digital resources are regarded as the main expression of modern literature and information, which is based on communication technology, network technology, computer technology and multimedia technology, and the sum of information resources released, accessed and utilised in digital form.

System Quality refers to the technical attributes of the information system, such as performance, usability, and reliability. It focuses on the characteristics of the software application itself. The library's digital resources system is convenience for staff, underpinned by its stability. It boasts of responding quickly to operations, ensuring a seamless experience. Unrestrained by time, it offers 24-hour access and is accessible on-the-go thanks to mobile compatibility. Its instant user interface updates

ensure constant relevance, while its design emphasizes efficiency and facilitates easy task completion. The system stands out for its ability to tap into various types of resources and search across multiple databases. Above all, it guarantees information and data safety, all while ensuring rapid download speeds.

Information Quality refers to the quality of the information that the system produces. Factors here include relevance, understandability, accuracy, and timeliness of the information. In the modern digital landscape, libraries used by staff prioritize Prompt Updates to ensure their resources remain current. One of the hallmarks of these digital assets is their Accuracy and Comprehensiveness. Backed by High-quality Publications, the content guarantees Extensive Coverage across subjects, with the advantage of Continuous Expansion. These resources are fortified by Built-in Databases which accentuate their Helpfulness. What sets them apart is their Distinct Content which, when searched, yields Relevant Search Results. Additionally, the incorporation of diverse Multimedia Content like videos and audios enriches the user experience, making research both comprehensive and engaging.

Information service Quality refers to the support provided to users of the system. This could come from a help desk, training sessions, or any other form of user assistance. The university library's digital services significantly enhance academic research and efficiency for staff. They offer vital training, guidance, and specialized academic guidance through subject librarianship services. When navigating these digital resources, staff benefit from a swift response from customer service, and any issues they face are addressed with precision. The library ensures multilingual services and personalized recommendations. It also emphasizes long-term resource storage, preservation, and the introduction of convenient new features. Additionally, the library values feedback, addressing staff's opinions effectively. Tutorials and guides further aid staff in their use of these resources.

Intention to Use refers to gauges user intention to use and the actual use of the system. Even if a system is of high quality, it won't be successful unless it's used effectively by its intended users. In the university's digital library setting, the Frequent Use of the retrieval feature signifies its pivotal role in aiding academic activities. The library proficiently Meets Needs, offering an Accurate Understanding of the staff's demands, and subsequently, Enhanced research Efficiency. Staff place their trust in its information Reliability and Accuracy, enjoying the Ease and Convenience it brings

to achieving their objectives. Their Enjoyment using the resources often translates to Recommendations for peers. The library's adept Alignment with Expectations and its unwavering emphasis on Privacy and Peace of Mind foster a harmonious rapport between the staff and the library services.

User Satisfaction refers to the responses and attitudes of users towards the system. It gauges how well the system meets users' expectations and requirements. The staff expresses satisfaction with the overall user experience of the digital library, appreciating its clear and aesthetically pleasing user interface. They commend the loading speed and the high service quality. The information quality is considered top-notch, and the range of resources, including e-books, papers, and audio-visual materials, is found to be sufficient. These resources enhance their research efficiency. Additionally, the library's technical support is deemed effective, and the library's proactive approach in frequently updating digital content is appreciated. Furthermore, its categorization and tagging system is straightforward, making it easy to understand and use.

Individual Net Benefit refers to a measure of the benefits realized from using the system. It assesses the extent to which the IS contributes to the success of individuals, groups, or the entire organization. primarily digital library facilitates research and offers time-saving benefits. The library's resources are not only of high quality but also enhance learning efficiency. It assists staff in making better decisions and makes the research experience an enjoyable process. The library's varied resources ensure a holistic development while fostering self-directed learning. Furthermore, its role in contributes to career development. With the added advantage of helpful courses & tutorials and granting easier access to the latest information, it remains a cornerstone for academic and professional progression.

Stratety refers to Library management strategies are the systematic planning and adjustment of service concepts, capabilities and operation methods in the context of digitisation and information technology for university libraries to serve students and teachers more effectively. These strategies focus on integration with Internet technologies, innovation of service concepts, transformation of service models, and protection of intellectual property and personal privacy. Library management in the modern environment also includes the introduction of new media and big data technologies, continuous updating of resources and enhanced

resource sharing. This aims to optimise the user experience and ensure that libraries are able to meet modern academic and educational needs and maintain their competitiveness in the academic field.

Research Framework

Based on the theories of the D&M IS Success Model, the research framework of this paper is show in Figure 1.1.

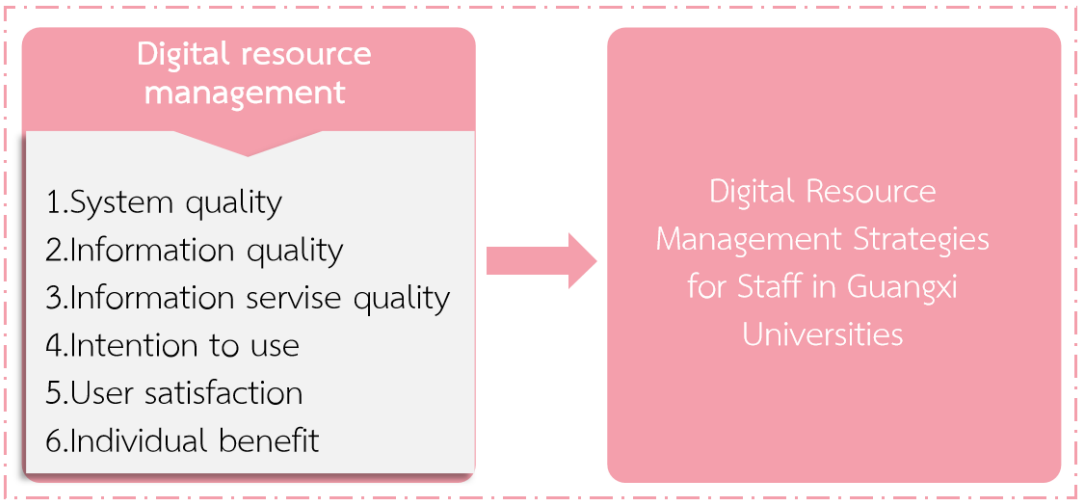

Figure 1.1 Research Framework

Chapter 2
Literature Review

This chapter will focus on the research questions raised in Chapter 1 and summarize the main theoretical basis and related researchers involved in this research, so as to clarify the theoretical inheritance, improvement and expansion relationship between this research and existing achievements. In order to explore the theoretical basis of the Digital Resource Management strategies for Staff in Guangxi Universities, this chapter sets out the theories as follow:

1. Concept of Educational administration
2. Concept of Digital Resource Management
3. Concept about stratety for developing
4. Context of Guangxi undergraduate university libraries
5. Related research

Concept of Educational administration

The concept of educational management has been present since the inception of educational activities. However, it only began to be studied as a specialized scientific field at a certain stage in the evolution of educational management practices. Prior to the establishment of educational management as a systematic discipline, educational practice was already rich with management ideas and experiences. Initially, these ideas and experiences were intertwined with human productive labor, during which management concepts were shared and transmitted. The establishment of specialized educational organizations coincided with the rise of slave societies and the dissolution of primitive societies. Consequently, the ideas and practices of managing educational organizations evolved concurrently with their emergence.

Educational Administration is a comprehensive concept involving planning, organizing, leading, coordinating, and controlling. These functions aim to achieve educational goals and improve the efficiency and effectiveness of educational organizations. Planning sets objectives, organizing arranges resources, leading guides staff, coordinating ensures teamwork, and controlling monitors progress. Together,

these elements create a responsive educational environment that promotes learning and development.

Qu Yi and Chuyun (2024, p.72-78) argue that colleges are complex systems. Using cybernetics and system science, they study information transmission to enhance student education and management. They advocate for a student-centered approach, system thinking, and optimizing mechanisms, helping staff clarify responsibilities and strengthen commitment.

Zhang, Yue (2024, p.124-126) argues that in the big data era, information technology brings new ideas to college educational management. Using big data optimizes traditional methods and enhances management, supporting efficient and high-quality development, aligning with future trends.

Lin Yan (2024, p.51-54) describes that AI drives modernization in college management, making it more humanized, flexible, and comprehensive. However, challenges in mechanisms, concepts, methods, and models hinder AI integration. To address this, colleges should pursue digital education, innovate organizational systems, improve teachers' information literacy, change classroom paradigms, and organize practical activities. This aims to cultivate well-rounded, innovative talents and support the national development strategy.

Overall, while researchers offer slightly different definitions of Educational Administration, they all highlight its primary aim: achieving educational goals and improving quality and effectiveness through a series of organizational management methods. These varied definitions provide valuable perspectives and theoretical foundations, advancing both the practice and research of Educational Administration.

Higher Education Management

Jiang Shan (2023, p.20-22) in the big data environment, the big data shift in higher education management is the embedding of the data management concept, which promotes the concept of higher education management from the traditional type to the modern type. Big data technology constructs a bridge for information communication and sharing, focusing on participation, cooperation and interaction in higher education management. This model enables higher education management to achieve information sharing and form a structure of multiple co-management, complementarity, and same direction. Driven by big data, the main body of higher education management has shifted from mono-dominant to multi-dimensional

synergy, forming a higher education management pattern of co-construction, co-responsibility and sharing. This pattern expands the connotation and extension of higher education management, promotes the integration, convenience and personalisation of higher education management, forms an interconnected organic whole of multiple management subjects, and continuously improves the efficiency of resource integration and utilisation.

Liu Hongying (2023, p.32-34) the rapid development of science and technology on the modern social cause of production and construction of the impact is very great, with the emergence of intelligent mobile terminals, Internet technology, computer media equipment and so on to promote the optimisation and upgrading of education. The university schooling to be in line with the trend of the times, to be in line with the country's future talent training goals, in the daily education management process to make full use of big data as the representative of the Internet information technology is particularly important. In this context, a deep understanding of the essence of college education management, clear college education management on the new demand for big data, and actively explore the integration of big data and college education management of the specific way has become the relevant educators face a key topic.

Xie Yi and Yang Xingfang (2020, p.185-188) digitalisation is regarded as a "golden key" for the transition between the "new world" and the "old world", and has its unique advantages in the field of higher education. It has its unique advantages in the field of higher education, such as educational concepts, teaching materials, learning tools, educational environment, teachers' functions and other aspects of talent cultivation. Firstly, digital teaching improves teaching efficiency. Secondly, digital teaching can break through the time and space limitations, so that college students have the opportunity to contact educational resources and teaching concepts in China and even around the world at any time and any place, so as to make up for the information gap and overcome the Digital Divide/Digital Gap, to achieve educational fairness and to promote social fairness. Thirdly, the functions of college teachers have also changed significantly under the trend of digitisation. Fourthly, the management of university students and the teaching and learning system has become more informatised, which reduces the work pressure of university teaching staff. With the rapid development and popularity of modern

information technology and media such as big data, cloud computing, artificial intelligence, virtual reality, mobile Internet, network community, 5G, blockchain (Blockchain), the whole society has entered the digital era. Emerging technologies such as catechism, spatial teaching, flipped classroom, cloud classroom, etc. are also ready to develop in the field of higher education. Therefore, the digital transformation of higher education personnel training mode is the inevitable requirement of the new era and the general trend.

Luo Yuanyun and Yang Xingfang (2020, p.8-14) with the application of big data, the popularity of artificial intelligence and the advent of network society in the information age, the traditional university education model has been subjected to a very serious impact and challenge, and higher education to adapt to the reality of the new social development and make the corresponding adjustments and changes are inevitable! However, from the traditional university to the evolution of digital university course, is not a common misconception of the "branch of the local small changes", but a "global height", the real meaning of the "subversive innovation". Innovation". The digital wave and digital revolution triggered by the Internet and other modern information technologies are impacting all aspects of human life with unprecedented momentum, an education revolution is coming, education as the last bastion of informatisation is increasingly being broken through, and higher education can not be left out. Facing the impact and challenges of the digital wave, traditional universities are bound to face the dilemma of survival, and we can no longer immerse ourselves in the prosperity of industrial civilisation and take an evasive attitude.

Wang Xuejiao and Li Yanhui (2022, p.78-88) the Russian Federation is not only a friendly neighbouring country for China's "One Belt, One Road" initiative, but its higher education system is also one of the main reference objects in the early stage of the development of higher education in New China. In the face of the general trend of economic globalisation, the Russian Ministry of Education has put forward a development plan for the internationalisation and modernisation of higher education, focusing on digital transformation as a national project and putting forward a long-term plan, which believes that digital transformation is the dominant trend in today's social change, and that it is necessary to create a "digital education environment" to ensure the implementation of digital transformation of the

education system. The digital transformation of the education system is ensured by the creation of a "digital education environment". The Outline of the Fourteenth Five-Year Plan for the National Economic and Social Development of the People's Republic of China and the Vision for 2035, published in 2021, emphasises the goals and tasks of digital economic and social development, as well as the need to develop a digital scientific and technological innovation system for the future development of education, in order to cope with the adjustments and impacts of the international economic situation and the structure of the market. Based on the similarity of the Russian education system and the generality of international shocks, it is possible to draw on the measures of digital transformation of Russian higher education to provide some thoughts on the digital transformation of our education system.

Chang Tongshan (2022, p.13-26) digital transformation can help higher education to improve or create a new type of governance capacity, use the same resources to run a better university, run a more equitable university, provide quality higher education resources for more students and the public, and create the conditions for practicing the quality of connotative development. The digital transformation of higher education in the United States has a history of many years, and has accumulated rich experience from both digital technology and digital strategy. Digital governance, digital information platform construction and institutional research are key components of digital strategy, which is an important way to improve the effectiveness of higher education governance by enhancing scientific decision-making, strategic planning, accountability and institutional effectiveness evaluation power. The study suggests that China should strengthen the legal construction of digital transformation of higher education at the national level and improve the regulations at the school level; collaborate with educational administrative departments, professional societies and universities to accelerate the construction of digital platforms for higher education, and improve the sharing of digital resources; strengthen the strategic position of transparency and openness of higher education in the development of the digital transformation of higher education and the importance of institutional research; strengthen the function of institutional research, and enhance the scientific decision-making, strategic planning, accountability, and evaluation of institutional effectiveness. importance;

strengthening the research function of institutions to achieve digital strategic goals and enhance the practical value of digital transformation in the transformation of higher education governance.

Lan Guoshuai et al (2022, p.141-151) higher education is in dire need of digital transformation. Digital transformation of higher education optimises and transforms the operating model, strategic direction and value proposition of higher education institutions through cultural transformation, workforce transformation and technological transformation. Digital transformation of higher education in China is still in the early stage of development, and there are problems of different conceptual understandings and ambiguous understandings of the goals and stages of digital transformation at the theoretical level, as well as a lack of systematic strategic planning, effective modelling frameworks, scientific assessment indicators and feasible implementation paths at the practical level. According to the idea of "understanding digital transformation - planning digital transformation - implementing digital transformation", we will elucidate the fundamentals, strategic planning and promotion paths of digital transformation in higher education, and put forward a proposal to promote the digital transformation of Chinese higher education. We also put forward recommendations to promote the digital transformation of Chinese higher education, namely, strengthening top-level design and overall planning, and formulating a model framework for digital transformation of higher education; creating a cultural atmosphere of data-based educational decision-making, and building a cultural transformation ecosystem for the digital transformation of higher education; enhancing the digital literacy of faculty members and students, and fostering the chief data officer, and constructing a foundation for the transformation of the workforce for the digital transformation of higher education; and establishing an integrated service ecosystem for the digital transformation of higher education. service ecosystem for digital transformation of higher education, and consolidate the technological transformation foundation for digital transformation of higher education.

Fan Yupeng and Zhou Qian (2023) the report of the 20th National Congress proposes to promote the digitalisation of education. At present, digitalisation has become an important force to promote the modernisation of higher education in the new era, and it is a matter of whether Chinese higher education can truly adapt to

the needs of quality diversification, lifelong learning and personalisation of cultivation in the popularisation stage. Therefore, it is necessary to accelerate the deep integration of modern information technologies such as cloud computing, big data, artificial intelligence, blockchain and other modern information technologies with higher education, to comprehensively empower the modernisation of Chinese-style higher education, and to promote a profound change in the shape of higher education.

Ning Xiaoxian et al (2023, p.17-25) digital transformation has become the focal point of higher education's future development towards higher quality. In this context, it is particularly important for higher education institutions to grasp the opportunities for change, grasp the pulse of the times, integrate the experiences of different countries and deepen multilateral cooperation. Since its establishment, WMCE has been committed to the digital transformation of higher education in four areas: collaborative teaching and learning, capacity building, knowledge sharing and public outreach. 2022 WMCE Annual Council reviewed the work of WMCE in that year, focusing on the topics of digital innovation and cooperation in higher education as well as the future development of WMCE, and proposed that practitioners in higher education should seize the opportunity to continue to promote the integration of new technologies and higher education, change educational concepts, update teaching models, improve educational quality, and optimise educational assessment standards, so as to meet the challenges posed by the digital environment to the transformation of higher education; enhance teachers' digital literacy and teaching skills, promote the development of online education platforms such as Mucous Classes and the sharing of high-quality educational resources, and make use of new technologies such as Artificial Intelligence, Virtual Reality, and Blockchain to empower The future development of higher education should adhere to the principles of serving people with results, promoting transformation through innovation, and facilitating exchanges through cooperation, with a view to promoting the development of the alliance and the construction of a more open, more integrated and more resilient higher education.

Xu Ran and Chen Wuyuan (2023) In august 2022, UNESCO released the Guidelines for Information Technology Policies and Master Plans in Education, indicating that the digital transformation of education is a historical choice for the

integration and development of education and information technology in the new era, and is a key means of global educational change.2022 At the end of the year, the Secretariat of the World Alliance for Mootooling and Online Education organised the preparation and release of the "Unlimited Possibilities: World Higher Education Digitisation Report, which is based on an international perspective, and makes a detailed exposition and systematic combing from three aspects: strategic initiatives of education digitisation, main experience achievements and future development trends. The development of digital technology will inevitably bring about subversive changes in the higher education system, and the promotion of the integration of higher education and digital technology has become an urgent need to achieve the high-quality development of higher education. Therefore, whether international or domestic, the digital transformation of education has become an important direction of the current world education change. Promoting the digital transformation of education is an inevitable choice to improve China's new advantage in international competition.

In summary, big data and digital technology have deeply influenced the mode of higher education management, promoting its transformation to modernisation, integration, convenience and personalisation. Big data technology builds a bridge for information communication and sharing, promotes information sharing and multi-dimensional collaborative management, and improves the efficiency of resource integration and utilisation. At the same time, digital teaching has also had a far-reaching impact on the mode of higher education training, which improves teaching efficiency, breaks through time and space constraints, promotes educational fairness, changes the functions of college teachers, and informatises the management of colleges and universities. However, with the application of big data, artificial intelligence and the advent of network society in the information age, the traditional university education model has been greatly challenged, and higher education must be adjusted and transformed accordingly to adapt to the new reality of social development. This transformation is not just a small localised change, but a big disruptive innovation, and these strategies and suggestions mainly include strengthening the legal construction, improving regulations, accelerating the construction of digital platforms, sharing digital resources, strengthening institutional research, enhancing top-level design and overall planning, creating a culture of data

decision-making, improving digital literacy, establishing a service eco-system, and seizing the opportunities of the new technology for education's All-round reform.

While facing these challenges, countries are actively seeking solutions. For example, Russia is not only a friendly neighbour of China's Belt and Road Initiative, but its higher education system is also a major reference for the development of higher education in new China. The Russian Ministry of Education has put forward a long-term plan for digital transformation, hoping to create a "digital education environment" to implement the digital transformation of the education system. China has also released a five-year plan that emphasises the goals and tasks of digital economic and social development for the future.

Therefore, digital transformation has become an important trend in the development of higher education, and we should actively face the challenges, learn from successful experiences at home and abroad, and promote the digital transformation of China's higher education to meet the development needs of the new era.

Education informatisation

Li Qing (2022, p.22-24) on 15 March 2021, the Ministry of Education issued the Notice on Strengthening the Work of Educational Management Informatisation in the New Era, which explicitly proposed to follow the trend of modern educational informatisation, make good use of big data technology, take the lead in upgrading the education and teaching management mode, and build an educational management informatisation platform of the school's characteristics, so as to provide technological protection for the school's academic affairs management and teaching implementation. After the release of the relevant policy documents, in the past two years, colleges and universities all over the country have been carrying out the construction of educational management informatisation in an intense manner, seeking new breakthroughs in school educational management informatisation through system integration, the use of big data technology, the construction of hardware facilities and the improvement of software systems. Although colleges and universities have made considerable progress, but in the actual construction work, there are still insufficient system integration, poor data sharing, poor service experience, duplication of facilities, etc., coupled with many colleges and universities affected by the traditional concept of education management, there has been a

tendency to "focus on teaching, light on management," resulting in colleges and universities in the actual construction of the education management information system encountered a lot of obstacles. This has led to many obstacles in the construction of actual education management information systems in colleges and universities. Based on the use of big data technology, this study rethinks the construction path of higher education management informatisation, proposes some innovative work methods to improve the quality of higher education management informatisation and promote the development of higher education management informatisation.

Li Yanxin (2022, p.559-561) the continuous development of college education informatisation can integrate teaching resources, release manpower, reduce the teaching burden of teachers, and improve the efficiency of their office and teaching; meanwhile, with the help of education informatisation in colleges and universities, students can carry out independent learning in the platform of teaching resources, teaching platforms, online classroom platforms, etc., to supplement and consolidate what they have learnt in the classroom, and to complete the efficient learning. Under the background of "Big Data + Artificial Intelligence", the development of education informatisation in colleges and universities has put forward new requirements, which require colleges and universities to make accurate choices of education informatisation paths to improve the level of education informatisation in a comprehensive manner. Based on the perspective of "Big Data + Artificial Intelligence", the paper analyses the current situation of education informatisation in colleges and universities, puts forward measures to build a teaching resource platform, enhance the awareness and consciousness of teachers and students in the whole university, and carries out the innovation of education form, creates a smart classroom, and builds an informative teaching mode to promote the development of data and intelligence of education informatisation in colleges and universities.

Li Mingbo et al (2023, p.361-322) rough development of higher education informatisation is the fatal short board of Chinese education modernisation, and higher education informatisation construction has become the most "disordered" part of upgrading the level of "double first-class" construction universities and guaranteeing the quality of talent cultivation in universities. In the perspective of precise supply, the construction of higher education informatisation has become the

most "disordered" part in improving the level of "double first-class" construction universities and guaranteeing the quality of university talent training. Under the perspective of precise supply, the precise construction of higher education informatisation should point to the value of four aspects, i.e. learning environment, teaching mode, education service and education governance. The study finds that the main problems of university informatisation construction are: inaccurate positioning of philosophy and thinking, inaccurate supply of capacity and literacy, inaccurate allocation of resources and systems, and inaccurate governance and evaluation and management. To achieve the accurate construction of information technology in colleges and universities, the path optimisation should be carried out in four aspects: focusing on interconnected thinking, enhancing the integration of technology and education, breaking the information silo, and insisting on the integration of governance and evaluation, in order to achieve the accurate supply of information technology construction in colleges and universities and improve the quality and efficiency of the high-quality development of colleges and universities.

Su Zilong (2023, p.116-121) china has stepped into the education informatisation 2.0 era, education informatisation comprehensively penetrates into the field of teaching and learning, and achieves deep changes to the modernisation of education through the transformation of teaching communication, teaching means and teaching methods. Education informatisation presents an increasingly significant role in promoting social progress, enhancing teaching quality and educational equity. From the perspective of education informatisation, this paper firstly retraces the introduction and development history of education informatisation in order to grasp the history and understand the current situation as a whole, then further explores the theoretical significance of education informatisation in promoting education fairness, and finally puts forward the strategic suggestions of education informatisation in promoting education fairness in the light of the high quality development expectation of education informatisation in the current and the future period of time, and the results of the study have an important influence on the exertion of the advantages of information technology to promote education fair development. The results of this study are of great significance to the promotion of educational equity by taking advantage of information technology in education.

Liu Peize et al (2023, p.30-33) in order to adapt to the needs of the deep integration of information technology and education and teaching, and to meet the needs of personalised learning of students in colleges and universities in the new era, the construction of new form teaching materials using a variety of media with rich expressive power should not be delayed. The study has sorted out the current situation of the development of new teaching materials in China, analysed the problems in the development of new teaching materials in China from the perspective of promoting the construction of new teaching materials in colleges and universities in the future, and put forward proposals to further promote the construction of new teaching materials in China from the perspectives of strengthening the unified planning of the state, fully mobilizing the enthusiasm of teachers of the "two first-class" colleges and universities, and enhancing the participation of the publishing and distributing units. It puts forward relevant suggestions to further promote the construction of new teaching materials in China, and endeavours to create new teaching materials that are more adaptable to the requirements of the times.

Duo Erxiang and Xu Yunfeng (2023, p.40-43) since China's 13th Five-Year Plan put forward the construction of "Digital China", digitalisation has gradually taken a leading role in the development of China's economy and society, and has profoundly affected the development and reform of education and other important industries. The digitalisation of education is an important part of the Digital China strategy, and during the 14th Five-Year Plan period, the State has introduced a series of policies and initiatives to strengthen the digitalisation of education, of which the Outline of the 14th Five-Year Plan makes it clear that "focusing on key areas such as education, promoting digital services for the benefit of all, and promoting digital services for the benefit of all". Among them, the Outline of the 14th Five-Year Plan clearly states that "focusing on key areas such as education, we will promote the universal application of digital services", and the 14th Five-Year Plan for the Development of the Digital Economy proposes that "we will accelerate the promotion of the digital supply of public service resources in the fields of culture and education, and the provision of networked services". In 2022, the Ministry of Education proposed to launch the implementation of the "National Education Digitalisation Strategy Action" at the National Education Work Conference, and General Secretary Xi Jinping pointed out in

the report of the 20th Party Congress that it was necessary to promote the digitisation of education, and to build a learning society and a large learning country with lifelong learning for all people. In February 2023, the CPC Central Committee and the State Council issued the "Overall Layout Plan for the Construction of Digital China", proposing to "vigorously implement the strategic action of national education digitalisation, and improve the national intelligent education platform". Taking digitisation as an engine, hauling the high-quality development of the education cause, promoting the comprehensive penetration of digital education, and establishing a perfect digital education system has become the main trend of the development and change of China's education industry in the new period.

Ma Xiaoyan (2023, p.85-86) with the constant updating of the level of information technology, the impact of the information age has fully penetrated into the development of the economy and people's lives. The development characteristics of information technology cover education for all, quality education, personalised learning, etc. How to make special people and ordinary people have the same educational privileges and better development opportunities is a new problem encountered by special education in the current information technology perspective. Relevant national laws and regulations stipulate that "information technology has far-reaching and revolutionary significance for the development of education, and must be given high attention". How to comprehensively promote the common development and progress of students and ensure the principle of fairness in education is an important embodiment and prerequisite foundation of education reform. Therefore, the mode of special education informatisation is derived and changes the limitations of the traditional special education mode, which also requires that the human resource management of special education under the perspective of informatisation be continuously improved and advanced, so as to adapt to the development mode of modern special education.

Shi Xueyi (2023, p.24-34) the international community's urgent need for education informatisation, and fully utilising its comparative advantage in promoting education informatisation and leading the implementation of the "Education 2030" goals, UNESCO has launched the "Use of Information Technology to Achieve Education 2030" initiative globally. UNESCO has launched the "Education 2030" initiative, and proposed three major strategies to promote the initiative, namely,

taking into account international standard-setting and national capacity building in education informatisation, building education informatisation solutions that cut across the sustainable development agenda, strengthening technological innovations in education in the context of the new epidemic, and evidence-based decision-making in education informatisation, which correspond to the three major strategies of "internal and external coordination". The three major strategies for promoting education informatisation correspond to the adoption of "internal and external linkage" to build localised education informatisation solutions in line with international standards, to promote global sustainable development efficiently with youth IT education as a lever, to accelerate the construction of a technology-enabled resilient education system in the post epidemic era, and to establish a global database on education informatisation based on the SDGs. However, there are tensions and checks and balances between UNESCO and the diverse stakeholders of IT in education, which to some extent limit the effectiveness of its interventions at national and local levels. These findings provide important references for the optimisation of UNESCO's education informatisation model in the light of the increasingly urgent task of implementing the Education 2030 goals.

Zhang Yuxi (2023) horqin district education training centre against the new situation of the new era of digital education new requirements, in the "training fusion, wisdom empowerment, innovation and development" concept lead, play training integration advantages, to education information technology and education training in-depth fusion as a hand, breakthrough in the traditional education training time and space limitations, embodied the modern training characteristics of wide coverage, high efficiency and good results. It has broken through the time and space limitations of traditional educational training and embodied the characteristics of modernised training with wide coverage, high efficiency and good results. Relying on education informatisation, traditional teaching and research activities are "moved" online, offline classrooms are transmitted at the same frequency online, online classrooms are observed and discussed offline, teacher training is broadcasted live and interactive, and teachers are trained to follow up in the cloud, which builds a new mode of online and offline hybrid wisdom education training, lays the foundation for the high-quality development of education training, and provides a foundation for the high-quality development of regional education, high-quality and balanced development

of education. Education quality development, quality and balanced development to provide modern technical support.

Liu Weimin and Fu Tao (2023, p.127-134) educational informatisation is an effective way to improve the quality of teaching and learning of the national common language and script. The paper sorted out the four stages of development of education informatisation to improve the quality of teaching and learning of the state general language and script, namely audio-visual e-learning, computer-assisted teaching, multimedia network integration, and "Artificial Intelligence + Intelligent Education", and proposed that in the historical evolution, information technology has played a role in enriching and upgrading the means of education, enhancing the efficacy of education and changing the way of teaching and learning. In the historical evolution, information technology has played an important role in enriching and upgrading educational means, enhancing educational effectiveness and changing the life form of teaching subjects, influencing and transforming classroom organisation, and continuously improving the quality and efficiency of teaching and learning of the national general language and script. By analysing the transmutation and future direction of the seven elements of teaching activities of the state general-purpose language and script under the background of education informatization, we put forward the paths of education informatization to improve the quality of teaching of the state general-purpose language and script: to improve the informatization literacy of the teaching subjects of the state general-purpose language and script; to build a teaching-learning-evaluation system for the teaching of the state general-purpose language and script. "It puts forward the paths to improve the quality of teaching and learning of the national common language: to improve the informatisation literacy of the teaching subjects; to build a platform for the integration of teaching-learning-assessment of the national common language; to construct a learning space for the national common language based on the Internet; and to construct a learning archive for the national common language based on the big data platform.

The key role of digitisation and informatisation in the global education sector highlights how they contribute to the reform and progress of education. China's 13th Five-Year Plan and 14th Five-Year Plan have clearly set out the strategic goal of promoting the digitalisation of education, and through a series of policy initiatives, digitalisation has gradually penetrated into all aspects of education, thus promoting

the high-quality development of education. On the other hand, UNESCO has also been actively promoting information technology in education globally to achieve its "Education 2030" goal. In practice, informatisation has been widely used in various fields such as educational training and teaching of the national common language. Through the mixed mode of online and offline, informatisation has not only broken the time and space limitations of traditional education training, but also greatly improved the quality and efficiency of education. At the same time, informatisation has also played a key role in improving the quality of teaching and learning of the national common language.

Overall, digitalisation refers to profoundly affecting and changing the development of the education industry, including but not limited to traditional education and training, special education, language teaching and other fields, which also indicates that the future development trend of education will rely more on informatisation and digitalisation.

Concept of Digital Resource Management

Xiao Long and Zhang Yuhong (2002, p.35-42) according to the library community's more common view, digital resources, also known as electronic resources, mainly refers to the production and distribution of commercialised official publications by publishers or database vendors, databases, full-text electronic journals and e-books, etc., which databases include reference databases (bibliographies, abstracts, indexes, full-text databases and factual databases. Synonyms of digital resources are also digital collections (Digital collections), electronic information (Electronic information), electronic collections (Blectronie collections), electronic publications (Eleotronicpublications) and electronic resources (Electronic resources) and other expressions. For the meaning of electronic resources, the expression of domestic and foreign varies, even the international standards are not the same, and the more authoritative are mainly the following three. 1. The definition of the Library of Congress. 2. The definition of the International Federation of Literature and Graphic Arts (LFLA). 3. The definition of the Ministry of Education of China's National Committee of College and University Graphic Arts.

Jiang Zhiyi (2008) 1997 library of Congress gave the original definition: "Electronic resources (Digital resources) refers to works that are presented through computer operations and are utilised in ways that include direct access or remote terminal utilisation. Some may require the use of peripheral devices connected to the computer, such as a CD-ROM drive.

Jiang Zhiyi et al (2011, p.162-168) in 1999, the International Standard Bibliographic Description (ISBD(ER)) International Standard Bibliographic Description for Electronic Resources) published by the International Federation of Library Associations (IFLA) again provided a more detailed description of electronic resources, i.e. "Electronic resources are materials used on computers, including materials that require the use of computer peripherals (e.g. CD-ROM drives), for interactive or non-interactive modes. The International Standard Bibliographic Description for Electronic Resources (ISBD(ER)) again describes electronic resources in more detail, i.e., "Electronic resources are information used on computers, including information that requires the use of computer peripherals (e.g., CD-ROM drives), in either interactive or non-interactive modes. Two types of resources are included: data (information in digital forms, text, graphics, images, audiovisuals, or mixed content) and programmes (instructions or data processing routines), in addition to combinations of electronic data and programmes (e.g., online services, multimedia)".

Xiao Long et al (2008, p.2-8) in 2004, in order to regulate the statistics and measurement work of university libraries, the National Committee of University Graphic Work of the Ministry of Education issued the "Guidelines for the Measurement of Digital Resources in Libraries of Higher Institutions (2004)", which clearly pointed out that: all the digital resources introduced by the libraries (including purchasing, renting, and being gifted) or built by the libraries themselves (including scanning, converting, and inputting), and possessing the right to use the magnetic or optical media or the network, are digital resources of the libraries. The digital resources of libraries are the digital resources of libraries.

Wu Lingling (2022, p.84-87) digital resources mainly refers to the transformation of relevant information, and after the transformation of data that can be recognised by the computer, the data after these recognitions are transmitted to a remote server, and finally the user through the network and other information technology to access the data. The digital resources of university libraries mainly

refer to the digital resources introduced or constructed by the libraries on their own initiative.

Wang Juan (2022, p.22-24) digital resources are relevant information resources that can be accessed by users with the help of network transmission technology, intelligent media or retrieval technology after transforming relevant information materials into recognisable computer numbers through digitisation technology and transmitting them to remote servers. The digital resources of university library are actively introduced by the library or built by themselves, with optical media, network access to the digital form of information resources.

Huo Chunmei et al (2021, p.117-122) digital resources are one of the manifestations of documentary information, which refers to all the documentary resources in digital form introduced by libraries (including purchased, rented and gifted) or self-built (including scanned, converted and recorded) with the right of use of magnetic, optical media or network. The types of digital resources mainly include introduced commercial databases, self-built and co-built featured databases, digitised paper resources, free online resources and open access resources.

Wang Yunhan (2021) academics divide digital resources into narrow and broad sense, in the narrow sense, digital resources can be equated with electronic resources, which are the information resources that are digitised in the form of text, images, sound and other forms of information stored on non-printed media such as light, magnetic, and transmitted in the form of optical signals and electrical signals, and reproduced through computers or other external devices. Broadly speaking, digital resources is one of the main forms of modern literature and information, is based on communication technology, network technology, computer technology and multimedia technology to form a digital form of release, access, use of the sum of information resources. In modern libraries, with the continuous increase in the number and types of digital resources in the collection, digital resources have gradually become a very important part of the library collection. And in the new library evaluation system, the library digital resource collection has become one of the important evaluation indexes. The digital resources discussed in this paper are based on the Guidelines for the Measurement of Digital Resources in Libraries of Colleges and Universities issued by the National Colleges and Universities Graphics Committee of the Ministry of Education in 2007, which states: "All digital resources in

the form of magnetic, optical media or network access, introduced by the libraries (including purchasing, renting and being gifted) or built by the libraries themselves (including scanning, converting and recording) are considered as the digital resources of the libraries. documentary resources, for the library's digital resources."

Yang Hang (2020) digital resources mainly have the following foundational features: the form of existence is a digital code, which requires terminal devices such as computers for transmission, and the information carriers are nonpaper media, such as optical, magnetic, and electric. In this study, the narrow level of interpretation is used, which refers to digital resources acquired by libraries through purchasing, such as e-journals, e-books, and databases.

Shen Siyang (2023, p.224-227) digital resources is based on the integration of computer technology, communication technology, multimedia technology and the application of the formation of optical, magnetic and other media as a carrier, in the form of digital release, access, use of information resources in general, including text, images, sound, animation, and other forms of presentation, mainly relying on modern information technology to achieve the effective use of resources. For university libraries, according to the relevant instructions in the Guidelines for the Measurement of Digital Resources in University Libraries (2007), the digital resources of university libraries include three types: introduced digital resources acquired through purchase, lease, and grant; self-built digital resources acquired through scanning, conversion, and input; and digitised literature resources with the right to use the network. Compared with traditional physical resources, digital resources have the following significant features: 1 large amount of information, fast update, 2 wide coverage of varieties, 3 easy to use.

In libraries, with the increasing number and variety of digital resources in the collection, they have gradually become an important part of the library collection, and even in the new library evaluation system, the digital resources collection has become an important evaluation index. According to the Guidelines for the Measurement of Digital Resources in Libraries of Colleges and Universities by the National Committee for College and University Graphic Engineering of the Ministry of Education, digital resources include the literature resources in digital form that libraries have introduced or self-built through various ways, and that have the right to use magnetic or optical media or networks.

The fundamental characteristics of digital resources include that their existence is in the form of digital code, which requires terminal equipment such as computers for transmission, and that the information carriers are non-paper media, such as optical, magnetic and electric. It includes a wide range of resources, such as e-journals, e-books and databases purchased by libraries. Digital resources are formed based on a variety of modern technologies, and their information carriers include optical, magnetic, etc., the sum of information resources released, accessed and utilised in digital form, which contains a variety of forms of content, and is mainly used effectively through modern information technology. For university libraries, digital resources can be acquired in various ways, including introduction,

Overall, The Digital resource management refers to digital resources are equivalent to electronic resources, which are stored in non-printing media such as light, magnetic and so on through digital forms of text, images, sound and other kinds of information, and transmitted and presented through computers or other devices. And in a broad sense, digital resources are regarded as the main expression of modern literature and information, which is based on communication technology, network technology, computer technology and multimedia technology, and the sum of information resources released, accessed and utilised in digital form.

Digital resource management strategies for university libraries

Xiao Long et al (2008, p.2-8) according to the current situation of digital resources in China's colleges and universities, the Ministry of Education of the Ministry of Higher Education Tu Tu Gong Committee shall cloth the "Higher Education Library Digital Resources Measurement Guidelines (2004)" according to the content of the database of the digital resources are divided into four kinds: 1. e-books. 2. electronic journals. 3. secondary literature databases. 4. other databases.

The first one is full-text database, which provides complete original literature data and integrates the function of searching and browsing the original text as one of the electronic resources. The second one is numerical database, which mainly contains numerical data, such as statistical data, scientific experiment data, scientific measurement data, etc. The third type is factual database, which contains factual data such as phenomena, situations, processes of people, institutions, affairs, etc., such as institutional directories, chronicles of events, statistical yearbooks, etc.

The digital resource paradigm in this paper will follow this definition, which refers to the electronic information resources and electronic information services acquired by users through the computer network, which can come from the library website or be accessed remotely from the library or the campus network, including e-books, e-journals, secondary literature databases, and other databases licensed by the campus IP control and the regional university library alliance. The four types of electronic resources and their services.

Huang Xinyun and Li Shaofeng (2020, p.26-29) Digital educational resources, also known as digital teaching resources, digital educational resources, educational information resources, etc., have not yet formed a unified and clear conceptual definition in the academic community. Compared with traditional educational resources, digital educational resources refer to a collection of resources that are specially designed and developed for the purpose of education and teaching, digitally processed and able to operate in an informatised environment, and serve educational teaching activities. According to the differences in sources, digital educational resources can be broadly divided into four types: independent research and development, free supply by the government, purchase for the market, and commissioned third-party development.

DeLone and McLean Information Systems Success Model

The DeLone and McLean Model of Information Systems Success, often abbreviated as the D&M IS Success Model, is a widely used framework to conceptualize and measure the complex dependencies and interactions of information system (IS) success factors. Introduced by William H. DeLone and Ephraim R. McLean in 1992, the model has since undergone refinements to adapt to the rapidly changing landscape of IS.

The D&M IS Success Model posits that information systems success can be assessed in terms of six interrelated dimensions:

System Quality: This refers to the technical attributes of the information system, such as performance, usability, and reliability. It focuses on the characteristics of the software application itself.

Information Quality: This dimension assesses the quality of the information that the system produces. Factors here include relevance, understandability, accuracy, and timeliness of the information.

Service Quality: This concerns the support provided to users of the system. This could come from a help desk, training sessions, or any other form of user assistance.

Intention to Use/Use: This dimension gauges user intention to use and the actual use of the system. Even if a system is of high quality, it won't be successful unless it's used effectively by its intended users.

User Satisfaction: This captures the responses and attitudes of users towards the system. It gauges how well the system meets users' expectations and requirements.

Individual Net Benefit: This is a measure of the benefits realized from using the system. It assesses the extent to which the IS contributes to the success of individuals, groups, or the entire organization.

Fei Xinyi et al (2018, p.161-171) In order to understand the progress of the applied research on the success model of D&M information system, and to summarise the deficiencies of the current research from it, so as to provide references for the direction of future in-depth research and application. [Methods/Procedures] We select representative empirical research literature based on the D&M model at home and abroad, summarise how the model is applied in practice, discuss the results of the research in different categories, and discuss the problems in the application of the model as well as the research directions that deserve attention in the future. [Results/Conclusions] It is found that the current application of the D&M model mainly focuses on four aspects, namely, the net benefits of information systems, factors affecting the success of systems, user-related problems, and the practice of system design and optimisation. The main problems in the research focus on the adjustment of the model structure and the interpretation of the variables in the practice environment, the horizontal comparison between information systems with differences, and the practice-oriented application is relatively small, and the existence of these problems also provides a worthwhile reference direction for future research.

Du Huiping (2015, p.30-33) introduced the D&M information system success model and its evolution process, and compared and analysed the different versions. The application of the model in the field of digital libraries is mainly achieved by expanding the model's independent variables and incorporating new mediating

variables, and verifying the effects of user subjective factors and digital library object factors on the utilisation benefits through the structural equation modelling method. The establishment of the success model of the specific application system of digital libraries provides a theoretical basis for the improvement of services and the efficiency of digital libraries.

Wang Wentao et al (2014, p.73-76) The article explains the background and theoretical foundation of the initial D&M model in 1992, and discusses in detail the progress of the evolution of the D&M model during 1992-2003, as well as the modification proposals put forward by scholars to address the problems of the D&M model. The new D&M model proposed in 2003 is compared with the initial model, and the revised D&M model is examined in the hope of helping users to understand the variables affecting the success of information systems and to improve the efficiency of information systems.

Based on the theories of the D&M IS Success Model, the research framework including: 1) System quality, 2) Information quality, 3) Information servise quality, 4) Intention to use, 5) User satisfaction, 6) Individual benefit.

System Quality

Kang Qi et al (2020, 49-54) in the New Media Consortium Horizon Report 2017 (Libraries) in the United States, January 2017 mentions that among the six major technologies affecting the development of libraries, including the Internet of Things, big data, digital technology, artificial intelligence, online authentication, and library service platforms, the latter five are mentioned for the first time and predicts that 2019 will see widespread adoption of library service platforms. In terms of the current status of library collection resources, with the proliferation of digital resources, such as e-books (E-books), web resources, open access resources (Open Access), institutional knowledge repositories (Institutional Reproprity, IR), scientific data, user-generated content (UGC), etc., the percentage of library funds used to purchase electronic resources has dramatically Rising, digital resources are gradually replacing print resources as the main body of the collection; in terms of library services, libraries to provide users with simple, easy to use, fast and convenient services has become a major trend, instant search, one-stop search services to replace the previous readers of the query method. Library service platform, is the original dispersed solutions merged, including the original automated integrated

system ILS, link server SFX, resource discovery and other seamless integration of paper resources and digital resources unified management, from the interview, cataloguing, retrieval of the whole process of management and the provision of these services, the selection of resources, print resource management, electronic resource management, digital asset management, meta-data management, links, solutions, resource discovery integrated in the same system. solutions, and resource discovery in the same system.

Zhang Tian (2022, p.255-258) taking the cross-platform resource collaboration system of digital libraries in the new era as the research object, and focusing on the problems existing in traditional libraries in terms of resource sharing, as well as the urgent needs of differentiated subjects on the model of "cloud service" of digital libraries under the background of the Internet, we discuss the two aspects of the system architecture and functions respectively, to create a more scientific cross-platform resource collaboration system to maximise the utilisation of library resources. The system architecture and functions are discussed to create a more scientific cross-platform resource collaboration system to maximise the utilisation of library resources.

Lina Dai (2022, p.28-30) under the traditional platform construction, libraries have made many attempts in resource construction, such as institutional knowledge base construction, various types of readers' decision-making procurement, electronic resource procurement, data resource construction, etc. However, it is difficult to relate different types of resources, resulting in many resource information islands, which makes the library's economic and social benefits low, and the readers' satisfaction with the library decreases, and it is constantly being marginalised. Based on the above reasons, in 2009, library colleagues in order to change the situation of libraries, recognising the need to reorganize the library business, in order to avoid blind, follow the trend of construction, and launch a study of the library platform. In recent years, with the development of computer technology, network technology and user image technology, the next generation of library platform construction has developed rapidly, and has become an important driver to promote the construction of library undertakings.

Sheng Quan. (2021, p.82-84) with the acceleration of university library intelligentisation construction, the business system is increasing, and the demand for

inter-system data exchange is getting bigger and bigger. The paper from the university library wisdom in the process of the problems arising from the proposed establishment of a suitable university library data exchange platform, and from the system architecture, key technologies and application of the three aspects of the discussion. The library business departments have built different business systems in phases and batches, the data standards are not uniform among different business systems, and there are heterogeneous data in the data department to a certain extent, which leads to the data flow of each system is not smooth enough, and produces the problem of information silos. How to open up the data conveniently and efficiently is a problem that school information technology has been trying to solve, and it is also the basis for building a smart library.

Kay Xu (2021, p.64-66) the mobile Internet has boomed with the popularity of smartphones and other smart devices. According to Tencent's financial report, the combined monthly active accounts of WeChat and Weixin launched by the company reached 963 million. It can be said that almost everyone who uses a mobile phone has WeChat installed on their phone and uses it regularly. WeChat has become part of people's daily work and life. More and more enterprises and institutions, also through WeChat to provide all kinds of services for its users. At present, domestic libraries, especially provincial and municipal public libraries and university libraries have basically opened WeChat public number, mainly providing readers with information push, loan management, book query, interactive communication and other functions. Most of these public numbers are mainly subscription numbers, and many libraries, such as the National Library, the Capital Library, Shanghai Library, Shenzhen Library, etc., have opened both subscription numbers and service numbers. At the same time, there are also many libraries that have developed APP and websites to provide services for readers. The opening of these channels has greatly facilitated readers and made a greater contribution to the promotion of digital libraries.

Dong Jingxiang and Qu Hongjun (2021, p.51-57) with the development and application of technologies such as Internet of Things, Big Data, Cloud Computing and Artificial Intelligence, the library's resource construction and service methods have undergone great changes, and the focus of the work has shifted from digital construction to intelligent and intelligent construction, and as the core of the library's

business and service operation, the traditional library integration system has exposed obvious deficiencies. How to build a new generation of library management system that is service-oriented, supports comprehensive perception, extensive interconnection and intelligent decision-making, and meets the needs of continuous innovation and development of libraries, provides integrated management of paper and electricity for resources, ubiquitous personalised and intelligent services for users, and data analysis and decision-making references for administrators, so as to better support the construction of intelligent libraries, which has become a research hotspot of the current library field.

Zhong Yihuan (2020, p.81-83) the construction of smart library is an important part of smart campus construction. This paper takes the concept of smart library as a guide, and researches the construction of four aspects of university library smart building, smart system platform, smart humanistic service, and smart evaluation function In April 2016, General Secretary Xi Jinping pointed out in the symposium on net information work that "we should promote the modernisation of the national governance system and governance capacity with informatisation, coordinate the development of e-government, and Build an integrated online service platform, and promote the construction of new smart cities in a graded and classified manner." To this day, smart city construction has become part of city construction. Colleges and universities, as an important intellectual component of the city, the smart campus has also become a trend in the development of college campuses. Library as an important symbol of the overall level of colleges and universities, intelligent construction has also become an inevitable road.

Kang Qi et al (2020, 49-54) in the United States, the New Media Consortium Horizon Report 2017 (Libraries), January 2017 mentioned that of the six major technologies affecting the development of libraries, including the Internet of Things, big data, digital technology, artificial intelligence, online authentication, and library service platforms, the latter five are mentioned for the first time, and predicted that the library service platforms will be widely adopted in 2019. At present, the domestic library industry and related industry members of the "next-generation library service platform" called a variety of forms, such as: "library service platform" with the continuous development of information technology and digital resources, library automation integrated management system (ILS) in handling the daily work of the

library. With the continuous development of information technology and digital resources, the Integrated Library Automation Management System (ILS) has become obviously insufficient in dealing with the daily work of libraries, especially the unified management and retrieval of digital resources and paper resources. In order to realise the sharing and unified management of resources and to meet the information needs of users, the Library has actively cooperated with system providers to propose and implement the "Next Generation Library Service Platform".

Dou Tianfang and Yang Hui (2020, p.2-7) library functions are constantly being given new connotations, but the protection of documentary resources is still the most important service function of libraries at present and in the foreseeable future. Therefore, exploring the literature resource protection path matching the information resource environment and optimising the literature resource protection service are still the basic skills that libraries should insist on doing well. Combined with the actual library of Tsinghua University, the current status of the library resource management and service and the construction of the integrated resource management platform are elaborated. The key issues in the process of platform construction are selected and analysed from the perspectives of construction ideas, processing principles, application effects, etc., hoping to provide useful reference for the construction and management of the domestic integrated resource management platform.

Rongguang (2020, p.15-18) big data platform through the library collection of book information, membership data and circulation data collection, analysis to achieve the regularity of information, can provide reference data for library decision-making, and on this basis, the correlation between the data for in-depth analysis. At the same time, through the platform IT intelligent monitoring system to achieve effective management and monitoring of the library terminal equipment, can improve the efficiency of the operation and maintenance of the library venues, so that readers get a better user experience. In the library service mode, the existing service system is mainly for the physical collection and electronic resources database for single-dimensional integration, lack of readers' information, collection information and various types of service information resources for multi-dimensional data analysis. In the latest functions undertaken by libraries, such as assisting government decision-making and rebuilding the entrepreneurial environment, it is necessary to

obtain and make use of all kinds of information contained in libraries, such as wireless webpage access time, data traffic, and the use of WeChat terminals in libraries, and other data. The construction of big data platform can lay a solid foundation for the construction of library system.

Zhou Wenyun et al (2021, p.48-50) at present, the data decoupling problem prevails in the management of book assets inventory in colleges and universities, combined with the problems encountered in the actual work, constructed the library information system backstage management mode, from the technical point of view of the establishment of the mapping relationship between the data of the two systems, to ensure the consistency of the data, in order to promote the smooth progress of the work of the university libraries and the state-owned assets management department, improve the work efficiency and quality of service. work efficiency and service quality.

From the above literature, "system Quality" refers to the technical attributes of the information system, such as performance, usability, and reliability. It focuses on the characteristics of the software application itself. The library's digital resources system is convenience for staff, underpinned by its stability. It boasts of responding quickly to operations, ensuring a seamless experience. Unrestrained by time, it offers 24-hour access and is accessible on-the-go thanks to mobile compatibility. Its instant user interface updates ensure constant relevance, while its design emphasizes efficiency and facilitates easy task completion. The system stands out for its ability to tap into various types of resources and search across multiple databases. Above all, it guarantees information and data safety, all while ensuring rapid download speeds.

Information Quality

Wang Chan (2016, p.400) digital library information resources mainly refers to digital information resources, it is through the digital processing of information, and then through the network for release, access and application, this kind of digital information resources need users to obtain information with the help of specific platforms, such as through information databases and so on. Digital library information resources can be divided into many types of forms according to different classification standards, and can be divided into real resources and virtual resources by storage form, and can be divided into e-books, e-newspapers, e-journals and so on by content expression, and can be divided into introduced and self-built by the

way of obtaining information resources. With the traditional library service model of network upgrading, information resources in the form of hardware carriers are a large number of digital process there are many information quality levels, which affects more factors, and the level of quality of library information resources has a direct impact on the effectiveness of the service, so focus on the quality of library information resources to enhance information services is an important issue in front of the current library managers.

Qi Na and Song Lirong (2015, p.64-68) entering the information era of the 21st century, the problem of information quality has gradually emerged with the improvement of information technology, the dramatic increase in the amount of information, and the accelerated transmission of information, from the social instability caused by rumours of information on the Internet, from the suspicion of the release of statistical data by the relevant departments, from the reflection on the information error accidents in medical care, production safety, and the gradual attention paid to the security of information and so on, which has shown that the research on the quality of information is a very important issue for library managers. As a multidisciplinary cross-cutting application field, the research on information quality has been developing rapidly in foreign countries, and the scope of research has been gradually expanded from theoretical exploration to various application fields, involving management information systems, databases, data models, knowledge management, medical and health care data management, accounting and auditing, data statistics, Internet and other aspects. Since 1992, some researchers in China have gradually paid attention to and explored the related research contents. Using the related analysis method of bibliometrics, we have tried to explore the changes in the research of information quality by domestic researchers from the perspectives of time distribution, theme distribution, journal distribution, and theme development trend, etc. We have also tried to explore the changes of information quality research by domestic researchers from the perspectives of time distribution, theme distribution, journal distribution, and theme development trend.

Xue Danyang (2023, p.131-132) digital information resources are the foundation of digital library collection construction, which is the top priority. Constructing digital library collections is the process of reorganising and reconstructing information resources in a digital state. Libraries need to classify,

organise and integrate a large number of information resources in order to achieve unified retrieval, management and authentication of information resources. After the information resources enter the library, the key factors affecting the quality of information resources are different at each stage. In the process of digital library information resource construction, the quality of information resources is an important aspect that affects the construction of information resources. For the acquisition, processing and storage phases of digital library information resources, the study of factors affecting the quality of digital library information resources hopes to draw the attention of the library community to the construction of high-quality digital collections and to improve the overall level of service of digital libraries.

Ruili Zhang (2021, p.1-3) digital resources have become one of the main manifestations of library literature resources. It organically integrates multimedia, computer, information and communication and other technologies to generate a digital form of release, storage, use and innovation of the sum of many information resources. Digital resources carry a rich and colourful information and documentary resources, including voice, text, symbols, numbers, images, videos, etc., which in turn enrich the extension and connotation of digital resources. Under the big data environment, libraries are able to access and store an increasing number of digital resources, which promotes their huge development opportunities and at the same time makes them face more challenges and pressures. How to effectively solve the library island storage, scattered distribution of digital resources, libraries should make full use of big data technology, such as: big data, intelligence, mobile Internet, cloud computing, Internet of Things, to build a scientific, standardised digital resource governance system, in the process of continuously enhancing the library service capacity, providing personalised reader services to enhance the comprehensive competitiveness of libraries, is of great value and significance. and significance.

Liu Chen (2020, p.172-173) with the development of society and the progress of science and technology, the era of big data led by cutting-edge technologies such as computers, the Internet, cloud computing and so on has arrived, which has had a profound impact on people's production and life, and has provided many convenient information service experiences. The allocation of educational resources in colleges and universities itself as a process of information integration, processing and handling, big data applications, which provides new ideas and methods, and has had a positive

impact. This paper analyses the impact of big data information quality on the efficiency of educational resource allocation in colleges and universities, and explores the effective measures to improve it. High-quality big data information output from colleges and universities can more quickly and accurately reflect the new needs of education, so as to complete the targeted output of a series of resources and improve the allocation efficiency. At the same time, the sharing of big data, so that students' access to information channels are diversified, the only way for colleges and universities to improve the quality of information output and create a new type of classroom, in order to attract students to learn actively under the internal drive of interest, improve the utilisation rate of educational resources, reflecting the intrinsic value of its configuration. In this process, the construction of high-quality big data information is the key to improve the attractiveness of school educational resources has a significant role, and thus improve the allocation of educational resources.

Chen Xu (2020, p.21-25) university institutional knowledge base can only reflect its own service functions and advantages by strictly controlling the quality of academic information resources. We analyse the connotation and characteristics of institutional knowledge base in universities, study the factors affecting the quality of academic information resources in institutional knowledge base and the method of designing information quality control standards, summarize the characteristics of institutional knowledge base in universities, and study the quality control strategy of academic information resources, aiming at solving the problem of scientific management and use of academic information resources, and promoting the enrichment and development of the theory of institutional knowledge base. A phased quality control strategy for academic information resources of institutional knowledge bases in universities is proposed.

Zhao Yingxing (2018, p.166-167) information resources are the cornerstone of the development of libraries, without rich information resources, libraries can not meet people's needs for books, and also lose their own significance. The library is an important tool for the public to obtain books for reading, with the development of information technology, in order to make the library more convenient, in order to meet people's cultural needs, the digital library came into being. The rapid development of information technology, to all walks of life has brought the impact

and change, the library is also so. In the information technology environment, the library service system has also undergone great changes. When the library into the digital and network, the form of its collection will also undergo many changes, such as the increase of electronic documents. In addition, under the support of the network, the library service function is further expanded, no longer subject to the constraints of time and space, people can enjoy the library at any time and any place to bring a convenient way to read. A major criterion for evaluating the quality of digital library services is the quality of the information resources it provides, therefore, it is very important to study the factors affecting the quality of digital library information resources.

Jing Xie (2016, p.235-246) libraries are the centre of literature and information resources, and their purpose is to provide users with effective information resources and maximize the satisfaction of users' information needs. The information resources collected by libraries are mainly divided into two types: paper resources and electronic resources. Traditional libraries mainly collect printed paper information resources, while taking into account the collection of network information resources. Evaluation of information resources is to analyse and evaluate the status, function and role of the information resource structure system. The information obtained through such analysis and evaluation can be used as a basis for information institutions to formulate development policies and provide objective basis for controlling the development process of information resources, so as to establish a highly effective information resource system and provide more effective information resource services. The evaluation standard of library collection information resources is to examine the development and utilisation of library information resources and the ability to meet users' information needs.

Ma Xiaolan (2022) abundant and high-quality basic digital educational resources and their effective application are the key to the sustainable promotion of education informatisation. However, as far as the current construction situation is concerned, the "shortage" and "waste" of high-quality basic digital educational resources still exist for a long time, which seriously limits the healthy development of China's education informatisation. In this paper, we take the basic digital education resources of Shaanxi Normal University Publishing House as the object of research. As a publishing enterprise, in order to meet the readers' needs for multimedia learning

and reading in all kinds of scenarios, it should review and plan its own content resources, strengthen the management of content resources, and improve the efficiency of utilisation. From the perspective of user demand, we solicit users' opinions, refine the key elements affecting the evaluation of the quality of digital educational resources, and construct a relatively scientific and reasonable preliminary evaluation model on the basis of empirical analyses. Finally, the evaluation indexes are tested for reliability and validity to ensure the usability of the quality assessment index system and to adapt to the evaluation of digital educational resources.

To summarise from the above literature, "information quality" refers to the quality of the information that the system produces. Factors here include relevance, understandability, accuracy, and timeliness of the information. In the modern digital landscape, libraries used by staff prioritize Prompt Updates to ensure their resources remain current. One of the hallmarks of these digital assets is their Accuracy and Comprehensiveness. Backed by High-quality Publications, the content guarantees Extensive Coverage across subjects, with the advantage of Continuous Expansion. These resources are fortified by Built-in Databases which accentuate their Helpfulness. What sets them apart is their Distinct Content which, when searched, yields Relevant Search Results. Additionally, the incorporation of diverse Multimedia Content like videos and audios enriches the user experience, making research both comprehensive and engaging.

Information service Quality

Peiqi Han (2023, p.109-111) as the main position for storing literature and information materials, libraries can provide readers with a comfortable reading environment and rich book resources, and are the main places to improve people's comprehensive literacy and provide convenience for people to browse information. Influenced by modern information technology, the positioning, function and management of libraries have undergone radical changes, and libraries have gradually evolved into cultural bases integrating information dissemination, knowledge popularisation, recreation and other diversified functions. In order to improve the level and quality of library services, we need to regulate the library circulation management mode, which requires the circulation department to target the innovation of library information service mode. At the present stage, the library

circulation information service still faces many problems, the circulation department should start from the actual situation, according to the library's functional requirements to formulate the information service quality optimisation strategy, in order to give full play to the library for readers to provide high-quality literature and information resources.

Zhao Shuquan (2023, p.45-47)with the continuous development of modern information technology, the library service has far exceeded the traditional mode, which follows the development trend of information technology, constantly breaks through the boundaries of organisation, technology and geography, and develops in the direction of modernisation and intelligence at a high speed. Libraries are not only limited to traditional functions such as collection, storage and transmission, but also pay more attention to modern information management and intelligent reader services. Therefore, the traditional five laws of librarianship of Nguyen Gonazan, the father of Indian librarianship, have been given a new meaning. Many scholars have studied about the five laws of librarianship. Starting from the basic content of the five laws, the library functions under the modern information service system and the meaning of the five laws of librarianship in today's situation are elaborated, and it is proposed that the development of modern libraries must change their concepts, and that traditional theories together with the analysis of new meanings can be used as a theoretical guide to the library services under the modern information service system.

Zhu Shumei (2023, p.213-216) the arrival of the big data era has had a new impact on all walks of life, especially the library in the development process of information technology construction has become an important topic. In order to fully improve the level of information technology construction, the relevant library staff need to strengthen the in-depth interpretation of the main points of information technology construction, the integration of big data technology into different work libraries need to build a combination of information technology programmes, and also need to use big data technology to quickly deal with the library information technology construction of the basic information, and effectively weed out the contradictions existing in information technology construction, highlighting the importance of the work with the times. Keeping abreast of the times, giving full play to the advantages of library information technology construction, using information

technology to sum up the rich working experience, so that the library information technology construction under the background of big data is constantly developing in the direction of maturity, to meet the readers' reading needs. The link, comprehensively safeguard the library management level, so that the effect of the use of big data technology can meet the expected requirements, and promote the stable development of the library in the new period.

Li Zichen (2023, p.109-111) digital library is an important direction for the development of libraries in the new period. In order to better keep pace with the times and provide readers with quality services, libraries should constantly carry out in-depth personalised information services. Libraries need to explore new service modes and create a personalised information service platform to avoid spending too much time when readers search for information resources. At the same time, libraries can also conduct dynamic tracking of readers' search records to improve the utilisation of library resources, thus effectively improving the level of service. Personalised service is to provide readers with customised services, which can improve service quality and achieve the innovation and development of digital libraries. Now we briefly discuss the status quo and existing problems of personalised information services in digital libraries, explore the path of personalised services in digital libraries, and hope to provide reference for the construction of digital libraries.

Li Shujuan (2023, p.144-149) the normalisation of epidemic prevention and control has led to fundamental changes in the original information service mode of university libraries, as well as new and higher requirements for the remote information resource service mode. Accordingly, by investigating, analysing, sorting out and summarising the existing technologies of remote resource service, information service and knowledge service in university libraries, we have analysed the working practice of the library of Henan University of Technology and the results of the investigation and research, sorted out the relevant data of the teachers and students, and constructed the cloud platform of remote information resource service with the aim of constructing a good basic platform of information resource and network service, and creating a remote resource service, information service and knowledge service new mode - information resource service cloud platform, give full play to the remote service expertise, make it a good information resource base and network service base platform, maximally satisfy readers' personalised needs, and

realise a socialised, intensive and professional information service mode, so as to adapt to the national The latest requirements of information construction, so that the whole academic communication environment of benign development, which will be the direction of efforts and development trend of university library work.

Mao Weiwei (2023, p.80-82) researches on the new trend of library information service in the network era, describes the impact of the network era on library information service, and introduces the characteristics and principles of library information service in the network era, on the basis of which it explains the new trend of library information service in the network era, and provides references to libraries in the network era to find a new direction for the development of information service and to improve the quality of information service through the research. The study provides reference for libraries to find the new direction of information service development and improve the quality of information service in the network era. Nowadays, libraries have popularised the computer network information retrieval technology and provide readers with more convenient services with the help of this technology. With the continuous development and improvement of network information retrieval technology, it has gradually played an increasingly important value in the process of library services, and has become a major trend in the development of libraries, so it can be seen that the network information technology means by virtue of its own powerful advantages has formed an environment where knowledge and information are transmitted freely without boundaries, and the readers can make use of powerful search tools to carry out CD-ROM searches and online searches and search for news in the network world at any time and any place. Readers can use powerful search tools to conduct CD-ROM search and online search, and search for news and information in the network world anytime and anywhere to maximise the absorption of knowledge.

Song Jing (2023, p.103-105) information service is the most basic service of university libraries, and under the background of the era of comprehensively accelerating the pace of high-quality development of higher education, comprehensively improving the information resource service capacity of university libraries and providing comprehensive and timely information resource protection for university teachers and students have certainly become the most important priority. In the meantime, there are still very serious challenges to face. Starting from the

overview of college library information resource service, several strategies of college library information resource service are analysed. College library information resources mainly refers to all the resources that are excavated and processed according to the readers' practical needs in the process of library construction and operation, which mainly involves paper literature resources and digital resources under information technology. In the road of college library information resource construction, the main work is to capture, select, organise all kinds of information resources, and ultimately according to the actual needs of the plugging for comprehensive development, and then form a resource system that can meet the readers' needs for all kinds of resources.

An Jingyi and Yang Fei (2023, p.74-80) service is the starting point and landing point of library work, and information service is the starting point and purpose of information management activities. With the surge of readers' demand for information, it is necessary to study the continuous use of information services by users. Through the collection, collation and analysis of related literature in the past ten years, we know that the existing research on information system adoption has been insufficient in many aspects, and we shift the focus of the research to the behaviour of users in the post-adoption stage, i.e., the stage of continuous use; we focus on the perspective of students' users' needs and experiences, and we study the library information service in the Internet environment based on TAM, ECM-ISC and D&M models, which are based on the perspective of students' users' needs and experience. model, study the influence mechanism of the continuous use of library information services under the Internet environment, combine the characteristics of information services in higher vocational colleges and universities, construct a conceptual model of the continuous use of library information services under the Internet environment, carry out a questionnaire survey for student users, and use structural equations to carry out data analysis and validation. It provides reference basis for constructing networked and personalised information service system of higher vocational library.

Xu Tiancai et al (2023, p.137-139) the construction of disciplinary information service platform is an important performance to help the development of disciplines and enhance the information service capacity of university libraries. The article uses literature research method and network research method to study and analyse the

theoretical and practical status of the construction of university library discipline information service platform, and the results show that there exists insufficient attention to university library discipline information service platform, lagging demand feedback, incomplete service coverage and irregular data management. The article takes the discipline information service platform of Chongqing University Library as an example, constructs a platform service system, and realises knowledge services such as literature, consultation, training, competitive intelligence, etc. by creating a targeted discipline information service platform to satisfy the decision-making reference needs of scientific research, scientific research management and development planning. In this way, we can innovate the discipline information service mode and improve the quality of discipline services in university libraries.

Zhang Xutong (2022, p.62-63) big data technology can quickly obtain information in many kinds and large amounts of data. College libraries are the most concentrated place of industry data and information knowledge, carrying the responsibility of storage and dissemination of various types of scientific knowledge, which is the main direction of the construction of college library information service system. Under the background of big data, people-oriented, focusing on user experience and innovative service mode can really make a new leap in college library information service. Starting from the perspective of college libraries, the object of library information service, service concept and service mode are elaborated respectively, and innovative service strategies of college libraries in the information age are proposed, so as to continuously improve the quality of library services to help achieve the sustainable development of libraries.

Summarised from the above literature, "information service quality" refers to the support provided to users of the system. This could come from a help desk, training sessions, or any other form of user assistance. The university library's digital services significantly enhance academic research and efficiency for staff. They offer vital training, guidance, and specialized academic guidance through subject librarianship services. When navigating these digital resources, staff benefit from a swift response from customer service, and any issues they face are addressed with precision. The library ensures multilingual services and personalized recommendations. It also emphasizes long-term resource storage, preservation, and the introduction of convenient new features. Additionally, the library values

feedback, addressing staff's opinions effectively. Tutorials and guides further aid staff in their use of these resources.

Intention to Use

Suling Duan (2023, p.44-49) traditional Q&A methods can no longer meet the changing needs of readers. Based on this, the article proposes a deep learning method for intelligent Q&A in libraries based on readers' intentions. The method firstly identifies the reader's intention and discovers the background and focus of the questions asked by the readers, secondly calculates the similarity of the readers' questions to find out the most relevant questions from the FAQ database, and finally generates the answer sentences using the CPT model that incorporates the reader's intention. Experiments are conducted on the existing dataset, and the results show that incorporating readers' intention in the library Q&A method has a facilitating effect on answer generation.

Yuan Hong (2019, p.49-57) search intention is the starting point of the information search process, and search strategy is the planning of search behaviour, and the correlation mechanism of the two is a concentrated manifestation of the dynamic development law of search behaviour, and the study of the correlation mechanism of search intention and search strategy selection is conducive to an in-depth understanding of the causes and processes of the emergence and change of search behaviour. [Methods/Procedures] We collected data on search intention and search strategy through questionnaires, used UCINET to study strategy selection preferences under different intentions, used SPSS modeler to explore strategy combinations under different intentions, and used ROST CM to study the phenomenon of information encounter based on different intentions. [Results/Conclusions] Searching and browsing are the most common search strategies used by users when searching for information; users' preferences of search strategy selection for different search intentions show significant differences, and different patterns of search strategy combinations are also shown; information chance encounters are more likely to happen in the contexts of information searching, resource downloading, and advice consulting.

Cheng Yuhua et al (2016, p.78-83) with the popularisation and development of information technology and the continuous improvement of the users' own information literacy level, the scope of the use of professional literature databases

and the way of using them have undergone great changes. Behind this change is the change of users' intention of searching when using literature databases. It is necessary to establish an organisational system of searching intention that reflects a set of searching behaviours of users, and use it as a bridge to connect information demand at the front end and searching behaviours at the back end. The article puts forward a preliminary classification framework of users' intention to search in literature databases and a model of its influencing factors, and takes medical literature databases as an empirical field, and carries out statistical tests based on questionnaire surveys to validate the influence of the relevant factors in the model on users' intention to search. The results show that the influencing factor model is basically verified, the user's professional role and seniority factors are the main influencing factors, and the user's environment and the conditions of use have an impact on the intention, but it is relatively weak.

Li Aiming (2015, p.68-71) aiming at the semantic bias and retrieval topic shift problems existing in current query expansion methods, a query expansion method based on ontology and user query intent is proposed. The method uses ontology to provide semantic knowledge to solve the semantic bias and ambiguity problems in the query expansion process, and combines the user query intent to carry out the secondary screening of the initial query expansion concept set to avoid the retrieval topic shift problem in the query expansion process. The experimental results show that the method achieves the desired effect, which not only can effectively improve the retrieval performance, but also can avoid the problem of query topic shift.

Zhang Xiaojuan (2014) in today's era, information is growing exponentially, and while the information society brings rich information to users, it also makes users easily lose their way in the information ocean. Accurately and quickly obtaining the required information from the huge amount of information resources has become the direction of information service providers' continuous efforts, in this context, search engines have become an important tool to help users quickly locate the Internet resources and obtain relevant information. However, the user input to the search engine short query fuzzy and ambiguous, usually can only roughly express the user's information needs, therefore, the user urgently hope that the search engine can automatically identify the query contains the user's intention, directly return to the document related to its information needs. Therefore, the query intent (i.e., the

query should contain the user's information needs, goals, etc.) identification is the current academic and industry a research hotspot.

Among them, query intent classification under a given class system is an important research direction for query intent recognition. Most of the current research is based on the classification system proposed by Broder (i.e., query intent is divided into information, navigation and transaction classes), and the main work is to explore how to effectively differentiate between information and navigation classes, while there is little research on how to achieve automatic classification of information, transaction and navigation classes. The classification information of query intent should eventually be used to guide search engine performance optimisation, and there are fewer studies on how to use query intent classification information to guide search engine optimisation.

Zhou Zhicheng (2011, p.116-119) the user-based collaborative filtering is more suitable for university libraries in the application of information recommendation due to the comprehensive user background and resource characteristics. A user intent clustering method is proposed to reduce the performance of the recommendation system due to the increase in the space of digital resources in the collection and the problem of data sparsity. By using the K-m eans algorithm, we cluster the users with similar intent eigenvalues of resource categories to improve the real-time recommendation and reduce the impact of data sparsity on information recommendation. The experimental results show that the collaborative filtering algorithm based on user intent clustering can effectively improve the recommendation quality.

In summary, "intention to use" refers to gauges user intention to use and the actual use of the system. Even if a system is of high quality, it won't be successful unless it's used effectively by its intended users. In the university's digital library setting, the Frequent Use of the retrieval feature signifies its pivotal role in aiding academic activities. The library proficiently Meets Needs, offering an Accurate Understanding of the staff's demands, and subsequently, Enhanced research Efficiency. Staff place their trust in its information Reliability and Accuracy, enjoying the Ease and Convenience it brings to achieving their objectives. Their Enjoyment using the resources often translates to Recommendations for peers. The library's adept Alignment with Expectations and its unwavering emphasis on Privacy and Peace of Mind foster a harmonious rapport between the staff and the library services.

User Satisfaction

Zhang Wenxin et al (2020, p.104-107) nowadays, traditional libraries are facing the challenge of modern technology, and evaluating the demand degree of related technology from the perspective of user experience is an important basis for libraries to reasonably introduce and update modern technology. In this study, through questionnaires, expert interviews, literature research, spss analysis and other methods, the readers of college libraries in Xi'an City, China, were investigated to analyse the factors influencing the application of modern technology in libraries on readers' satisfaction. It is concluded that libraries should focus on the development of electronic computer technology, and at the same time pay attention to the introduction and updating of storage technology, automated transmission technology, document reproduction technology, and strengthen the publicity of the application of related modern technology and equipment, and other conclusions.

Feng Na (2017, p.141-143) taking the library of Henan University of Science and Technology Kaiyuan Campus as an example, the reader satisfaction of college libraries was studied by using fuzzy comprehensive evaluation theory. Through designing a questionnaire for investigation and analysis, the data of readers' satisfaction with the library were collected, and then an appropriate index system was selected to establish a reader satisfaction model for college libraries based on fuzzy comprehensive evaluation, and the results of the model showed that there is a certain space for improvement of readers' satisfaction, and suggestions for improving readers' satisfaction were given.

Liao Changmin (2018, p.100-104) in response to the status quo of fewer studies on reader satisfaction surveys in university libraries, taking the library of Xihua Normal University as an example, a questionnaire was designed based on the improved Lib QUAL+ model for student readers of different genders, majors and academic qualifications, and the data collected by the survey were further statistically analysed. The results show that the library exceeds the minimum acceptable reader satisfaction score in the 25 evaluation indexes of service effect, information control and environmental facilities, but there is still a gap with the ideal reader satisfaction score in the readers' mind. The results of the study can provide a reference for the future construction and development of other college libraries.

Song Chengcheng (2018, p.222-225) the establishment and management of college libraries is an important content to show the style of the school, but also an important way to improve the effectiveness of human resources. Based on this, this paper focuses on the measures related to the implementation of fine management in college libraries through the introduction of the fine management of college libraries and its necessity.

Han Xiao (2019, p.56-60) the article intends to select potential variables, establish measurable variables and structural relationships, and establish a reader satisfaction index model for college libraries. Taking a university library in Xi'an as the research object, the reasonableness of the constructed reader satisfaction index model of university libraries is examined. Prepare a questionnaire, take the reliability and validity analysis, deal with the missing data of the data sample, and test the model effect and parameter estimation. Improving the perceived value and perceived quality can get better reader satisfaction value.

Kong Chao and Ding Xuan (2014, p.60-64) starting from the influencing factors of readers' satisfaction, the theoretical model of evaluation system is constructed, data are collected through questionnaire surveys, the validated factor analysis model is the main research method, and the evaluation system of readers' satisfaction in college libraries is constructed based on the fitting model of the correction indexes, and empirical analyses are carried out, and finally, rationalised suggestions are put forward to improve the quality of readers' service work from four aspects. It is hoped to provide the basis for scientific decision-making to improve the quality of reader service work.

In summary, "user satisfaction" refers to the responses and attitudes of users towards the system. It gauges how well the system meets users' expectations and requirements.The staff expresses satisfaction with the overall user experience of the digital library, appreciating its clear and aesthetically pleasing user interface. They commend the loading speed and the high service quality. The information quality is considered top-notch, and the range of resources, including e-books, papers, and audio-visual materials, is found to be sufficient. These resources enhance their research efficiency. Additionally, the library's technical support is deemed effective, and the library's proactive approach in frequently updating digital content is appreciated. Furthermore, its categorization and tagging system is straightforward, making it easy to understand and use.

Individual Net Benefit

Ma Jianxia (2005, p.37-40) the article analyses the importance of post-evaluation of digital resources in libraries, explores the content and methods of conducting post-evaluation of digital resources in libraries, and discusses the problems of post-evaluation of digital resources in libraries in China at present.

Xu Fang (2014, p.56-61) adopting the experimental research method, we analyse the influence of six individual difference factors, namely, educational background, gender, retrieval skills, retrieval experience, browsing skills and browsing experience, on the evaluation of digital library users' interactive experience, and we find that: different users' individual difference factors have different influences on the evaluation of different digital library interactive experiences; the same individual difference factors have different influences on the evaluation of different digital library interactive experiences; the same individual difference factors have different influences on the evaluation of different digital library interactive experiences; and the same individual difference factors have different influences on the evaluation of different digital library interactive experiences. experience evaluation; different user individual difference factors have different impacts on different digital library interaction experience evaluation measurement indexes; digital libraries should focus on the measurement indexes of interaction experience evaluation when designing.

Zhou Wenjie (2017, p.47-56) based on the user-centred perspective, the article analyzes the functions of the public library system in achieving individual information enrichment, participating in educational activities and promoting individual learning from the theoretical level. In terms of realising individual information enrichment, the theory of personal information world provides a holistic perspective, tools and evidence for understanding the phenomenon of information rich-poor differentiation, thus providing a basis for explaining the rationality of public libraries as an institutional arrangement for promoting individual information enrichment. In terms of participation in educational activities, the public library system responds to the essence of education, provides conditions for lifelong learning, internalises culture, offers possibilities for open education and provides important hidden curriculum resources for learners. As far as promoting individual learning is concerned, schools of learning theory such as behaviourism and cognitive school have provided explanations for the psychological mechanism of promoting

individual learning in the library profession from different perspectives. Interpreting the functions of the public library system based on the user-centred perspective will provide important insights for the public library system to clarify its status and value and to design a reasonable development path.

Zhang Cong and He Jianfeng (2017, p.108-112) based on the matching theory and the theory of technology adoption behavior to construct a theoretical model of the influence of mobile library users' intention to use behavior, to explore the matching relationship between users' individual innovativeness and the new technology service of mobile library, in order to put forward the constructive suggestions to promote the mobile library, and to maximize the value of its investment.

Peng Aidong and Xia Lijun (2018, p.33-43) explored the effect of micro-services in college libraries from the user's perspective and identified the factors that have a significant impact on the effect of micro-services to provide guidance suggestions for the construction of micro-services in college libraries. The results of the study show that: overall, the interviewed users evaluate the effect of micro-services in college libraries higher; the user-perceived micro-content diversity, micro-knowledge content helpfulness, micro-platform stability, micro-service interactivity is slightly lower. Micro-service quality, micro-content quality, micro-platform system quality will have a direct positive and significant impact on user satisfaction, and the degree of impact decreases in turn; user satisfaction has a direct positive and significant impact on user benefits, while micro-content quality, micro-platform system quality and micro-service quality indirectly affect user benefits through the intermediary of user satisfaction; user satisfaction has the greatest impact on the intention of continued use, followed by micro-content quality, user benefits, micro-platform stability, micro-service interactivity, and micro-service interactivity. User satisfaction has the greatest influence on the intention to continue using the service, followed by micro-service quality, user benefit, micro-content quality, individual perception, and micro-platform system quality has the least influence.

In summary, "individual net benefit" refers to a measure of the benefits realized from using the system. It assesses the extent to which the IS contributes to the success of individuals, groups, or the entire organization. primarily digital library facilitates research and offers time-saving benefits. The library's resources are not

only of high quality but also enhance learning efficiency. It assists staff in making better decisions and makes the research experience an enjoyable process. The library's varied resources ensure a holistic development while fostering self-directed learning. Furthermore, its role in contributes to career development. With the added advantage of helpful courses & tutorials and granting easier access to the latest information, it remains a cornerstone for academic and professional progression.

Concept about stratety for developing

Wang Fang (2019, p.50-56) "internet +" plays an important role in boosting the development and reform of college libraries, but it also makes college libraries have a lot of problems in attracting college students' users, which requires college libraries to redesign and reconstruct their service concepts, capabilities and strategies. Only by increasing investment, strengthening the digital construction of information technology, taking the initiative to integrate with the Internet, innovating service concepts, changing service modes, protecting intellectual property rights and personal privacy, and providing teachers and students with convenient, high-quality and humane services, can college libraries cope with the challenges and impacts, and attract more college students to use the libraries to enjoy the joy of reading and grow up healthily.

Qiu Yangceng (2021, p.160-162) library management concepts and methods are also constantly innovating, under the digital environment, the orderly promotion of library management innovation activities, not only in line with the needs of social development, but also to mobilise readers' interest in reading. Effective innovation strategies should be adopted to enhance the level of library management innovation in a sequential manner through strengthening the awareness of innovation, cultivating innovative talents, improving the management system, updating the graphic materials, and so on, in order to contribute to the benign development of the library industry.

Hou Cunlian and Yu fenger (2022) library Information Resource Management Strategy, Optimisation of Information Technology Management System. Give full play to the practical role of information technology in library library information resource management, the library in the introduction of information technology management system on the basis of the library, but also need to carry out continuous

development and improvement of its functions. Improvement of library information service mode. In order to achieve the purpose of improving the book information service mode, libraries should avoid the use of long-term monolithic book information mode, but should follow the changes of the times to make appropriate improvements in the information service mode. Strengthen the construction of data resource base. Libraries should build a systematic and perfect data resource base to provide strong support for library information resource management. In the specific implementation of this work, libraries should build up their own data resource base with the help of professional network technology companies, and the function development of the data resource base should be closely in line with the management of library information resources.

He Jianguo (2023) under the era of big data, for the development of libraries to bring a certain impact, library managers need to analyse the era and the people's needs for libraries, clear the significance of library management under the era of big data, focus on user preferences, combined with the big data technology to build a new model of library management, in order to achieve this goal, the library management personnel need to be self-motivated to learn big data technology, with the ability to use big data technology, and the ability to use big data technology. In order to achieve this goal, library managers need to learn big data technology, have the ability to use big data technology, and at the same time pay attention to security management, increase the investment of library construction funds, which will help libraries to catch up with the trend of the times, and enhance the competitiveness of libraries in the market.

Li Qiaoli (2022) digital environment to bring the advantages of library management reform and innovation, and constantly optimise the library management mode, innovative library management strategy, for the general public to provide high-quality book lending services. In this paper, a brief introduction to the advantages of library management innovation in the digital environment, and based on this proposed management innovation strategy, in the current digital environment, library management has a more distinctive direction for future development, can effectively improve the quality of library services, the majority of library management staff should fully understand the library in the process of urban cultural construction of great significance, and constantly optimise the management mode, enhance the level of library construction. The library management staff

should fully understand the significance of library in the process of urban culture construction, optimise the management mode, and improve the level of library construction.

Du Qunying and Liu Huaiyu (2023) new media is an inevitable trend of the development of the times, which brings certain challenges to the management of university libraries, and at the same time, it is also an opportunity to promote the innovation of university library management. As a university library, we should grasp this opportunity, analyse the advantages of the new media environment, the shortcomings of our own management, and make constant improvements with the help of new media. For example, librarians need to establish a new media awareness, constantly improve their professionalism, internally based on new media technology to achieve the innovation of library management mechanism, the establishment of library digital resources, and further expand the library services and content, in order to better meet the needs of teachers and students of colleges and universities on book lending, improve the quality of library management, and promote the long-term development of the library.

Zang Weihan (2022) survey found that there are still some problems in the construction of digital resources in university libraries in Hebei Province: digital resources are not rich in type, and the organisation is not clearly revealed; the construction of self-built featured databases is not balanced; the degree of participation of users in the construction of digital resources is low; the degree of digital resources co-construction and sharing is low, and there is a risk of copyright; the digital resource management is not standardized, and there is a lack of integrated resource management platform; Lack of talents and insufficient funds for digital resource construction. Optimisation strategies: enrich the types of digital resources, standardise the organisation of digital resources; increase the construction of self-built featured databases; increase the participation of users in the construction of digital resources to meet users' needs; strengthen the alliance of university libraries and pay attention to the issue of copyright of resources; build an integrated resource management platform to improve the efficiency of resource management; pay attention to the integration of resources and services to enhance the level of service; cultivate professionals in the construction of digital resources to guarantee the construction funds. Guarantee the construction funds.

Lou Baiyu (2022) in the analysis of public library digital reading resources management of the main problems, elaboration of blockchain technology on the public library digital reading resources management on the basis of the reality of the role of the blockchain technology, to build an operable practice path, namely, with the help of the blockchain distributed network of fine collection of digital reading resources, through the blockchain consistency protocol to improve the efficiency of the digital reading resources processing, the use of the blockchain super ledger model. Using blockchain super ledger model to enhance the storage performance of digital reading resources, relying on blockchain asymmetric encryption technology to create a digital reading resource management firewall by virtue of blockchain technology to properly manage digital reading resources in public libraries is the focus of attention of today's domestic graphic community, the article combines the objective reality of China's public libraries, and puts forward the blockchain for the collection, processing, storage and push of digital reading resources. The article combines the objective reality of China's public libraries and proposes a blockchain management strategy for the collection, processing, storage and pushing of digital reading resources, in order to improve the security, economy and targeting of digital reading resources management in libraries.

Wang Qianli (2022) resource building is the foundation of all work carried out by libraries. Library is a place where information, knowledge and data are highly concentrated, and rich collection resources can be used to provide diversified and innovative services for users. In order to meet the information needs of users, college libraries at home and abroad constantly increase the construction of digital resources. For the digital resources that college libraries spend a lot of money to buy, it is necessary to think about: how to deal with the risk management of knowledge content in emergencies, how to ensure that users can permanently access the digital resources over time, in the face of the increasingly rich digital resources, college libraries' digital resources are facing a huge challenge in the collection, storage, data and optimisation of the management of the work.

Qiu Xinjie (2019) university libraries are institutions that provide information services to teachers and students, and their business is an important ring in the teaching and research services of university disciplines. In order to improve the service quality and management level of university libraries, it is necessary to form a

management mode of "multiple subjects" from the perspective of each participant in the libraries, so as to comprehensively improve the quality of library management in the consultation and common governance. The article analyses the connotation of multiple subjects in college libraries and the significance of their participation in college library management, and puts forward targeted management strategies based on practical experience. The establishment of a differentiated and diversified mode of multi-subject participation in management is conducive to improving the level of democratic decision-making in management, and ensuring that the level of library management and service is adapted to the requirements of the new era of cultural development in colleges and universities.

Concept about stratety refers to Library management strategies are the systematic planning and adjustment of service concepts, capabilities and operation methods in the context of digitisation and information technology for university libraries to serve students and teachers more effectively. These strategies focus on integration with Internet technologies, innovation of service concepts, transformation of service models, and protection of intellectual property and personal privacy. Library management in the modern environment also includes the introduction of new media and big data technologies, continuous updating of resources and enhanced resource sharing. This aims to optimise the user experience and ensure that libraries are able to meet modern academic and educational needs and maintain their competitiveness in the academic field.

The importance of library management strategy

Library management strategy refers to a series of principles, plans, and methods formulated to achieve the mission, vision, and goals of the library. It involves the management of library resources, provision of user services, optimization of organizational operations, and the ability to respond to challenges and changes. The main roles of library management strategy are as follows: guiding decision-making, improving efficiency, adapting to changes, and promoting innovation. In today's world, the main library management strategies include the following aspects: user-centric strategy, technological innovation strategy, collaborative alliance strategy, and continuous development strategy. The importance of library management strategy cannot be underestimated. It can help libraries effectively plan, organize, and manage resources to ensure optimal utilization of resources. It

guides libraries in providing services that meet user needs and continuously improve service quality. It also provides the ability to respond to changes and challenges, promoting sustainable development and innovation in libraries. Therefore, developing and implementing appropriate library management strategies are crucial for the successful operation of libraries and the provision of high-quality services to users.

Shibanda G.G (2012) primarily discusses the development strategies of the Management Information System (MIS) in the library of Moi University, Kenya. The focus of the study is to enhance the efficiency and service quality of the library through the development and implementation of an information system from a library management perspective. It is believed that developing a management information system suitable for a technological university library is crucial for improving the library's management efficiency and service level. Furthermore, the study emphasizes the importance of system planning and development process, requiring comprehensive requirements analysis and system design to ensure that the system can meet the practical needs of the library. Finally, the study also provides some recommendations and guidelines to assist other similar institutions in effectively planning and implementing the development of library management information systems.

Miao Z (2010) discusses the strategic management issues of digital libraries in the construction process of universities. Through investigation and theoretical analysis, the problems existing in the construction of digital libraries in universities are summarized, and corresponding strategic management strategies are proposed. It is believed that the construction of digital libraries in universities should clarify the development goals and positioning of digital libraries and formulate long-term development plans; strengthen resource integration and sharing to form a mechanism of cooperation and win-win situation; focus on user needs and provide personalized and differentiated services; establish effective knowledge management mechanisms to promote knowledge innovation and dissemination; strengthen organizational management, cultivate professional talents, and improve the operational mechanisms of digital libraries. Through empirical research and case analysis, the effectiveness of these strategies is verified, and corresponding suggestions are proposed, providing important strategic management ideas and

guidance for the development of digital libraries in universities. It has significant reference value for the continuous innovation and development of digital libraries.

Vladimír Típek (2012) focuses on discussing strategies and services in library management. From the perspective of library management, valuable insights and recommendations are provided. The importance of library services is emphasized, and effective strategies for managing these services are proposed. For example, the importance of continuously improving the quality of library services is emphasized, including providing better library facilities, increasing digital resources, and technological support. The role and challenges of libraries in the information age are explored. Strategies to address the information explosion and rapid development are proposed, such as using new technologies to improve information retrieval and processing capabilities, as well as providing personalized services and learning support.

Guo and Li (2019) discuss the management approaches for innovative library borrowing services in the new era. They analyze the new challenges and opportunities faced by library borrowing services in the context of the new era. It is pointed out that with the development of information technology and the changing user demands, libraries need to adopt innovative management strategies to improve the quality and efficiency of borrowing services. Several innovative management strategies for library borrowing services are introduced. These include using intelligent technology to simplify the borrowing process, implementing personalized borrowing services, and establishing collaborative networks across institutions. These strategies aim to provide more convenient, personalized, and efficient borrowing services to meet the diverse needs of users.

Seung-Jin and Kwak et al (2011) conducted a study on the management strategies of national policy information service libraries from the perspective of library management strategy, particularly focusing on the case of the National Sejong Library. The authors introduced the background and importance of national policy information service libraries. They pointed out that national policy information service libraries play a crucial role in collecting, organizing, and disseminating policy information for policy makers and researchers. The management strategies of the National Sejong Library were analyzed. Through surveys and research on the library's operational model, service offerings, and user needs, the researchers proposed some

management strategy recommendations. These recommendations include strengthening the collection and organization of policy information resources, providing diversified service approaches, and adopting advanced information technology.

Vladimír Štípek (2002) believes that the success of library services largely depends on the effectiveness of their management and strategies. The article discusses the basic concepts and principles of library management, including organizational structure, human resource management, and financial management. The process and key elements of library strategic planning, such as goal setting, resource allocation, and marketing, are introduced. Various issues related to library service management and strategy are addressed. The article emphasizes the professional knowledge and skills that library managers need to possess in order to tackle the challenges posed by the constantly changing information environment and user needs. It also explores methods for assessing and improving the quality of library services to ensure effectiveness and satisfaction.

Qing, M (2010) believes that university libraries, as important carriers of knowledge management, emphasize the importance of the quality of knowledge management in improving library service levels and meeting user needs. The author analyzes the existing problems and challenges in knowledge management in current university libraries, such as information resource integration, knowledge sharing and dissemination, and human resource development. The author proposes strategic research to promote the quality of knowledge management in university libraries, including setting strategic goals, adjusting organizational structures, personnel training and motivation, and technological support. The article also explores methods and indicator systems for evaluating the quality of knowledge management, so that university libraries can regularly assess and improve the effectiveness of knowledge management. Through strategic research on the quality of knowledge management in university libraries, this article provides valuable insights and guidance for university libraries.

Xiao Tan and Qiqihar (2018) mainly studied the innovative strategies for service management in university libraries in the new era. The authors analyzed the challenges and issues currently faced by university libraries and proposed corresponding solutions. They pointed out that in the context of the new era,

university libraries need to pay more attention to service innovation in order to adapt to the diversification and personalization of user demands. They proposed a service model based on technological innovation, such as the introduction of technologies like artificial intelligence, big data, and cloud computing, to improve the efficiency and quality of library services. The openness and sharing of university library management were emphasized. It was suggested to strengthen resource sharing and cooperation among libraries, achieve interlibrary loan and resource sharing through collaboration with other university libraries, and provide users with more comprehensive and diverse information resources. This literature takes a perspective of service management in university libraries in the new era and proposes strategies such as service innovation, resource sharing, and intelligent construction. These strategies help university libraries adapt to the demands of the new era and provide better service quality and user experience.

Qin Wa and Zong Li et al (2017) primarily analyzed the management strategies of subject services in university libraries. It is believed that in response to the user demands in different disciplinary fields, libraries should provide specialized subject services, including disciplinary resource acquisition, subject navigation, and disciplinary consultation, to meet the specific needs of users in the process of disciplinary research. The strategy of strengthening cooperation and communication with disciplinary teachers is proposed. The researchers believe that libraries should closely pay attention to the needs of disciplinary teachers and establish a good cooperative relationship with them to jointly promote the development of subject services. For example, disciplinary teachers can be invited to participate in library curriculum design and selection of disciplinary resources. The literature also emphasizes the assessment and improvement of subject services. The researchers suggest that libraries should establish a scientific evaluation mechanism, regularly evaluate the effectiveness of subject services, and make necessary improvements and adjustments based on the evaluation results to improve the quality and efficiency of subject services. These strategies have guiding significance for enhancing the quality of subject services and meeting user demands.

Ying Guang (2015) studied the information management reform strategies of libraries in the aspect of user demands in the new era. It is believed that libraries should place user demands at the core of information management reform. By

investigating and analyzing user demands, a deep understanding of user information acquisition and utilization habits can be obtained in order to better meet their needs. The strategy of integrating and sharing information resources is proposed. The researcher suggests that libraries should strengthen cooperation with other institutions and systems, integrate various information resources, establish a unified information platform, achieve resource sharing, and improve the efficiency and convenience of user information acquisition. Emphasis is placed on the innovation and enhancement of information services. It is recommended that libraries actively introduce new technologies and approaches, such as digital resources and virtual reference consultations, innovate information service models, and enhance user experience and satisfaction. These strategies contribute to better meeting users' information needs, improving service quality, and efficiency.

In summary, the above research materials have conducted in-depth studies on the importance of library management strategies from different perspectives. They have proposed various library management strategy models, including the development strategies of Management Information Systems (MIS) for university libraries, strategic management issues of digital libraries in university construction, as well as strategies and services in library management. The development of a suitable MIS for technical university libraries is crucial for improving management efficiency and service levels. It also emphasizes the importance of comprehensive requirements analysis and system design in the planning and development process. Through empirical research and case analysis, the aforementioned research literature has verified the effectiveness of these strategies and provided corresponding suggestions, offering strategic management ideas and guidance for the development of digital libraries in universities.

Context of Guangxi undergraduate university libraries

Higher education library is the school's literature information centre, an academic institution for teaching and scientific research services, and an important base for school informatisation and socialisation. The information service of university library is different from the general service, it is a professional and academic service. From the service content, service means to service methods, all rely on academic, academic is the key to deepen and enhance the service, through all aspects of

library work. It can be said that the information service (service) is the embodiment of the existence and value of the library, is the purpose of the library, academic research (academic) is to enhance the effective ways and means of service.

The basic features are: 1) higher education is mainly to teach students systematically professional knowledge, teaching content with relative stability, coupled with professional settings and teaching programmes are generally stable, so the reader of the varieties and number of teaching reference books demand is regular, relatively stable. 2) readers with the book has a centralised nature. As teaching according to the teaching programme, syllabus, there is a unified progress, readers with books has a strong concentration: First, the variety of books concentrated in the teaching of the main reference books and journals of the relevant courses; Second, the readers of the teaching reference books of the time to focus on the books. For this reason, the library on the high demand for reference books are generally guaranteed a certain amount of duplicates.3) the collection and organisation of literature management must be adapted to the characteristics of the University. In the collection of literature based on the school's professional settings and scientific research projects, a comprehensive collection of professional literature, focusing on the collection of related disciplines and fringe disciplines of literature, appropriate collection of general literature. The collection should be able to reflect the level of contemporary scientific development. In the organisation and management of the university can be divided into Liberal Arts, Science library and reading room, or according to the professional organisation of the collection and the division of reading room, but also according to the teachers, postgraduates, college students to set up reading rooms or libraries (branch library). In the United States and other Western countries, higher education libraries, taking into account the undergraduate and graduate students, teachers in the literature needs and the use of the difference, often set up a separate undergraduate library, focusing on the collection of those who have a high utilisation rate, more copies of commonly used teaching reference literature. The advantage of doing so is to make different readers streaming, reduce mutual interference, and improve the efficiency of the library. 4) The general library and the departmental (faculty, institute) libraries (data room) must cooperate with each other, and each has its own responsibility. The general library generally collects the basic theoretical works of each speciality. Various

subjects comprehensive, cross, marginal and emerging disciplines of literature and a variety of reference books, and appropriate collection of books and magazines for extracurricular reading. Department (faculty, institute) library (data room) mainly collects professional information, especially the more specialised professional information and a variety of tools.

Related Research

"System Quality" refers to the technical attributes of an information system, such as performance, usability, and reliability, emphasizing the software application's characteristics. The library's digital resources system is highly convenient for staff due to its stable foundation. It ensures a quick response to operations, providing a seamless user experience. Available 24/7 and accessible on mobile devices, it offers flexibility and convenience. The system's user interface is constantly updated, ensuring it remains relevant and efficient, facilitating easy task completion. It excels in accessing various resource types and searching multiple databases. Most importantly, it guarantees the safety of information and data while providing fast download speeds.

Rongguang (2020, p.15-18) highlights how a big data platform can enhance library operations by collecting, analyzing, and regularizing book information, membership data, and circulation data. This system provides reference data for decision-making and enables in-depth analysis of data correlations. Additionally, an IT intelligent monitoring system within the platform allows for effective management and oversight of library terminal equipment, thereby improving operational efficiency and enhancing the user experience. However, the current library service model primarily integrates physical collections and electronic resources in a single-dimensional manner, lacking multi-dimensional data analysis of reader information, collection information, and various service information resources. For new functions such as assisting in government decision-making and revitalizing the entrepreneurial environment, it is crucial to utilize diverse data from libraries, including wireless webpage access times, data traffic, and WeChat terminal usage. Building a big data platform is essential for establishing a robust library system foundation.

Zhou Wenyun et al (2021) address the prevalent issue of data decoupling in the management of book asset inventories in universities. They propose a library

information system with a backend management mode that establishes a mapping relationship between the data of two systems from a technical perspective. This ensures data consistency and promotes smooth collaboration between university libraries and state-owned asset management departments, ultimately improving work efficiency and service quality.

Kang Qi et al (2020.49-54) discuss how the New Media Consortium Horizon Report 2017 (Libraries), released in January 2017 in the United States, identified six major technologies influencing the development of libraries: the Internet of Things, big data, digital technology, artificial intelligence, online authentication, and library service platforms. Notably, the latter five were mentioned for the first time, with a prediction that library service platforms would be widely adopted by 2019. Currently, the domestic library industry and related sectors refer to the "next-generation library service platform" in various forms. With the advancement of information technology and digital resources, the Integrated Library Automation Management System (ILS) has become inadequate for handling the daily operations of libraries, especially for the unified management and retrieval of digital and paper resources. To address this, libraries have actively collaborated with system providers to propose and implement the "Next Generation Library Service Platform," aiming to achieve resource sharing and unified management while meeting users' information needs.

Dou Tianfang and Yang Hui (2020, p.2-7) emphasize that while library functions are continuously evolving, the protection of documentary resources remains the most crucial service function for libraries, both presently and in the foreseeable future. Therefore, it is essential to explore literature resource protection paths that align with the information resource environment and to optimize literature resource protection services. Based on the actual practices of Tsinghua University's library, the authors highlight the importance of maintaining fundamental skills in literature resource protection and enhancing resource management and service through the construction of an integrated resource management platform.

"Information quality" refers to the caliber of information produced by a system, including factors such as relevance, understandability, accuracy, and timeliness. In today's digital landscape, libraries used by staff prioritize prompt updates to ensure their resources remain current. These digital assets are renowned for their accuracy and comprehensiveness, supported by high-quality publications

that provide extensive coverage across various subjects and continuously expand. Fortified by built-in databases, these resources are particularly helpful. Their distinct content ensures that searches yield relevant results. Additionally, the integration of diverse multimedia content, such as videos and audios, enriches the user experience, making research both comprehensive and engaging.

Zhao Yingxing (2018, p.166-167) and Jing Xie, (2016, p.235-246) discuss the role of libraries as central hubs for literature and information resources, aiming to provide users with effective information resources and maximize their satisfaction. Libraries' collections typically comprise two types: paper resources and electronic resources. Traditional libraries have primarily focused on printed paper resources while also considering network information resources. Evaluating information resources involves analyzing and assessing the status, function, and role of the information resource structure system. The insights gained from such evaluations serve as a basis for information institutions to develop policies, control the development of information resources, and establish highly effective information resource systems. This ensures that libraries can provide more effective information services and meet users' information needs. The evaluation standards for library collections focus on the development and utilization of information resources and their ability to satisfy users' requirements.

Ma Xiaolan (2022) highlights that abundant and high-quality basic digital educational resources, along with their effective application, are crucial for the sustainable promotion of education informatization. However, current construction efforts face issues of "shortage" and "waste" of high-quality basic digital educational resources, which hinder the healthy development of education informatization in China. The study focuses on the basic digital education resources of Shaanxi Normal University Publishing House. As a publishing enterprise, to meet readers' needs for multimedia learning and reading across various scenarios, it should review and plan its content resources, strengthen content management, and improve efficiency.

Chen Xu (2020) emphasizes that university institutional knowledge bases can only showcase their service functions and advantages by strictly controlling the quality of academic information resources. This study analyzes the connotation and characteristics of institutional knowledge bases in universities, examines the factors affecting the quality of academic information resources, and explores methods for

designing information quality control standards. The study summarizes the unique features of university institutional knowledge bases and investigates quality control strategies for academic information resources. The goal is to address the issues of scientific management and utilization of academic information resources, thereby enriching and developing the theory of institutional knowledge bases. A phased quality control strategy for academic information resources in university institutional knowledge bases is proposed.

Zhao Yingxing (2018, p.166-167) points out that information resources are fundamental to the development of libraries; without a rich array of information resources, libraries cannot meet people's needs for books and lose their significance. Libraries serve as vital tools for the public to access reading materials. With the advancement of information technology, digital libraries have emerged to make libraries more convenient and to meet cultural needs. The rapid development of information technology has brought significant changes to various industries, including libraries. In this tech-driven environment, library service systems have transformed, with collections increasingly incorporating electronic documents. Supported by networks, library services have expanded beyond the constraints of time and space, allowing people to enjoy convenient reading anytime and anywhere. A major criterion for evaluating these digital advancements is the effective quality control of electronic resources.

"Information service quality" refers to the support provided to users of the system, including help desks, training sessions, and other forms of user assistance. The university library's digital services significantly enhance academic research and efficiency for staff by offering essential training, guidance, and specialized academic support through subject librarianship services. Staff benefit from prompt and precise responses from customer service when navigating these digital resources. The library provides multilingual services and personalized recommendations, emphasizing long-term resource storage, preservation, and the introduction of convenient new features. It also values and effectively addresses feedback from staff, ensuring their opinions are heard. Additionally, tutorials and guides are available to further aid staff in utilizing these resources efficiently.

Genius Xu et al (2023) emphasize the importance of constructing disciplinary information service platforms to aid the development of academic disciplines and

enhance the information service capacity of university libraries. Using literature and network research methods, the study analyzes the theoretical and practical status of university library discipline information service platforms. The findings reveal issues such as insufficient attention to these platforms, lagging demand feedback, incomplete service coverage, and irregular data management. The article uses the discipline information service platform of Chongqing University Library as a case study, showcasing how a targeted platform service system can be constructed. This system enables knowledge services like literature provision, consultation, training, and competitive intelligence, catering to the decision-making needs of scientific research, research management, and development planning. This approach innovates the discipline information service model and improves the quality of discipline services in university libraries.

Zhang Xu Gear (2022) discusses how big data technology can quickly process vast and diverse datasets. College libraries, as central hubs for industry data and information knowledge, are responsible for storing and disseminating various types of scientific knowledge, making them pivotal in the construction of college library information service systems. In the context of big data, a people-oriented approach that focuses on user experience and innovative service models can significantly advance college library information services. The study elaborates on the objectives, service concepts, and service modes of college libraries from a user-centric perspective, proposing innovative service strategies for college libraries in the information age.

Song Jing (2023) emphasizes that information service is the most fundamental service of university libraries. With the accelerated pace of high-quality development in higher education, it has become crucial to comprehensively improve the information resource service capacity of university libraries. Providing comprehensive and timely information resource support for university teachers and students is a top priority. However, there are significant challenges to be addressed. The article provides an overview of college library information resource services and analyzes several strategies for enhancing these services. College library information resources encompass all resources that are excavated and processed according to the practical needs of readers during library construction and operation. This includes paper literature resources and digital resources enabled by information technology. The

primary tasks in constructing college library information resources involve capturing, selecting, and organizing various information resources to ultimately develop a resource system that meets the diverse needs of readers.

Quietly and Yang Fei (2023) highlight that service is both the starting point and the endpoint of library work, with information service being the foundation and goal of information management activities. Given the increasing demand for information among readers, it is essential to study the continuous use of information services by users. By collecting, organizing, and analyzing related literature from the past decade, it becomes evident that existing research on information system adoption has notable gaps. The authors shift the research focus to the behavior of users in the post-adoption stage, specifically the stage of continuous use. They concentrate on the needs and experiences of student users, exploring how their behavior and interactions with information services evolve over time.

"Intention to use" gauges both the user’s intention and actual use of a system. Even a high-quality system won't be successful unless effectively utilized by its intended users. In the university's digital library setting, the frequent use of the retrieval feature highlights its crucial role in supporting academic activities. The library adeptly meets user needs by accurately understanding the staff's demands, leading to enhanced research efficiency. Staff trust in the reliability and accuracy of the information, appreciating the ease and convenience it provides in achieving their objectives. Their enjoyment of the resources often leads to recommendations to peers. The library's alignment with user expectations and its strong emphasis on privacy and peace of mind foster a harmonious relationship between the staff and the library services.

Zhang Xiaojuan (2014) highlights the challenges users face in the vast information landscape, emphasizing the need for search engines to accurately and quickly locate relevant information. Users often input short, ambiguous queries, making it essential for search engines to automatically identify user intent. Query intent recognition, particularly classification under given systems like Broder's (information, navigation, and transaction), is a significant research focus. Most studies explore distinguishing between information and navigation classes, with limited research on automatically classifying all three. The goal is to use query intent classification to optimize search engine performance, an area needing more study.

Zhou Zhicheng (2011, p.116-119) suggests that user-based collaborative filtering is particularly well-suited for university libraries' information recommendation systems due to the comprehensive user backgrounds and diverse resource characteristics. To address the issues of diminished performance caused by the expanding space of digital resources and data sparsity, Zhou proposes a user intent clustering method. This method employs the K-means algorithm to cluster users based on similar intent eigenvalues of resource categories. By doing so, it enhances real-time recommendations and mitigates the impact of data sparsity on information recommendations. Experimental results demonstrate that the collaborative filtering algorithm, when combined with user intent clustering, significantly improves the quality of recommendations.

Cheng Yuhua et al (2016, p.78-83) discuss how the popularization and development of information technology, along with the continuous improvement in users' information literacy, have significantly altered the usage scope and methods of professional literature databases. This shift is driven by changes in users' search intentions when using these databases. It is necessary to establish an organizational system for search intentions that reflects users' search behaviors. This system would act as a bridge between front-end information demand and back-end search behaviors. The article proposes a preliminary classification framework for users' search intentions in literature databases and a model of influencing factors. Using medical literature databases as an empirical field, the study conducts statistical tests based on questionnaire surveys to validate the influence of the model's factors on users' search intentions. The results indicate that the influencing factor model is largely validated, with users' professional roles and seniority being the primary influencing factors. Although the user's environment and usage conditions also impact search intentions, their effect is relatively minor.

Li Aiming (2015, p.68-71) addresses the issues of semantic bias and retrieval topic shift in current query expansion methods by proposing a query expansion method based on ontology and user query intent. This method uses ontology to provide semantic knowledge, resolving semantic bias and ambiguity in the query expansion process. It also incorporates user query intent to perform secondary screening of the initial query expansion concept set, thus avoiding retrieval topic shifts. Experimental results demonstrate that this method not only effectively improves retrieval performance but also prevents the problem of query topic shift.

"User satisfaction" refers to the responses and attitudes of users towards the system, gauging how well it meets their expectations and requirements. The staff expresses high satisfaction with the overall user experience of the digital library. They appreciate its clear and aesthetically pleasing user interface, commend the fast loading speed, and praise the high service quality. The information quality is considered exceptional, and the range of resources-including e-books, papers, and audio-visual materials-is deemed sufficient and effective in enhancing their research efficiency. The library's technical support is viewed as effective, and the proactive approach in frequently updating digital content is well-received. Additionally, the straightforward categorization and tagging system makes it easy to navigate and use.

Liao Changmin (2018, p,100-104) addresses the lack of studies on reader satisfaction surveys in university libraries by using the library of Xihua Normal University as a case study. A questionnaire was designed based on the improved Lib QUAL+ model and targeted student readers of different genders, majors, and academic qualifications. The collected data was statistically analyzed, revealing that the library exceeds the minimum acceptable reader satisfaction score across 25 evaluation indexes, which include service effectiveness, information control, and environmental facilities. However, there remains a gap between these scores and the ideal reader satisfaction score. The study's findings can serve as a reference for the future construction and development of other college libraries.

Song Chengcheng (2018, p.222-225) emphasizes that the establishment and management of college libraries are crucial for showcasing the school's style and improving human resource effectiveness. The paper explores the measures related to implementing fine management in college libraries, highlighting the introduction and necessity of such management practices.

Feng Na (2017, p.141-143) conducted a study on reader satisfaction in college libraries using the fuzzy comprehensive evaluation theory, with the library of Henan University of Science and Technology Kaiyuan Campus as a case study. A questionnaire was designed to collect data on readers' satisfaction with the library. An appropriate index system was then selected to establish a reader satisfaction model based on fuzzy comprehensive evaluation. The results indicated that there is room for improvement in readers' satisfaction, and suggestions for enhancing this satisfaction were provided.

Liao Changmin (2018, p,100-104) also explored reader satisfaction in university libraries, using the library of Xihua Normal University as an example. A questionnaire based on the improved Lib QUAL+ model was designed for student readers of different genders, majors, and academic qualifications. The collected data was statistically analyzed, revealing that the library exceeds the minimum acceptable reader satisfaction score across 25 evaluation indexes, including service effectiveness, information control, and environmental facilities. However, a gap remains between these scores and the ideal reader satisfaction score. The findings from this study can inform the future construction and development of other college libraries.

"Individual net benefit" refers to the measure of benefits realized from using a system, assessing how the information system contributes to the success of individuals, groups, or the entire organization. The digital library primarily facilitates research and offers significant time-saving benefits. Its high-quality resources enhance learning efficiency and assist staff in making better decisions, making the research experience enjoyable. The library's diverse resources ensure holistic development and foster self-directed learning, contributing significantly to career development. Additionally, the library provides helpful courses and tutorials and grants easy access to the latest information, establishing itself as a cornerstone for academic and professional progression.

Zhang Cong and He Jianfeng (2017, p.108-112) constructed a theoretical model based on matching theory and the theory of technology adoption behavior to explore the influence of mobile library users' intention to use. Their study aimed to examine the matching relationship between users' individual innovativeness and the new technology services offered by mobile libraries. The goal was to provide constructive suggestions to promote the adoption of mobile libraries and maximize the value of their investment.

Peng Aidong and Xia Lijun (2018, p.33-43) investigated the impact of micro-services in college libraries from the user's perspective, identifying factors that significantly influence the effectiveness of these services to provide guidance for their construction. The study revealed that users generally rate the effectiveness of micro-services in college libraries highly. However, aspects such as user-perceived micro-content diversity, micro-knowledge content helpfulness, micro-platform stability, and micro-service interactivity were rated slightly lower. The study found that micro-

service quality, micro-content quality, and micro-platform system quality have a direct, positive, and significant impact on user satisfaction, with the degree of impact decreasing in that order. User satisfaction has a direct, positive, and significant impact on user benefits, while micro-content quality, micro-platform system quality, and micro-service quality indirectly affect user benefits through user satisfaction. User satisfaction has the greatest impact on the intention of continued use, followed by micro-service quality, user benefits, micro-content quality, micro-platform stability, and micro-service interactivity.

Xu Fang (2014, p.56-61) uses an experimental research method to analyze the influence of six individual difference factors—educational background, gender, retrieval skills, retrieval experience, browsing skills, and browsing experience—on the evaluation of digital library users' interactive experience. The study finds that different users' individual difference factors have varying influences on the evaluation of digital library interactive experiences. The same individual difference factors also impact various aspects of the interactive experience differently. Moreover, different user individual difference factors affect different measurement indexes of interaction experience evaluation. The study suggests that digital libraries should prioritize specific measurement indexes of interaction experience evaluation when designing their systems to better cater to diverse user needs.

Zhou Wenjie (2017, p.47-56) analyzes the functions of the public library system from a user-centered perspective, focusing on individual information enrichment, participation in educational activities, and the promotion of individual learning. The theory of the personal information world provides a holistic perspective, tools, and evidence for understanding the phenomenon of information inequality, thereby justifying the role of public libraries as institutions promoting information enrichment. In terms of participation in educational activities, public libraries align with the essence of education by providing conditions for lifelong learning, cultural internalization, and opportunities for open education. This analysis highlights the crucial role of public libraries in supporting individual learning and information access.

The rapid development of Internet technology brings great convenience to people's life and work, and at the same time brings challenges to the security of private information. Network information security in colleges and universities is an

important part of the construction and development of safe campuses, directly affecting the safety of students' information and property and the development of scientific research and teaching work of the faculty and staff, and resisting the risk of network information is one of the important components of the development of informatisation work in colleges and universities. On the basis of information technology work in colleges and universities, in-depth analysis of the problems of network information security in colleges and universities under the current stage, and put forward measures to improve the management of network information and protection system related countermeasures for the development of network information security work in colleges and universities to provide a reference. The development of the Internet, big data, cloud platform and other technologies, the construction of network security management is an inevitable choice to achieve high-quality development of colleges and universities. Suggestions such as establishing a security system system, enhancing the awareness of network security among teachers and students, optimising the decision-making structure and evaluation mechanism of personnel, and optimising the data standard system promote the construction of information technology business system integration and data governance system in colleges and universities, enhance the safety of data assets, and promote the further development of intelligent campuses.

Chunsheng Zhang (2023) network security education in colleges and universities should, on the one hand, do a good job of technical education for professionals in cyberspace security and other computer disciplines, and cultivate a team of informatisation talents with the ability of attacking and defending the actual combat, loophole excavation, and engineering development; and on the other hand, we should also scientifically and effectively promote the general education of network security for students who are not majoring in information security, and improve the discernment of the results of information retrieval on the network and information processing ability for students of colleges and universities. The ability to identify the results of network information retrieval and the ability to process information should be improved to help college students establish network security awareness, strengthen the cultivation of the national security concept, ensure the physical and mental health development of students, and fulfil the fundamental task of establishing moral education in colleges and universities. At present, network

security education in colleges and universities generally focuses on network security technical guidance, plan and specification development at the school level, lacks effective curriculum education, practical education, rule of law education, and does not follow the trend of Internet application in carrying out network security education, and does not formulate education programmes according to the characteristics of the development of college students in school in a targeted manner, leading to a disconnect between network security education and the actual situation, and the effect is not good. It is not conducive to the growth and success of university students, and even poses a serious threat to campus security and social stability.

Liu Ling (2023) big data technology refers to the application technology of big data covering all kinds of big data platforms, big data index system, etc. It mainly covers the collection of data, information access, infrastructure, data processing, statistical analysis of the collected information, big data mining, related model prediction, and the results of the presentation of the various aspects. There is a large amount of valuable data in the college network security protection, whether it is for the school or for students is crucial, the use of reliable network data backup technology can be very good to protect the data is not lost, at present, big data technology has been widely used in our country's major colleges and universities, on the one hand, can be used for the important information resources of colleges and universities to create a stable and safe storage environment, which in turn will provide security for the college network. On the other hand, data backup is an important and indispensable part of big data technology, which plays an indispensable role in computer information security of colleges and universities.

Wang Yu et al (2023) under the background of digital transformation of the education industry, the information technology construction and network security guarantee work of colleges and universities are facing new requirements, new scenarios, new challenges and new opportunities. Combined with the characteristics of the industry and the actual work, in order to meet the needs of digital transformation and protect the network security and data security of colleges and universities, we analyse and put forward the key points, difficulties and coping strategies of the network security work of colleges and universities, from the establishment of the network security management system, the implementation of

the information asset filing system, the construction of the network security system of in-depth defence and the system of monitoring and disposal of threats, the formation of the network security emergency response team, and the enhancement of network security education and so on. aspects to elaborate the practical initiatives of network security protection work in colleges and universities.

Wang Xu (2023) gives the idea of constructing the network security professional training system of colleges and universities in the era from the aspects of teacher team cultivation, the creation of teaching platform, the construction of a new mode of educating people, the service of social and economic development and the development of security initiatives, with a view to cultivating a large number of high-quality network security talents for China. There is a large gap in network security talents in China, and there is a serious shortage of high-level skilled network security talents. The current computer network security personnel training system in colleges and universities is not perfect, and there is the phenomenon of heavy theory and light practice, which leads to the weak hands-on ability of graduates and makes it difficult to meet the current social and economic needs of China. The Network Security Law of the People's Republic of China has been in force since 1 June 2017, and Article 74 of the Network Security Law stipulates that anyone who violates the provisions of this law and causes damage to others shall bear civil liability according to law. If violation of the provisions of this law constitutes a violation of public security management, public security management punishment shall be given according to law; if it constitutes a crime, criminal responsibility shall be investigated according to law. The significance of network security is evident. Colleges and universities, in accordance with the standard requirements issued by the state, actively explore the new era of colleges and universities network security professional training system construction method, cultivate high-level network security personnel, and maintain network security order is very important.

Xie Yanlin and Liu Yannan (2022) Currently, college students' network security incidents occur frequently, which seriously threaten the safety and health of college students. Strengthening college students' education on the rule of law and cybersecurity is an important path to ensure the harmony and stability of colleges and universities. At present, college students' education on cybersecurity and the rule of law is still facing the problems of fragmentation of educational content, lack of

practical significance of practical guidance, monotonous educational path, mainly knowledge indoctrination, and insufficient teachers, lack of effective integration of educational power. Based on this, the basic strategy to solve the current problems of college students' education on the rule of law and cybersecurity is to strengthen the top-level design of educational content, innovate educational methods, stimulate students to explore independently, and link social resources to build a multifaceted collaborative education mechanism. Strengthening college students' education on the rule of law and cybersecurity, comprehensively improving college students' knowledge of the rule of law, so that they can comply with the law, abide by the law and use the law in network life, regulate their own network behaviour in accordance with the law, use legal methods to safeguard their legitimate rights and interests and become the backbone of maintaining cybersecurity is particularly urgent, and it has also become an important issue for the security and stability of colleges and universities.

Information Office of the State Council of the People's Republic of China. (2023) China's cyberlegislation has gone through a process of development from scratch, from few to many, from point to point, and from surface to body with the development of the Internet. The first stage, from 1994 to 1999, was the stage of access to the Internet. The number of Internet users and devices steadily increased. Cyber legislation in this phase focused mainly on network infrastructure security, i.e. computer system security and networking security. The second stage, from 2000 to 2011, is the PC Internet stage. With the gradual increase in the number of computers and the gradual reduction of Internet access fees, Internet access became more and more common among users, and network information services developed rapidly. At this stage, network legislation shifted to focus on network service management and content management. The third stage, from 2012 to the present, is the mobile Internet stage. At this stage, network legislation gradually tends to comprehensively cover network information services, information development, network security protection and other comprehensive network governance. During this process, China has enacted and issued more than 140 pieces of legislation in the field of network, basically forming a network legal system with the Constitution as the foundation, laws, administrative regulations, departmental rules and local rules and regulations, local government regulations, traditional legislation as the basis, and network content construction and management, network security and informatisation and other

network-specific legislation as the main thousands of network laws, and providing a solid institutional guarantee for the construction of a strong network country.

Chen Minfeng (2022) the rapid development of information construction in colleges and universities has promoted the construction and upgrading of all kinds of information systems, however, it has also triggered many security incidents in the education system, making the situation of network security problems in colleges and universities more and more serious, and the enhancement of college and university network security protection capacity has become a focus of the construction of information technology in colleges and universities. By analysing the status quo of network security in colleges and universities, some coping strategies for network security risks in colleges and universities are proposed from two perspectives of network security technology and management.

Zhang Yingbin (2022) network ideological work is related to national security and social stability. As the main position of ideological work, colleges and universities have a great responsibility for network security management, not only to prevent and resolve the risk of network public opinion, but also to shoulder the heavy responsibility of raising the flag, educating new people, developing culture, and carrying out the mission. Therefore, it is of great significance whether colleges and universities can build a good network ideological security governance system. Colleges and universities should strengthen the construction of network ideology security governance system from macro level, meso level and micro level.

Zhao Lili (2022) in the Internet era, the ideological security of colleges and universities has been subject to a huge impact, which has a direct influence on college students' own ideological concepts, ways of interaction, and behaviours, and the Internet has gradually become the main place where a variety of values, cultures, and ideologies collide with each other and rub shoulders with each other. Under the background of the network, the security risks of ideological and political education in colleges and universities have proliferated, and these risks are more hidden, more complex, more difficult to control, and are very harmful to students. Therefore, it is necessary for school leaders to strengthen their ideological understanding, improve the regulatory system, regulate network behaviour, improve the construction of talent teams, focus on solving the network ideological problems, and build a solid network ideological security line of defence.

Zhou Aiping (2022) with the wide application of mobile Internet, mobile Internet has become an indispensable part of people's life, study and work, and at the same time, it faces the challenges of network security temptations and threats. Due to factors such as weak awareness of network security, lack of social experience, and poor ability to deal with incidents, college student groups are becoming victims of network security incidents. Therefore, network security education in colleges and universities in the era of mobile Internet is particularly important. We analyse the problems of network security education in colleges and universities by means of questionnaire survey and student interviews, and explore the effective ways of network security education.

Ning Shunzheng (2022) under the background of the wide application of big data technology, from the perspective of colleges and universities, it is necessary to pay enough attention to the development of information construction, establish and improve the campus information platform, and further promote the smooth development of information management. In order to improve the operational efficiency of the information management platform, the relevant managers need to control the information system construction as a whole, establish a unified information standard, and use it as a guide to promote the efficient operation and construction of the information system. In the actual operation process, management units at all levels of colleges and universities should carry out mutual exchange and sharing of information, so as to realise the further improvement of information management in colleges and universities. In order to further promote the effective exchange and communication between the parties, the unified information standards as an important management basis, the relevant departments have promulgated the relevant rules, in order to avoid deviation from the system construction work, the need to introduce the corresponding norms and standards in the construction of information, to achieve the improvement of information technology construction work. At the same time, colleges and universities should also improve the basic administrative information and educational statistical information sufficiently, in order to effectively improve the overall construction level of the information system in colleges and universities.

In summary, network security issues are becoming increasingly prominent among college students at present, seriously threatening the safety and health of college students. It has become an important topic for the security and stability work of colleges and universities to educate college students about the rule of law on network security, improve their rule of law literacy, and enable them to regulate their own behaviours according to the law and use legal methods to safeguard their legitimate rights and interests in the network life. However, the current network security and rule of law education is facing problems such as fragmentation of educational content, homogenisation of educational pathways, and insufficient educational teachers. However, with the development of the Internet, China's network legislation has also experienced a development process from scratch, from few to many, from point to point, from surface to body, forming a perfect network legal system. At the same time, the rapid development of information technology construction in colleges and universities has promoted the upgrading of all kinds of information systems, but it has also brought many security problems. Colleges and universities need to strengthen network security technology and management, and improve network security protection capabilities.

Colleges and universities need to build a good network ideological security governance system, prevent and resolve network public opinion risks, and shoulder the important responsibility of raising the flag, educating new people, developing culture and carrying out missions. Against the background of the widespread application of mobile Internet, college students have become victims of cybersecurity incidents due to their weak awareness of cybersecurity, lack of social experience, and poor ability to deal with incidents, therefore, cybersecurity education is particularly important. In the context of the extensive application of big data technology, colleges and universities need to pay enough attention to information technology construction, establish and improve campus information platforms, enhance the operational efficiency of information systems, realise the improvement of information technology management, and enhance the overall construction level of information systems in colleges and universities.

Chapter 3
Research Methodology

This research focuses on improving the digital resource management strategies for Staff in Guangxi universities. To study the current situation and provide guidelines and evaluation guidelines for improving the digital resource management strategies for Staff in Guangxi universities. The reaesrcher have the follwing procedures.

1. The population/Sample group
2. Research Instruments
3. Data Collection
4. Data analysis

Phase 1: To study the level of digital resource management for staff in Guangxi universities.

Population and sample group

The Population

The population of this research were 20616 Staffs from 10 undergraduate university libraries in Guangxi.

The Sample Group

According to Krejcie and Morgan (1970), the sample group of this research were 379 Staffs from 10 undergraduate universities in Guangxi., By using sample random sampling was also used by drawing from undergraduate universities.

Table 3.1 Lists of university and sample size

No	Application-oriented Universities	Population	The Sample Group
1	Guangxi University	3695	68
2	Guangxi University of Science and Technology	1800	33
3	Guangxi Normal University	4000	74
4	Nanning Normal University	2600	48
5	Guangxi Arts University	1300	24
6	Guangxi Minzu University	2494	46
7	Baise University	1588	29
8	Hechi Academy	1100	20
9	Guangxi University of Finance and Economics	1434	26
10	NanNing University	605	11
	Total	**20616**	**379**

Research Instruments

Questionnaire

The instrument to collect the data for objective one, to study the current situation of digital Resource Management Strategies for Staff in Guangxi Universities was questionnaire. The questionnaire designed based on digital Resource Management in six following aspects: 1) System quality, 2) Information quality, 3) Information servise quality, 4) Intention to use, and 5) User satisfaction, 6) Individual benefit. The questionnaire was provided into two parts:

Part 1: Survey about personal information of respondents, classified by gender and education background.

Part 2: Survey about the current situation of digital resource management strategies for staff in Guangxi Universities. for System quality, Information quality, Information servise quality, Intention to use, and User satisfaction, Individual benefit. The criteria for data interpretation based on five-point Likert's scale, as follows:

5 express the level of digital resource management strategies for staff at the highest level.

4 express the level of digital resource management strategies for staff at high level.

3 express the level of digital resource management strategies for staff at medium level.

2 express the level of digital resource management strategies for staff at low level.

1 express the level of digital resource management strategies for staff at the low levelest.

The data interpretation for average value is based on Rensis Likert (1932). The data interpretation is as follows:

4.50 – 5.00 refers to the highest level

3.50 – 4.49 refers to high level

2.50 – 3.49 refers to medium level

1.50 – 2.49 refers to low level

1.00 – 1.49 refers to the lowest level

Constructing a questionnaire process

The construction process of questionnaire was as follows:

Step1: Reviewing and analyzing documents, concepts, theories, and research related to digital resource management strategies

Step2: Constructing the questionnaire about the current situation of digital resource management strategies for staff in Guangxi Universities. Then sending the questionnaire outline of questionnaire to the thesis advisors to review and revise the contents according to the suggestions.

Step3: The index of objective congruence (IOC) of the questionnaire was examined by three experts.

Step4: Revise the questionnaire based on the experts' suggestions.

Step5: The questionnaire was distributed to 30 staffs in undergraduate universities in Guangxi for try-out. The reliability of the questionnaire was obtained by Conbach's Alpha Coefficient.

Step6: The questionnaire was applied to 379 staffs in undergraduate universities in Guangxi.

Data Collection

The data collection for objective 1: to study the current situation of digital resource management for staff in Guangxi universities, as following procedured:

Step 1: The researcher requested requirement letter form the graduate school, Bansomdejchaopraya Rajabhat University for requiring to collect the data from 379 staffs in undergraduate universities in Guangxi.

Step 2: The researcher distributed the questionnaire to 379 staffs. A total of 379 questionnaires.

Data Analysis

The data analysis in this research, the researcher analyze the data by package program, as follows:

Step1: The personal information of the respondents, classified by gender and education background, was analyzed by frequency and percentage.

Step2: The current situation of digital resource management strategies for staff in Guangxi Universities in six following aspects: 1) System quality, 2) Information quality, 3) Information servise quality, 4) Intention to use, 5) User satisfaction, 6) Individual benefit was analyzed by mean value and standard deviation.

Phase 2: To formulate strategies for digital resource management for staff in Guangxi universities

Key informations

The focus group interviewees

The focus group interviewee in this research was 10 staff from Guangxi universities. The qualifications of interviewee are as follows: 1) At least 5 years as a digital management for staff in Guangxi universities, 2) were familiar with the operation mode of university library management, and have a deeper understanding of digital resource management, 3) must be willing to participate in focus group interviews, 4) must be willing to review the transcripts of their interviews for validation.

Research Instruments

SWOT analysis

The instrument to collect the data for objective two, to formulate the digital resource management strategies for Staff in Guangxi universities. The designed based on digital resource management strategies for Staff in Guangxi universities and SWOT analysis on digital resource management in following aspects: 1) System quality, 2) Information quality, 3) Information servise quality, 4) Intention to use, 5) User satisfaction, 6) Individual benefit, The focus group interview provides.

This SWOT analyzes include the strengths, weaknesses, opportunities and threats of the digital resource management strategies for Staff in Guangxi universities. SWOT analysis designed based on he digital resource management in following 6 aspects: 1) System quality, 2) Information quality, 3) Information servise quality, 4) Intention to use, 5) User satisfaction, 6) Individual benefit.

Constructing SWOT analysis process

The construction process of the SWOT analysis is as follow:

Step 1: The strengths, weaknesses, opportunities, and threats of digital resource management strategies for Staff in Guangxi universities are listed.

Step 2: Based on strengths, weaknesses, opportunities, threats of digital resource management strategies for Staff in Guangxi universities, strategy are analyzed.

Step 3: The analyzed strategy are sorted out by variables to form a general strategy.

Structured focus group Interview

According to the research analysis of related literature and the statistical results of questionnaire data, the interview outline of "digital resource management for staffs in universities in Guangxi" is prepared around the contents of 6 variables that affect digital resource management for staff in Guangxi universities, and structured interviews are conducted with staffs who are involved in the digital resource management in different universities, and the interviewees are required to follow the interview outline, respectively, from 6 aspects ,1) System quality, 2) Information quality, 3) Information servise quality, 4) Intention to use, and 5) User satisfaction, 6) Individual benefit. The structured focus group interview is divided into two parts:

Part 1: the personal information of focus group interviewees, classified by interviewee, interviewer, education background, work experience, focus group interview time, and focus group interview date.

Part 2: the questions about suggestions for developing the current situation of digital resource management for staffs on 6 aspects:1) System quality, 2) Information quality, 3) Information servise quality, 4) Intention to use, and 5) User satisfaction, 6) Individual benefit .According to the interview outline, the interviewees were required to describe the current situation of the digital resource management for staffs in universities in Guangxi and suggest management strategies. The researcher composes and analyzes the interview contents, combines the existing research results, and proposes the management strategies for digital resource management for staffs in universities in Guangxi.

Constructing a structured focus group interview process

The construction process of the structured focus group interview is as follows:

Step 1: Reviewing and analyzing documents, concepts, theories, and research related to digital resource management for staffs.

Step 2: Construct the structured interview about suggestions for developing the current situation of digital resource management for staffs based on 6 aspects: 1) System quality, 2) Information quality, 3) Information servise quality, 4) Intention to use, and 5) User satisfaction, 6) Individual benefit .Then send the outline of the structured focus group interview to the thesis advisors to review and revise the contents according to the suggestions.

Data Collection

The data collection for objective 2: to provide the strategies of digital resource management for staff in Guangxi universities.

Step 1: Analyze the development strategies for promoting digital resource management strategies for staff in Guangxi Universities.

Step 2: Set up the qualifications of participants in focus group interviews, including administrators of digital resource management in Guangxi Universities.

Step 3: To select respondents who meet the qualifications of item (2) at the same time, the researcher invites respondents who volunteer to participate in the focus group Interview.

Step 4: Conduct focus group interviews according to the steps.

Data Analysis

The focus group interview about about digital resource management strategies for staff in Guangxi Universities was analyzed by content analysis.

Phase 3: To evaluate the suitability and feasibility of strategies for the digital resource management staff in Guangxi universities.

Key informations

Expert group

The experts for evaluation of the Suitability and feasibility of strategies for improving the digital resource management strategies for staff were Library Staffs in Universities in Guangxi. The qualifications of the experts are as follows: 1) Staffs who have been involved digitaln resource management work for 10 years or more, 2) have extensive experience in Digital resource management in university libraries, 3) academic title is associate professor or above.

Research Instruments

Evaluation form

The instrument to collect the data for objective three, to evaluate the suitability and feasibility of strategies for the digital resource management staff in Guangxi universities. The evaluation form designed based on strategies for the digital resource management staff in Guangxi universities in 6 aspects:1) System quality, 2) Information quality, 3) Information servise quality, 4) Intention to use, and 5) User satisfaction, 6) Individual benefit. The evaluation form provide into two parts:

Part 1: the personal information of interviewees, classified by work position, work experience, educational background, and academic title.

Part 2: The evaluation form about the strategies for the digital resource management staff in Guangxi universities. The criteria for data interpretation based on a five-point Likert's scale, as follows:

5 refers to the suitability and feasibility of the model at the highest level

4 refers to the suitability and feasibility of the model at a high level

3 refers to the suitability and feasibility of the model at a medium level

2 refers to the suitability and feasibility of the model at a low level

1 refers to the suitability and feasibility of the model at the lowest level

The data interpretation for average value is based on Rensis Likert (1932). The data interpretation is as follows:

4.50 – 5.00 refers to the highest level

3.50 – 4.49 refers to high level

2.50 – 3.49 refers to medium level

1.50 – 2.49 refers to low level

1.00 – 1.49 refers to the lowest level

Constructing an evaluation form process

The construction process of the evaluation form is as follows:

Step 1: Construct the evaluation form about strategies for the digital resource management staff in Guangxi universities.

Step 2: The evaluation form was applied to 15 high-level administrators in universities in Guangxi.

Data Collection

The data collection for objective 3: to evaluate the strategies for the digital resource management staff in Guangxi universities. as following procedure:

Step 1: The researcher requested a requirement letter from the graduate school, Bansomdejchaopraya Rajabhat University for requiring to invite the expert to evaluate the strategies.

Step 2: The researcher distributed the evaluation form to high-level administrators. A total of 15 evaluation forms.

Data Analysis

The data analysis in this research, the researcher analyzes the data by package program, as follows: The evaluation of the adaptability and feasibility of the strategies for the digital resource management staff in Guangxi universities is analyzed by Mean and standard deviation.

Chapter 4
Results of Analysis

The research in digital resource management for staff in Guangxi universities. The objectives of this research were 1) To study the current situation of digital resource management for staff in Guangxi universities, 2) To provide the strategies of digital resource management for staff in Guangxi universities, and 3) To evaluate the strategies of digital resource management for staff in Guangxi universities. The data analysis result can be presented as follows:

1. Symbol and Abbreviations
2. Presentation of data analysis
3. Results of data analysis

The details are as follows.

Symbol and Abbreviations

N	population
n	refers to sample group
$\overline{X}$	refers to average value
D.	refers to standard deviation

Presentation of data analysis

Part 1: The analysis result about personal information of respondents, classified by gender and education background. Presented the data in the form of frequency and percentage.

Part 2: The analysis result about the current situation of digital resource management for staff in Guangxi universities.

1. The questionnaire of digital resource management for staff in Guangxi universities is analyzed in the form of average value and standard deviation.

2. Presenting data SWOT analysis.

Part 3: The analysis result about the interview contents about for improving the digital resource management for staff in Guangxi universities.

Part 4: The analysis result about the evaluation of the Suitability and feasibility of digital resource management for staff in Guangxi universities. Presented the data in the form of average value and standard deviation.

Results of data analysis

The researcher analyzed the data in 3 parts as follows:

Part 1: The analysis result about personal information of respondents, classified by gender and education background. Presented the data in the form of frequency and percentage.

Table 4.1 Number and percentage of respondents

(n = 379)

	Personal Information	Frequency	Percentage
gender	male	227	59.89
	Female	152	40.11
	Total	**379**	**100**
education background	Bachelor degree	38	10.03
	Master's degree	227	59.89
	Doctoral degree	114	30.08
	Total	**379**	**100**

According to Table 4.1, showed that the majority respondents were 227 males, accounting for 59.89%, and 152 females, accounting for 40.11%. The education background of respondents was mainly master’s degree for 227 people, accounting for 59.89%, followed by doctor’s degree, and bachelor’s degree was the lowest level for 38 people, accounting for 10.3%.

Part 2: The analysis result about the current situation of digital resource management for staff in Guangxi universities. Presented the data in the form of average value and standard deviation

Table 4.2 The average value and standard deviation of the current situation of digital resource managementin six aspects.

(n = 379)

	Variable	$\bar{X}$	S.D.	level	order
1	system quality	3.57	0.81	High	1
2	information quality	3.56	0.81	High	2
3	information servise quality	3.55	0.81	High	4
4	intention to use	3.54	0.83	High	5
5	user satisfaction	3.53	0.80	High	6
6	individual benefit	3.55	0.83	High	3
	Total	**3.55**	**0.82**	**High**	

According to table 4.2, found that the current situation of digital resource management in six aspects was at high level ($\bar{X}$=3.55). Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was system quality ($\bar{X}$=3.57), followed by information quality ($\bar{X}$=3.56), and user satisfaction was the lowest level ($\bar{X}$=3.53).

Table 4.3 The average value and standard deviation of the current situation of digital resource management for staff in information quality

(n = 379)

	System Quality	$\bar{X}$	S.D.	level	order
1	Staff used the operation of the library's digital resources system platform convenient.	3.52	1.03	high	9
2	Staff uses the system stability of library digital resources to ensure continuous access to digital resources.	3.59	1.01	high	4
3	Staff responds quickly to operations using the library's digital resource system.	3.60	1.01	high	2
4	Staff have 24-hour access to library digital resources.	3.58	0.98	high	6
5	Staff can use mobile devices compatibility to access the library digital resource system platform	3.51	1.03	high	11
6	Staff can update and optimize the user interface of the librry's digital resources in real time.	3.51	1.01	high	10
7	Staff can use the user interface of the library's digital resources efficiency and easy task completion.	3.57	1.01	high	8
8	Staff can search various types of digital resources by using the library digital resource system.	3.59	0.99	high	3
9	Staff can search across multiple databases at the same time by using the library digital resource system.	3.59	1.03	high	5
10	Saffs'information and data safety in library digital resource system.	3.58	1.01	high	7
11	Staff uses the library digital resource system to download speed.	3.61	1.01	high	1
	Total	**3.57**	**1.01**	**high**	

According to table 4.3, found that the current situation of digital resource management for staff in System quality was at high level ($\bar{X}$=3.57). Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was Staff uses the library digital resource system to download speed ($\bar{X}$=3.61), followed by Staff responds quickly to operations using the library's digital resource system ($\bar{X}$=3.60), and Staff can use mobile devices compatibility to access the library digital resource system platform was the lowest level ($\bar{X}$=3.51).

Table 4.4 The average value and standard deviation of the current situation of digital resource management for staff in information quality

(n = 379)

	Information Quality	$\bar{X}$	S.D.	level	order
1	Staff using information on library digital resources is updated promptly.	3.55	0.98	high	8
2	Staff using information on library digital resources is accurate.	3.58	0.97	high	4
3	Staff using information on library digital resources is comprehensive	3.59	1.07	high	3
4	Staff using the papers and journals in the digital resources of the library are of high quality.	3.49	0.98	high	10
5	Staff using the subject materials covered in the digital resources of the library are extensive Coverage.	3.55	0.98	high	8
6	Staff using utilized in the digital resources of the library continuously update and expand.	3.59	1.01	high	2
7	Staff using the digital resources of the library have their own built-in databases.	3.60	1.01	high	1
8	Staff using the digital resources of the library utilized are helpful.	3.54	0.98	high	9

Table 4.4 (Continued)

(n = 379)

	Information Quality	$\bar{X}$	S.D.	level	order
9	Staff using the content of the digital resources in the library is highly distinguishable from other resources.	3.58	1.00	high	6
10	Staff using the search results from the library's digital resources highly correlate with the required digital resources.	3.56	1.04	high	7
11	Staff accessing the digital resources of the library encompass a wide array of multimedia content such as videos and audios	3.58	0.97	high	5
	Total	**3.56**	**1**	**high**	

According to table 4.4, found that the current situation of digital resource management for staff in information quality was at high level ($\bar{X}$=3.56). Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was Staff using the digital resources of the library have their own built-in databases. ($\bar{X}$=3.60), followed by Staff using information on library digital resources is comprehensive ($\bar{X}$=3.59), and Staff using utilized in the digital resources of the library continuously update and expand ($\bar{X}$=3.59).and Staff using the papers and journals in the digital resources of the library are of high quality was the lowest level ($\bar{X}$=3.49).

Table 4.5 The average value and standard deviation of the current situation of digital resource management for staff in information servise quality

(n = 379)

	Information Servise Quality	$\bar{X}$	S.D.	level	order
1	Staff enhances the academic research and efficiency by using he university library's information service.	3.49	0.97	medium	11
2	Staff training and guidance through the library's information service offers.	3.50	1.01	high	10
3	Staff using the library's digital resources canget the receives swift responses from customer service.	3.57	1.03	high	5
4	Staff using the library's digital resources encounter difficulties can be addressed with precision.	3.58	1.03	high	3
5	Staff using the library's digital resources can get subject librarianship services available.	3.60	0.98	high	1
6	Staff can get specialized academic guidance from Subject librarians.	3.53	1.01	high	9
7	Staff can get personalized ecommendation services from the digital library.	3.57	1.01	high	4
8	Staff can get multilingual service functionalities from the digital library.	3.59	1.03	high	2
9	Staff's opinions and suggestions on the quality of information services are effectively addressed and feedback is provided.	3.50	1.01	high	10
10	Staff can get long-term resource storage and preservation provides from the library's digital information service.	3.53	0.96	high	8
11	Staff can get constantly updated with convenient new features from library digital information service.	3.55	1.02	high	6

Table 4.5 (Continued)

(n = 379)

	Information Servise Quality	$\bar{X}$	S.D.	level	order
12	Staff can get usage offers tutorials and guides from library digital information service.	3.55	1.03	high	7
	Total	**3.55**	**1.01**	**high**	

According to table 4.5, found that the current situation of digital resource management for staff in information servise quality was at high level ($\bar{X}$=3.55). Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was Staff using the library's digital resources can get subject librarianship services available. ($\bar{X}$=3.60), followed by Staff can get multilingual service functionalities from the digital library. ($\bar{X}$= 3.59), and Staff enhances the academic research and efficiency by using he university library's information service. was the lowest level ($\bar{X}$= 3.49).

Table 4.6 The average value and standard deviation of the current situation of digital resource management for staff in intention to use

(n = 379)

	Intention to use	$\bar{X}$	S.D.	level	order
1	Staff frequently use the digital library's information retrieval feature.	3.52	1.03	high	9
2	Staff's meets needs can be satisfied from the digital library's information retrieval system.	3.54	0.98	high	4
3	staff's requirements can be accurately understand by the digital library's information service.	3.53	1.01	high	8
4	Staff's learning and research efficiency can be enhanced by the digital library.	3.54	1.03	high	5
5	Staff using the information retrieval system of the digital library is reliable and accurate.	3.55	1.02	high	3

Table 4.6 (Continued)

(n = 379)

	Intention to use	$\bar{X}$	S.D.	level	order
6	Staff can achieve their learning and research goals more easily and conveniently using the digital library.	3.53	1.00	high	7
7	Staff enjoy using the library's digital resources	3.58	1.01	high	1
8	Staff would recommend the digital library to others.	3.55	1.02	high	3
9	Staff's expectations and requirements can be fulfilled aligns with by the digital library system.	3.57	1.05	high	2
10	Staff using with peace of mind due to the digital library's information service prioritizes privacy.	3.54	1.05	high	6
	Total	**3.54**	**1.02**	**high**	

According to table 4.6, found that the current situation of digital resource management for staff in intention to use was at high level ($\bar{X}$=3.54).Considering the results of this research aspects ranged from the highest to lowest level were as follow: Staff enjoy using the library's digital resources ($\bar{X}$=3.58), followed by Staff's expectations and requirements can be fulfilled aligns with by the digital library system. ($\bar{X}$=3.57), and Staff frequently use the digital library's information retrieval feature was the lowest level ($\bar{X}$=3.52).

Table 4.7 The average value and standard deviation of the current situation of digital resource management for staff in User satisfaction

(n = 379)

	User satisfaction	$\bar{X}$	S.D.	level	order
1	Staff is satisfied with the overall user experience of the digital library	3.51	1.05	high	7
2	Staff finds the user interface of the digital library clear and aesthetically pleasing	3.59	0.94	high	2
3	Staff is satisfied with the loading speed of the digital library	3.49	1.03	medium	10
4	Staff is satisfied with the service quality of the digital library.	3.58	0.97	high	3
5	Staff believes the information quality in the digital library is high.	3.62	0.97	high	1
6	Staff finds the resources provided by the digital library (e-books, papers, audio-visual materials, etc.) to be sufficient	3.52	1.00	high	5
7	Staff believes the digital library makes research and work more efficient.	3.5	1.00	medium	8
8	Staff thinks the technical support from the digital library is effective	3.51	0.99	high	6
9	Staff needs based on the digital library frequently updates digital resources	3.57	1.0	high	4
10	Staff finds the categorization and tagging of the digital library easy to understand and use	3.49	0.99	medium	9
	Total	**3.53**	**0.99**	**high**	

According to table 4.7, found that the current situation of digital resource management for staff in User satisfaction was at high level ($\bar{X}$=3.53). Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was Staff believes the information quality in the digital library is high. ($\bar{X}$=3.62), followed by Staff finds the user interface of the digital library clear and aesthetically pleasing ($\bar{X}$=3.59), and Staff believes the digital library makes research and work more efficient was the lowest level ($\bar{X}$=3.5).

Table 4.8 The average value and standard deviation of the current situation of digital resource management for staff in individual benefit

(n = 379)

	Individual benefit	$\bar{X}$	S.D.	level	order
1	Staff believe the digital library facilitates their academic research.	3.59	0.99	high	2
2	Staff think the digital library saves time in searching for information.	3.51	1.04	high	8
3	Staff consider the quality of resources provided by the digital library improves their learning efficiency.	3.53	1.00	high	7
4	Staff believe the information provided by the digital library enables better decision-making.	3.59	1.00	high	3
5	Staff feel the digital library makes the research and work process more enjoyable.	3.55	1.00	high	5
6	Staff believe the resource diversity of the digital library contributes to holistic development	3.55	1.07	high	6
7	Staff believe the digital library promotes self-directed learning.	3.47	1.05	medium	10
8	Staff think the digital library contributes to their career development.	3.49	1.00	medium	9
9	Staff believe courses or tutorials provided by the digital library are very helpful.	3.62	1.00	high	1
10	Staff believe the digital library allows easier access to the latest information in their industry or academic field.	3.58	1.00	high	4
	Total	**3.55**	**1.02**	**high**	

According to table 4.8, found that the current situation of digital resource management for staff in individual benefit was at high level ($\bar{X}$=3.55). Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was Staff believe courses or tutorials provided by the digital

library are very helpful. ($\overline{X}$=3.62), followed by Staff believe the digital library facilitates their academic research ($\overline{X}$=3.59), and Staff believe the digital library promotes self-directed learning was the lowest level ($\overline{X}$=3.47).

2. Present Data SWOT analysis.

Table 4.9 It is organized below based on the questionnaire data

	Helpful in reaching goals	**Harmful to achieving goals**
	Advantageous	**Weaknesses**
inside	Optimizing system performance and upgrading servers can improve the operational efficiency and stability of the system, thus providing a better user experience. Improving user experience and interface design can increase user satisfaction and loyalty to the system, and improve system utilization and user stickiness. Optimizing the library's digital resource management and platform functions can increase the utilization and value of digital resources and provide better support for teaching and research. Standardization of information quality and data audit mechanism help to improve the accuracy and completeness of information. Quality control standards provide clear guidance for information quality.	As the number of users grows and digital resources increase, the system may experience performance bottlenecks that result in slower response times or failures. This will affect the user experience and may lead to loss of users or reduced frequency of use. Inadequate platform functionality may affect the management and utilization of digital resources. There is a lack of standards for information quality, and self-built databases require significant investment and technical support. Lack of timely service response, instability of new technologies, and inaccuracy of multilingual services may affect user experience. Adjustment of management strategies and service processes requires certain costs and time. Intellectual property issues may lead to legal risks.

Table 4.9 (Continue)

	Helpful in reaching goals	Harmful to achieving goals
	Advantageous	**Weaknesses**
nside	Updating digital resources and focusing on user needs and academic dynamics can further improve service quality. Technological innovation and upgrading can bring new functions and services. Using advanced information technology to improve the utilization of digital resources can optimize teaching, research and work processes, thus improving overall efficiency and quality. Better services are provided by updating resources and improving search functions. Effective promotion and incentives can increase the utilization and satisfaction of digital resources. User feedback indicates the quality and effectiveness of services and helps to enhance user satisfaction and loyalty. Regular user training and education are organized to improve the efficiency of users and the effectiveness of resource utilization. Provide customized services to meet the special needs of different user groups and satisfy the individual needs of users.	

Table 4.9 (Continue)

	Helpful in reaching goals	Harmful to achieving goals
	Opportunity	**Threat**
utside	With the continuous development and innovation of technology, the introduction of new technologies and tools can optimize system performance and user experience and improve system competitiveness. Integration of various digital resources can increase utilization and value, and cooperation with other universities or institutions to share resources can increase the resource richness and value of the system. Continuous improvement of review mechanisms and standards improves information quality, and cooperation with academic institutions and authors expands resources. Improve services through user research and feedback, and enhance the quality of disciplinary services to meet demands. Use technology to improve service quality and provide personalized services and training courses to enhance user satisfaction and loyalty. Collaborate with partners to expand promotion channels and user groups to meet the growing demand for digital resources and provide more opportunities for services.	With the changing needs of users, systems need to be continuously updated and optimized to meet their expectations. However, technological developments may pose security risks, and issues such as security breaches and data leakage need to be addressed in a timely manner. Maintenance and updating of information quality is crucial to avoid inaccurate information output. At the same time, continuous attention is paid to user needs and academic developments in order to maintain the consistency of resources with user needs. Technology updates may raise compatibility issues that need to be handled with care. Constant attention is paid to user experience and service quality to avoid user turnover. Providing multi-language services helps to expand the impact of services. Flexibility is needed to maintain a competitive edge in the face of challenges posed by technological updates and market changes. Budgetary constraints may affect the purchase and maintenance of digital resources, which need to be carefully managed to ensure service quality.

From the above questionnaire SWOT data, simply and simply organize the following:

1. Strengths

1) System performance optimisation and upgrading: Continuous system and network architecture optimisation, load balancing and caching strategies can improve system stability and response speed, thus enhancing user experience.

2) User Experience and Interface Improvement: Enhance user friendliness and user satisfaction by providing an intuitive and easy-to-use interface and platform.

3) Library digital resource management and platform optimisation: Effective digital resource management and system performance monitoring ensure resource availability and access speed, and improve service quality.

4) Information Quality and Data Audit: High-standard data cleansing and standardisation procedures ensure information quality and enhance data usage efficiency and reliability.

5) Update and Expansion of Library Digital Resources: Continuously update and expand library resources to meet user needs and enhance the attractiveness and competitiveness of library services.

6) User experience and service enhancement: Focus on user experience and service quality to enhance user satisfaction through accurate and efficient search services and rapid response to user feedback.

7) Library discipline services: the development of discipline expert teams and customised exclusive resource recommendation services can deepen the combination of library and discipline teaching and provide more accurate and personalised services.

8) Multi-language service: the enhanced multi-language service capability using technical tools such as machine translation can meet the needs of users from different backgrounds and enhance the accessibility and inclusiveness of services.

9) Importance and wide application of digital resources: The importance of digital resources in teaching, research and work reflects their contribution to improving work efficiency and research quality.

10) User experience and satisfaction: User satisfaction can be continuously improved by actively collecting user feedback and adjusting management strategies and service processes.

11) User training and education: Regular user training and faculty workshops are conducted to improve users' efficiency and skills in utilising digital resources.

12) Quality and quantity of digital resources: Providing rich, diverse and high-quality digital resources can meet a wide range of user needs and enhance user satisfaction.

13) Service process optimisation: Optimised user interface and clear and concise operation guide reduce the difficulty of use and significantly enhance user experience.

2. Weaknesses

1) Cybersecurity risk: As technology develops, cybersecurity threats evolve and may pose a threat to the security of user data and the stability of the system.

2) Improvement and optimisation of self-built databases: Maintenance and upgrading of self-built databases require professional technical support and may face resource and technical talent constraints.

3) User research and feedback: the systematic user research and feedback mechanism is imperfect, making it difficult to better understand library users' needs.

4) Resource management and service optimisation: digital resource management measures are not sound, and it is difficult to update resource services and resources to meet user needs.

5) User interface design and optimisation: Continuous user interface design testing and improvement requires constant resource input and user feedback, and there are implementation challenges.

6) Data analysis and decision support: requires expertise and technical inputs, which may be a challenge for some organisations.

7) Training and Skills Enhancement: Training participation and the effectiveness of training may be limited by the level of user engagement and the usefulness of the training content.

3. Opportunites

1) Advanced Search Functions and Academic Research: Developing advanced search functions, such as semantic search and Linked Data search, can improve search accuracy and meet the needs of academic research.

2) Digital Resource Acquisition and Co-operation: Establishing co-operation with content providers can enrich the library's digital resource library and improve the attractiveness and competitiveness of the library.

3) Technological dimension and innovation: Technological innovation provides opportunities to improve services and optimise system performance, such as enhancing efficiency and quality through automation tools and metadata management tools.

4) Internationalisation cooperation and services: through cooperation with international universities and institutions, quality digital resources can be shared, the internationalisation of library services can be enhanced, and users can be provided with a wider range of learning and research resources.

5) User Demand and Satisfaction Enhancement: Through research and feedback mechanisms to understand and satisfy user needs, the library can enhance user satisfaction and loyalty.

6) Promotion and Incentive Strategies: Through various promotion activities and incentive strategies, libraries can increase the usage of digital resources and enhance users' digital literacy.

7) Academic Seminars and Resource Sharing: Organising academic seminars and establishing resource sharing platforms provide users with opportunities to display research results and exchange academic ideas.

8) Optimisation of information retrieval and service quality: user satisfaction and loyalty can be enhanced by optimising the information retrieval process and improving service quality.

9) Academic research and communication: Specialised research data management courses and research support services, as well as links with partners inside and outside the university, provide a good platform for academic communication and resource sharing.

10) Specific user group needs: the strategy of customising services for different user groups provides opportunities to meet diversified needs and helps to enhance user satisfaction and loyalty.

4. Threats

1) Network security and protection: Strengthening network security measures and data confidentiality can enhance user trust and provide users with a secure digital environment.

2) system performance remaining stability: with the increase in data volume, system stability and security has become a major challenge, the stability of the system and security vulnerabilities may cause damage to the reputation of the organisation and user trust.

3) technical aspects and innovation: the rapid iteration of technological innovation and development makes the library to the challenges of continuous updating and learning.

4) Technical Support and Infrastructure: Rapid technological development may lead to rapid obsolescence of existing infrastructure and resources, putting pressure on libraries to update and maintain them.

5) Teaching and Research Support: There is no measure of accuracy, authority and richness of provision to accurately and effectively support teaching and research activities.

6) User services and experience: changing user needs require services and resources to be able to adapt flexibly, which may pose a challenge to resource management and service delivery.

Table 4.10 SWOT after finishing organization

S	W
System quality	**System quality**
1. System Performance Optimisation and Upgrades: Continuous system and network architecture optimisation, load balancing and caching strategies can improve system stability and responsiveness, thus enhancing user experience. 2. User Experience and Interface Improvement: Enhance user-friendliness and increase user satisfaction by providing an intuitive and easy-to-use interface and platform.	Digital Resource Acquisition and Collaboration: over-reliance on establishing partnerships with content providers can enrich the library's digital resource base with self-built databases and improve the library's attractiveness and competitiveness.
Information quality	**Information quality**
Information Quality and Data Audit: High standards of data cleansing and standardisation procedures ensure information quality and improve the efficiency and reliability of data use. Updating and Expansion of Library Digital Resources: Continuous updating and expansion of library resources to meet user needs and enhance the attractiveness and competitiveness of library services.	Improvement and optimisation of self-built databases: Maintenance and upgrading of self-built databases requires professional technical support and may face resource and technical talent constraints.

Table 4.10 (Continued)

S	W
Information servise quality	**Information servise quality**
1. Library subject services: the develop pment of a team of subject specialists and the customisation of exclusive resource recommendation services can deepen the integration of libraries with subject teaching and provide more precise and personalised services. 2. Multilingual services: Enhanced multilingual service capabilities using technological tools such as machine translation can meet the needs of users from different backgrounds and improve the accessibility and inclusiveness of services.	1.User research and feedback: Systematic user research and feedback mechanisms are not well developed, making it difficult to better understand the needs of library users.
Intention to use	**Intention to use**
1. Importance and utilisation of digital resources: the importance of digital resources in teaching, research and work reflects their contribution to improving the efficiency of work and the quality of research.	1. Resource management and service optimisation: digital resource management measures are inadequate, and the updating of resource services and resources is difficult to meet user needs.
User satisfaction	**User satisfaction**
1. User training and education: Regular user training and teacher seminars are conducted to improve users' efficiency and skills in utilising digital resources. 2.Optimisation of information retrieval and service quality: user satisfaction and loyalty can be enhanced by optimising the information retrieval process and improving service quality.	1.User Interface Design and Optimisation: continuous user interface design testing and improvement requires constant resource investment and user feedback, with execution challenges.

Table 4.10 (Continued)

S	W
Individual benefit	**Individual benefit**
1. Quality and quantity of digital resources: the provision of rich, diverse and high-quality digital resources meets a wide range of user needs and enhances user satisfaction. 2. Optimisation of service flow: Optimised user interface and clear and concise operation guidelines reduce the difficulty of use and significantly enhance user experience.	1.Training and skills upgrading: Participation in training and the effectiveness of training may be limited by the level of user involvement and the usefulness of the training content.
O	**T**
System quality	**System quality**
1. Advanced Search Functions and Academic Research: the development of advanced search functions, such as semantic search and Linked Data search, can improve search accuracy and meet the needs of academic research. **Information quality** 1.Technological dimensions and innovation: technological innovations provide opportunities to improve services and optimise system performance, such as through automation tools and metadata management tools to enhance efficiency and quality.	1.Cybersecurity and Protection: Enhancing cybersecurity measures and data confidentiality can enhance user trust and provide a secure digital environment for users. **Information quality** 1.System Performance Residual Stability: As data volumes increase, system stability and security become a major challenge, and system stability and security breaches can be detrimental to an organisation's reputation and user trust.

Table 4.10 (Continued)

O	T
Information servise quality	**Information servise quality**
1.International co-operation and services: through co-operation with international universities and institutions, quality digital resources can be shared, the internationalisation of library services can be enhanced, and users can be provided with a wider range of learning and research resources.	1.Technology tools and innovative applications: the rapid iteration of technological innovation development makes libraries a challenge for continuous updating and learning.
Intention to use	**Intention to use**
1. User Needs and Satisfaction Enhancement: by understanding and meeting user needs through research and feedback mechanisms, libraries can enhance user satisfaction and loyalty. 2. Promotion and Incentive Strategies: Through various promotion activities and incentive strategies, libraries can increase the usage of digital resources and enhance users' digital literacy.	1. Technical support and infrastructure: Rapid advances in technology can lead to rapid obsolescence of existing infrastructure and resources, placing pressure on libraries to update and maintain them.
User satisfaction	**User satisfaction**
1. User experience and satisfaction: User satisfaction can be continuously improved by actively collecting user feedback and adjusting management strategies and service processes.	1. Teaching and research support: providing accuracy, authority and richness is not measured to accurately and effectively support teaching and research activities.

Table 4.10 (Continued)

O	T
Individual benefit	**Individual benefit**
1. Academic research and exchange: specialised research data management courses and research support services, as well as links with internal and external partners, provide an excellent platform for academic exchange and resource sharing.	1. User services and experience: Changing user needs require services and resources to be able to adapt flexibly, which can pose a challenge to resource management and service delivery.

Now according to the questionnaire each dimension of the highest score of 2 items and SWOT content analysis to form a preliminary strategy outline as follows:

1. Enhancing System quality

1) System Performance Optimisation and Upgrades: Continuous system and network architecture optimisation, load balancing and caching strategies can improve system stability and responsiveness, thus enhancing user experience.

2) User Experience and Interface Improvement: Enhance user-friendliness and increase user satisfaction by providing an intuitive and easy-to-use interface and platform.

3) Digital Resource Acquisition and Collaboration: over-reliance on establishing partnerships with content providers can enrich the library's digital resource base with self-built databases and improve the library's attractiveness and competitiveness.

4) Advanced Search Functions and Academic Research: Developing advanced search functions, such as semantic search and Linked Data search, can improve search accuracy and meet the needs of academic research.

5) Cybersecurity and Protection: Enhancing cybersecurity measures and data confidentiality can enhance user trust and provide a secure digital environment for users.

2. Enhancing Information quality

1) Information Quality and Data Audit: High standards of data cleansing and standardisation procedures ensure information quality and improve the efficiency and reliability of data use.

2) Updating and Expansion of Library Digital Resources: Continuous updating and expansion of library resources to meet user needs and enhance the attractiveness and competitiveness of library services.

3) Improvement and optimisation of self-built databases: Maintenance and upgrading of self-built databases require professional and technical support, and may face constraints in terms of resources and skilled personnel.

4) Technological dimensions and innovation: technological innovations provide opportunities to improve services and optimise system performance, such as through automation tools and metadata management tools to enhance efficiency and quality.

5) System Performance Residual Stability: As data volumes increase, system stability and security become a major challenge, and system stability and security breaches can be detrimental to an organisation's reputation and user trust.

3. Enhancing Information servise quality

1) Library subject services: the development of a team of subject specialists and the customisation of exclusive resource recommendation services can deepen the integration of libraries with subject teaching and provide more precise and personalised services.

2) Multilingual services: Enhanced multilingual service capabilities using technological tools such as machine translation can meet the needs of users from different backgrounds and improve the accessibility and inclusiveness of services.

3) User research and feedback: Systematic user research and feedback mechanisms are not well developed, making it difficult to better understand the needs of library users.

4) International co-operation and services: through co-operation with international universities and institutions, quality digital resources can be shared, the internationalisation of library services can be enhanced, and a wider range of learning and research resources can be provided to users

5) Technology tools and innovative applications: the rapid iteration of technological innovation development makes libraries a challenge for continuous updating and learning.

4. Supporting Intention to use

1) Importance and utilisation of digital resources: the importance of digital resources in teaching, research and work reflects their contribution to improving the efficiency of work and the quality of research.

2) Resource management and service optimisation: digital resource management measures are inadequate, and the updating of resource services and resources is difficult to meet user needs.

3) User Needs and Satisfaction Enhancement: by understanding and meeting user needs through research and feedback mechanisms, libraries can enhance user satisfaction and loyalty.

4) Promotion and Incentive Strategies: Through various promotion activities and incentive strategies, libraries can increase the usage of digital resources and enhance users' digital literacy.

5) Technical support and infrastructure: Rapid advances in technology can lead to rapid obsolescence of existing infrastructure and resources, placing pressure on libraries to update and maintain them.

5. Enhancing User satisfaction

1) User training and education: Regular user training and teacher seminars are conducted to improve users' efficiency and skills in utilising digital resources.

2) Optimisation of information retrieval and service quality: user satisfaction and loyalty can be enhanced by optimising the information retrieval process and improving service quality.

3) User Interface Design and Optimisation: continuous user interface design testing and improvement requires constant resource investment and user feedback, with execution challenges.

4) User experience and satisfaction: User satisfaction can be continuously improved by actively collecting user feedback and adjusting management strategies and service processes.

5) Teaching and research support: providing accuracy, authority and richness is not measured to accurately and effectively support teaching and research activities.

6. Supporting Individual benefit

1) Quality and quantity of digital resources: the provision of rich, diverse and high-quality digital resources meets a wide range of user needs and enhances user satisfaction.

2) Optimisation of service flow: Optimised user interface and clear and concise operation guidelines reduce the difficulty of use and significantly enhance user experience.

3) Training and skills upgrading: Participation in training and the effectiveness of training may be limited by the level of user involvement and the usefulness of the training content.

4) Academic research and exchange: specialised research data management courses and research support services, as well as links with internal and external partners, provide an excellent platform for academic exchange and resource sharing.

5) User services and experience: Changing user needs require services and resources to be able to adapt flexibly, which can pose a challenge to resource management and service delivery.

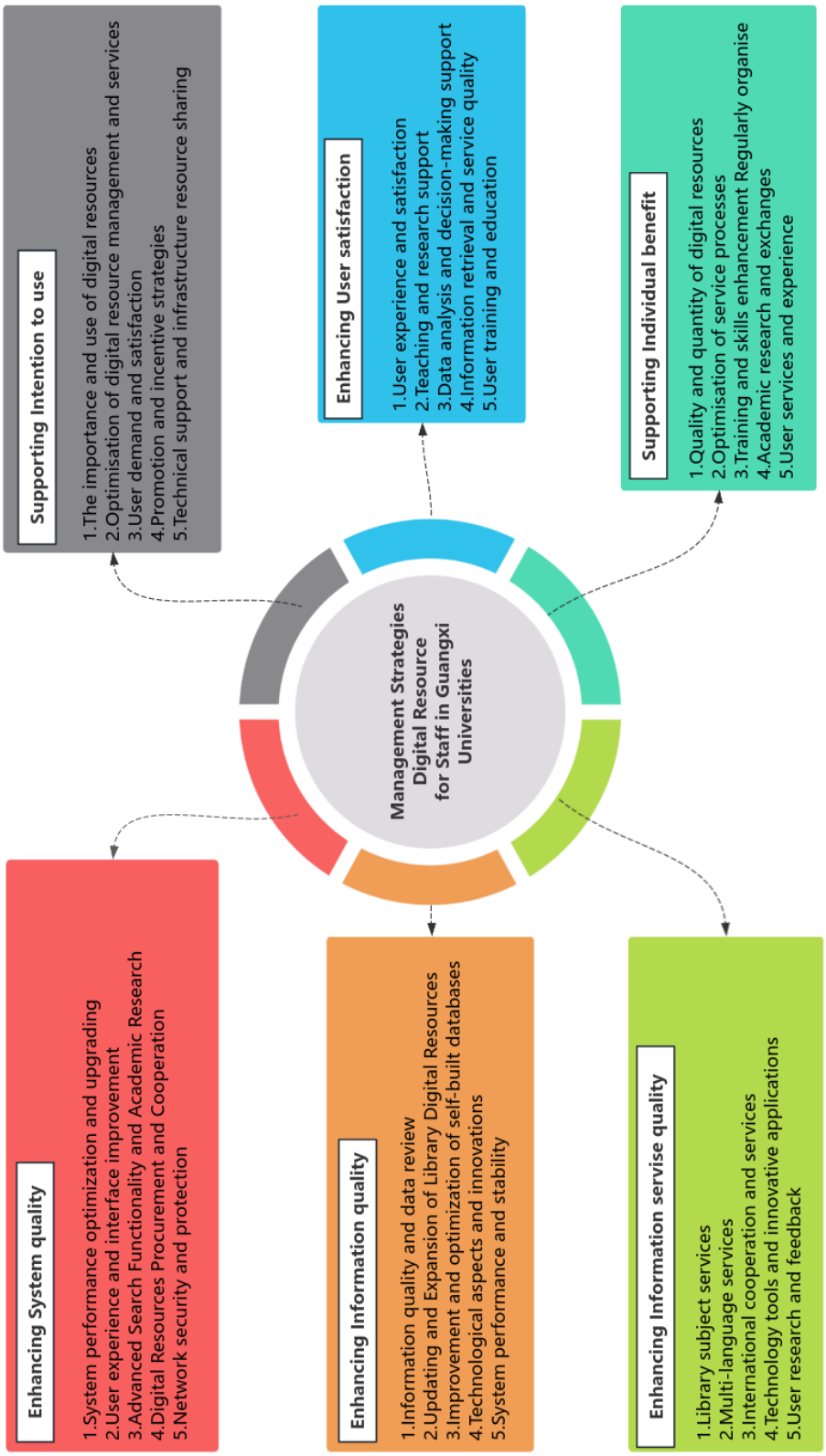

Figure 4.1 Outline of the strategy for digital resource management for staff in Guangxi universities

Part 3: The analysis result about the focus group interviews contents about the digital resource management for staff in Guangxi universities.

This section aims to enhance the strategy of digital resource management for staff in Guangxi universities. In order to achieve this goal, this study used a focus discussion group to form a group of 10 people to make modifications and revisions and additions based on the current status and outline of digital resource management for staff in Guangxi universities provided above. The formation of the focus discussion group consisted of 10 staff from Guangxi universities. Through the discussion, a preliminary research on strategies to enhance the digital resource management for staff in Guangxi universities was formed, which provided important data support for us to further determine the enhancement strategies.

Table 4.11 Personal information of interviewee

Interviewee	Educaiton background	Interview Date	Interview Time
Interviewee1	**Education:** Doctor's degree **Expertise:** Education management **Work experience:** 15years	November 8th ,2023	9:00 am GMT+8 40minutes
Interviewee2	**Education:** Doctor's degree **Expertise:** Education management **Work experience:** 11years	November 11th ,2023	14:00 pm GMT+8 40minutes
Interviewee3	**Education:** Doctor's degree **Expertise:** Education management **Work experience:** 13years	November 14th ,2023	10:00 am GMT+8 40minutes
Interviewee4	**Education:** Doctor's degree **Expertise:** Education management **Work experience:** 10years	November 17th ,2023	15:00 pm GMT+8 40minutes
Interviewee5	**Education:** Doctor's degree **Expertise:** Education management **Work experience:** 12years	November 19th ,2023	9:00 am GMT+8 40minutes

Table 4.11 (Continued)

Interviewee	Educaiton background	Interview Date	Interview Time
Interviewee6	**Education:** Doctor's degree **Expertise:** Education management **Work experience:** 11years	November 21st ,2023	15:00 pm GMT+8 40minutes
Interviewee7	**Education:** Doctor's degree **Expertise:** Education management **Work experience:** 11years	November 23rd,2023	9:00 am GMT+8 40minutes
Interviewee8	**Education:** Doctor's degree **Expertise:** Education management **Work experience:** 13years	November 25th ,2023	15:00 pm GMT+8 40minutes
Interviewee9	**Education:** Doctor's degree **Expertise:** Education management **Work experience:** 10years	November 27th ,2023	9:00 am GMT+8 40minutes
Interviewee10	**Education:** Doctor's degree **Expertise:** Education management **Work experience:** 12years	November 30th ,2023	15:00 pm GMT+8 40minutes

The focus discussion group lasted a total of 40 minutes and each person completed 1 pages of information, resulting in a total of 10 pages of transcript. Table 4.11 describes the descriptive details of the interview data, including the focus discussion group members' basic information, date, and time. The research team conducted 1 centralized focus discussion using the Tencent meeting application, and then asked them to continue to revise and add to it based on the provided outline of the current status of digital resource management strategies for staff in Guangxi Universities, and the following are the revisions and suggestions to the outline from each of the 10 focus interview panelists, extracting the content of the revisions and additions from each of the experts as shown below:

1. Enhancing System quality can be analysed in depth based on the six content points mentioned.

1) System performance optimisation and upgrading

Focus point: How system performance affects user experience and speed of resource acquisition. Discussions covered server upgrades, network architecture optimisation, load balancing, caching strategies, database management system selection and optimisation, as well as the frequency of system maintenance and updates and implementation strategies.

Participants' feedback: Feedback may focus on system latency, low failure rate, and minimisation of the impact of the update and maintenance process on user services.

2) User Experience and Interface Improvement

Discussion Points: Explore the improvement of the search interface, intuitive and easy-to-use interface design, friendly platform operation experience, and the effectiveness of the user feedback collection mechanism.

Participants' Feedback: Specific interface design improvement suggestions, user feedback mechanism improvement points, and other aspects of user experience enhancement may be put forward.

3) Library digital resource management and platform optimisation

Discussion Points: Discuss the current status of digital resource management in libraries, hardware and software upgrading plans, system performance monitoring, and optimisation and updating of platform functions.

Participant Feedback: Concerns may include the efficiency of resource management, whether platform functionality meets current and future needs, and how to achieve more effective resource management.

4) Advanced search functionality and academic research

Discussion Points: Explore the implementation of advanced search functions (e.g., semantic search, linked data search) and ways to improve search accuracy.

Feedback from participants: Possible focus on the usefulness of search functions, how to better support the needs of academic research, and suggestions for optimising search in specific subject areas.

5) Digital Resource Acquisition and Collaboration

Discussion Points: Discuss strategies for digital resource acquisition, performance metrics, vendor selection and collaboration, and ways to collaborate with content providers.

Participant Feedback: Feedback may relate to the effectiveness of sourcing strategies, optimisation of collaboration models, and how to ensure the quality and diversity of resources.

6) Cybersecurity and Protection

Discussion Points: Discuss the importance of cyber security, cyber protection measures and vulnerability remediation strategies, and data confidentiality and integrity protection.

Participant Feedback: May include evaluation of current cybersecurity measures, suggestions for improvement, and measures on how to enhance data protection.

2. Enhancing Information quality can be analysed in depth based on the six content points mentioned.

1) Information Quality and Data Review

Discussion Points: Discuss the importance of information quality, processes for data cleansing and standardization, data review mechanisms, and quality control standards.

Participant Feedback: Feedback may focus on the importance of data accuracy, consistency, and timeliness, as well as how effective data review mechanisms can ensure information quality.

2) Updating and Expansion of Library Digital Resources

Discussion Points: Discuss the updating of existing resources, enriching the library's digital resources, and how to update resources based on user needs and academic dynamics.

Participant Feedback: Feedback may concern timely updates of resources, how to better meet user needs, and strategies and effectiveness of resource expansion.

3) Improvement and Optimization of Self-built Databases

Discussion Points: Explore the challenges faced by self-built databases, improvement measures, technical optimization and upgrades, and database performance enhancement.

Participant Feedback: Feedback might include specific difficulties in operating self-built databases, suggestions for technical optimization, and plans for enhancing database performance.

4) User Experience and Service Improvement

Discussion Points: Discuss the importance of user experience, providing accurate and efficient search services, and mechanisms for user feedback and demand response.

Participant Feedback: Feedback may focus on improving search services, strengthening user feedback mechanisms, and specific suggestions on better responding to user needs.

5) Technological Aspects and Innovations

Discussion Points: Discuss technological innovations and upgrades, the application of automated tools and data management, and the use of metadata management tools.

Participant Feedback: Feedback may focus on the application effects of new technologies, the role of automation tools in data management, and practical experiences with metadata management.

6) System Performance and Stability

Discussion Points: Discuss system performance optimization, database response speed, and ensuring stable system operation.

Participant Feedback: Feedback may concentrate on the current state of system performance, issues faced, and strategies for achieving stable system operation.

3. Enhancing Information servise quality can be analysed in depth based on the six content points mentioned.

1) Library Subject Services

Discussion Points: Propose the development of a team of subject specialists, customized resource recommendations and service packages, and the establishment of resource libraries that are synchronized with the teaching and learning progress of subjects.

Participant Feedback: Feedback may include suggestions on how to effectively align library services with academic curricula, the importance of subject specialization in enhancing service quality, and ways to customize resources to meet specific academic needs.

2) Multi-language Services

Discussion Points: Utilize machine translation and other technological tools to enhance multi-language service capabilities, aiming to break down language barriers and provide comprehensive multi-language support.

Participant Feedback: Feedback might focus on the effectiveness of machine translation tools, the importance of supporting multiple languages in academic resources, and suggestions for improving linguistic accessibility.

3) Difficulty Resolution and User Support

Discussion Points: Establish a demand response system, problem tracking system, research support group, etc., to provide timely and effective help to users facing issues.

Participant Feedback: Feedback may concentrate on the efficiency of the support systems in place, user satisfaction with the resolution process, and areas for improvement in user support.

4) International Cooperation and Services

Discussion Points: Strengthen cooperation with international universities, share high-quality digital resources, and enhance the international level of disciplinary services.

Participant Feedback: Feedback could include insights into the benefits and challenges of international cooperation, strategies for effective resource sharing, and the impact of such collaborations on academic services.

5) Technology Tools and Innovative Applications

Discussion Points: Utilize advanced information technologies such as artificial intelligence, machine learning, natural language processing, and speech recognition to improve library services.

Participant Feedback: Feedback might explore the application of these technologies in library settings, potential benefits for user experience, and innovative ways to incorporate technology into library services.

6) User Research and Feedback

Discussion Points: Develop an integrated service management strategy based on actual user service data and feedback, aiming to continuously improve service quality.

Participant Feedback: Feedback could focus on the effectiveness of current feedback mechanisms, ways to better collect and utilize user input, and strategies for adapting services based on user needs.

4. Supporting Intention to use can be analysed in depth based on the six content points mentioned.

1) The Importance and Use of Digital Resources

Discussion Points: Highlight the significance of digital resources in teaching, research, and work, and discuss how digital resources can enhance work efficiency and research quality.

Participant Feedback: Feedback may include personal experiences on the impact of digital resources on academic and professional activities, and suggestions for increasing their utilization.

2) Optimization of Digital Resource Management and Services

Discussion Points: Focus on updating resources, improving search functionalities, and offering recommended resources and training courses to users.

Participant Feedback: Feedback could cover the effectiveness of current resource management practices, areas for improvement in search functions, and the usefulness of training and recommendations.

3) User Demand and Satisfaction

Discussion Points: Employ research and feedback mechanisms to understand user demands, and tailor services and resources to meet these needs.

Participant Feedback: Feedback may reveal insights into user needs, satisfaction levels with current services, and requests for specific personalized services or resources.

4) Promotion and Incentive Strategies

Discussion Points: Discuss strategies to promote digital resources, including training, seminars, website recommendations, incentive schemes, and integrating digital resource use into staff development plans.

Participant Feedback: Feedback might include reactions to promotional

efforts, effectiveness of incentive schemes, and suggestions for improving awareness and engagement with digital resources.

5) Academic Seminars and Resource Sharing

Discussion Points: Plan for organizing academic seminars and establishing a resource-sharing platform, highlighting the value of digital resources through the publication of research results.

Participant Feedback: Feedback could focus on the benefits of academic seminars and resource sharing, success stories, and ways to enhance collaboration and dissemination of digital resources.

6) Technical Support and Infrastructure

Discussion Points: Provide technical support and necessary infrastructure, ensure network stability, offer mobile access, and customize technical training for users.

Participant Feedback: Feedback may address the adequacy of technical support, infrastructure needs, experiences with network stability and mobile access, and preferences for technical training formats.

5. Enhancing User satisfaction can be analysed in depth based on the six content points mentioned.

1) User Experience and Satisfaction

Discussion Points: Focus on collecting user feedback, adjusting management strategies, and service processes to enhance user satisfaction. Explore how user feedback directly influences library policies and service improvements.

Participant Feedback: Feedback may include user experiences with digital resources, suggestions for improving service processes, and overall satisfaction levels.

2) User Interface Design and Optimization

Discussion Points: Address the clarity, aesthetics, and ease of use of the user interface, including testing, improvement, and customization settings. Discuss the importance of intuitive design in facilitating access to digital resources.

Participant Feedback: Feedback might focus on specific aspects of the interface that users find helpful or problematic, suggestions for design improvements, and preferences for customization options.

3) Teaching and Research Support

Discussion Points: Explore the accuracy, authority, and richness of digital resources in supporting teaching and research activities. Discuss how digital resources

can be tailored to meet the specific needs of academic programs.

Participant Feedback: Feedback could include the effectiveness of current digital resources in supporting academic work, areas where additional resources are needed, and suggestions for enhancing resource collections.

4) Data Analysis and Decision-making Support

Discussion Points: Discuss the role of customized data analysis reports and the establishment of decision support systems in improving library services and resource allocation.

Participant Feedback: Feedback may involve the usefulness of data analysis in meeting users' needs, suggestions for improving decision-making processes, and the impact of data-driven strategies on user satisfaction.

5) Information Retrieval and Service Quality

Discussion Points: Focus on optimizing the information retrieval process and improving service quality, including providing detailed help files, online tutorials, and establishing thematic areas.

Participant Feedback: Feedback might concentrate on the effectiveness of search functions, the quality of help resources, and suggestions for improving information retrieval and service quality.

6) User Training and Education

Discussion Points: Discuss the importance of user training in enhancing the efficiency of digital resource use, including regular training sessions, teacher seminars, and other educational initiatives.

Participant Feedback: Feedback could focus on the effectiveness of current training programs, desired topics for future training, and the impact of educational efforts on users' ability to effectively utilize digital resources.

6. Supporting Individual benefit can be analysed in depth based on the six content points mentioned.

1) Quality and Quantity of Digital Resources

Discussion Points: Emphasize the importance of providing a rich, diverse, and high-quality selection of digital resources to meet the varied needs of the university community.

Participant Feedback: Feedback may include evaluations of the current digital resource collection, suggestions for areas of expansion, and the importance of

resource quality in supporting academic and research work.

2) Optimization of Service Processes

Discussion Points: Discuss the optimization of the user interface, providing clear and concise operation guidelines to reduce the difficulty of use and enhance the user experience.

Participant Feedback: Feedback might focus on user experiences with the current interface, suggestions for simplifying navigation, and the effectiveness of operational guidelines in facilitating resource access.

3) Training and Skills Enhancement

Discussion Points: Regular organization of training on digital resource management to enhance the digital literacy and skills of different users.

Participant Feedback: Feedback could include the perceived value of existing training programs, areas where additional training is needed, and suggestions for improving educational offerings.

4) Academic Research and Exchanges

Discussion Points: Provide specialized research data management courses and research support services, strengthen the connection between internal and external partners, and promote the sharing and exchange of digital resources.

Participant Feedback: Feedback may involve the effectiveness of research support services, the benefits of data management courses, and suggestions for enhancing collaboration and resource exchange.

5) Specific User Group Needs

Discussion Points: Provide customized services to meet the specific needs of different user groups (e.g., undergraduates, postgraduates, teachers, administrators, etc.).

Participant Feedback: Feedback could focus on how well current services meet the unique needs of these groups, areas of unmet need, and suggestions for creating more tailored services.

6) User Services and Experience

Discussion Points: Offer customized and efficient user support and services, including workshop series, online tutorials, and one-on-one research consulting services.

Participant Feedback: Feedback might concentrate on the quality and effectiveness of current user support offerings, suggestions for new services, and experiences with personalized support options.

Table 4.12 Digital resource management for staff in Guangxi universities

digital resource management for staff in Guangxi universities	How to
Enhancing System quality	1.**System performance optimization and upgrading**, system performance, server upgrade, network architecture optimization, load balancing, caching strategy, database management system, system maintenance and update. 2.**User experience and interface improvement**, user experience, search interface improvement, intuitive and easy-to-use interface, user-friendly platform, user feedback collection. 3.**Library digital resource management and platform optimization**, library digital resource management, hardware and software upgrade plan, system performance monitoring, platform function optimization update. 4.**Advanced Search Functionality and Academic Research**,Advanced Search Functionality, Semantic Search, Linked Data Search, Search Accuracy. 5.**Digital Resources Procurement and Cooperation**, Digital Resources Procurement, Performance Indicators, Supplier Selection and Cooperation, Content Provider Cooperation. 6.**Network security and protection**, the importance of network security, network protection and vulnerability repair, data confidentiality and integrity.

Table 4.12 (Continued)

digital resource management for staff in Guangxi universities	**How to**
Enhancing Information quality	1.**Information quality and data review**, importance of information quality, data cleansing and standardization, data review mechanisms, quality control standards. 2.**Updating and Expansion of Library Digital Resources**, Updating, Resource Expansion and Richness of Library Digital Resources, User Needs and Academic Dynamics Concerns. 3.**Improvement and optimization of self-built databases**, challenges and improvements of self-built databases, technical optimization and upgrading, database performance improvement. 4.**User experience and service improvement**, the importance of user experience, accurate and efficient search service, user feedback and demand response. 5.**Technological aspects and innovations**, technological innovations and upgrades, automated tools and data management, metadata management tools applications. 6.**System performance and stability**, system performance optimization, database response speed, stable system operation.
Enhancing Information servise quality	1.**Library subject services**, proposing the development of a team of subject specialists, customized resource recommendations and service packages, and the establishment of resource libraries synchronized with the teaching and learning progress of subjects. 2.**Multi-language services**, utilizing machine translation and other technological tools to enhance multi-language service capabilities, breaking down

Table 4.12 (Continued)

digital resource management for staff in Guangxi universities	How to
	language barriers and providing multi-language support. 3.**Difficulty resolution and user support**, establishment of demand response system, problem tracking system, research support group, etc. to provide timely and effective help. 4.**International cooperation and services**, strengthen cooperation with international universities, share high-quality digital resources, and enhance the international level of disciplinary services. 5.**Technology tools and innovative applications**, utilizing advanced information technologies such as artificial intelligence, machine learning, natural language processing and speech recognition. 6.**User research and feedback**, development of an integrated service management strategy, based on actual user service data and feedback.
Enhancing Information servise quality	
Supporting Intention to use	1. **The importance and use of digital resources**, the importance of digital resources in teaching, research and work, and the use of digital resources to improve the efficiency of work and the quality of research. 2. **Optimisation of digital resource management and services**, updating resources, improving search functions, and providing recommended resources and training courses. 3. **User demand and satisfaction**, through research and feedback mechanism, to understand user demand, and provide personalised services and resources according to user demand.

Table 4.12 (Continued)

digital resource management for staff in Guangxi universities	How to
Supporting Intention to use	4. **Promotion and incentive strategies**, promote digital resources, through training, seminars, website recommendations, incentive schemes, the use of digital resources into the staff development plan 5. **Academic seminars and resource sharing**, organising academic seminars and establishing a resource sharing platform, and reflecting the value of digital resources through the publication of research results. 6. **Technical support and infrastructure**, providing technical support and infrastructure roles, ensuring network stability, providing mobile access, and customising technical training.
Enhancing User satisfaction	1.**User experience and satisfaction**, referring to the collection of user feedback, adjustment of management strategies and service processes 2. **User interface design and optimisation**, clarity, aesthetics and ease of use of the user interface and interface design testing, improvement and personalisation settings 3. **Teaching and research support**, accuracy, authority and richness support of digital resources, and digital resource support for teaching and research 4. **Data analysis and decision-making support**, referring to customised data analysis reports and the establishment of decision support systems 5. **Information retrieval and service quality**, optimise the information retrieval process and improve service quality, provide detailed help files, online tutorials and establish theme areas.

Table 4.12 (Continued)

digital resource management for staff in Guangxi universities	How to
	6. **User training and education**, user training, efficiency in the use of digital resources, regular user training, teacher seminars.
Supporting Individual benefit	1. **Quality and quantity of digital resources**, mentioning the provision of rich, diverse and high-quality digital resources 2. **optimisation of service processes**, discussing the optimisation of the user interface, providing clear and concise operation guidelines, mentioning the reduction of the difficulty of use and the enhancement of user experience 3. **Training and skills enhancement Regularly organise** ,training on digital resource management to enhance the digital literacy and skills of different users 4. **Academic research and exchanges**, Provide specialised research data management courses and research support services, strengthen the connection between internal and external partners, and promote the sharing and exchange of digital resources. 5. **Specific User Group Needs Provide customised**, services to meet the specific needs of different user groups (e.g. undergraduates, postgraduates, teachers, administrators, etc). 6. **user services and experience**, customised and efficient user support and services, workshop series, online tutorials and one-on-one research consulting services

According to table 5.0, the researcher provided the digital resource management for staff in Guangxi universities in six aspects, which contain 36measures. There are 6 measures for System quality, 6 measures for Information quality, 6 measures for Information servise quality, 6 measures for Intention to use,6 measures for User satisfaction and 6 measures for Individual benefit.as shown in Figure 4.1

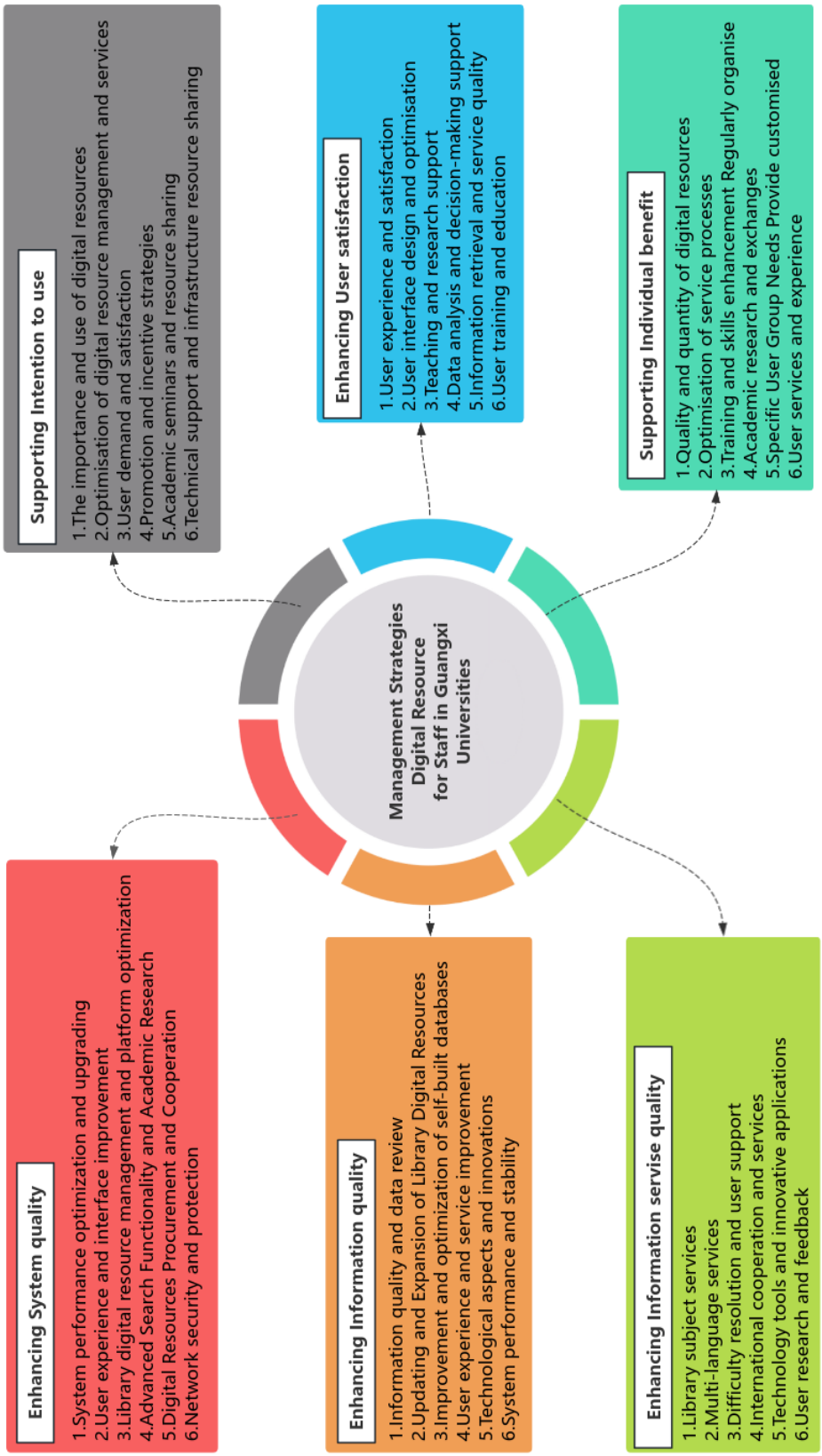

Figure 4.2 The strategy for digital resource management for staff in Guangxi universities

Digital resource management for staff in Guangxi universities is now shown in dimensions as follows :

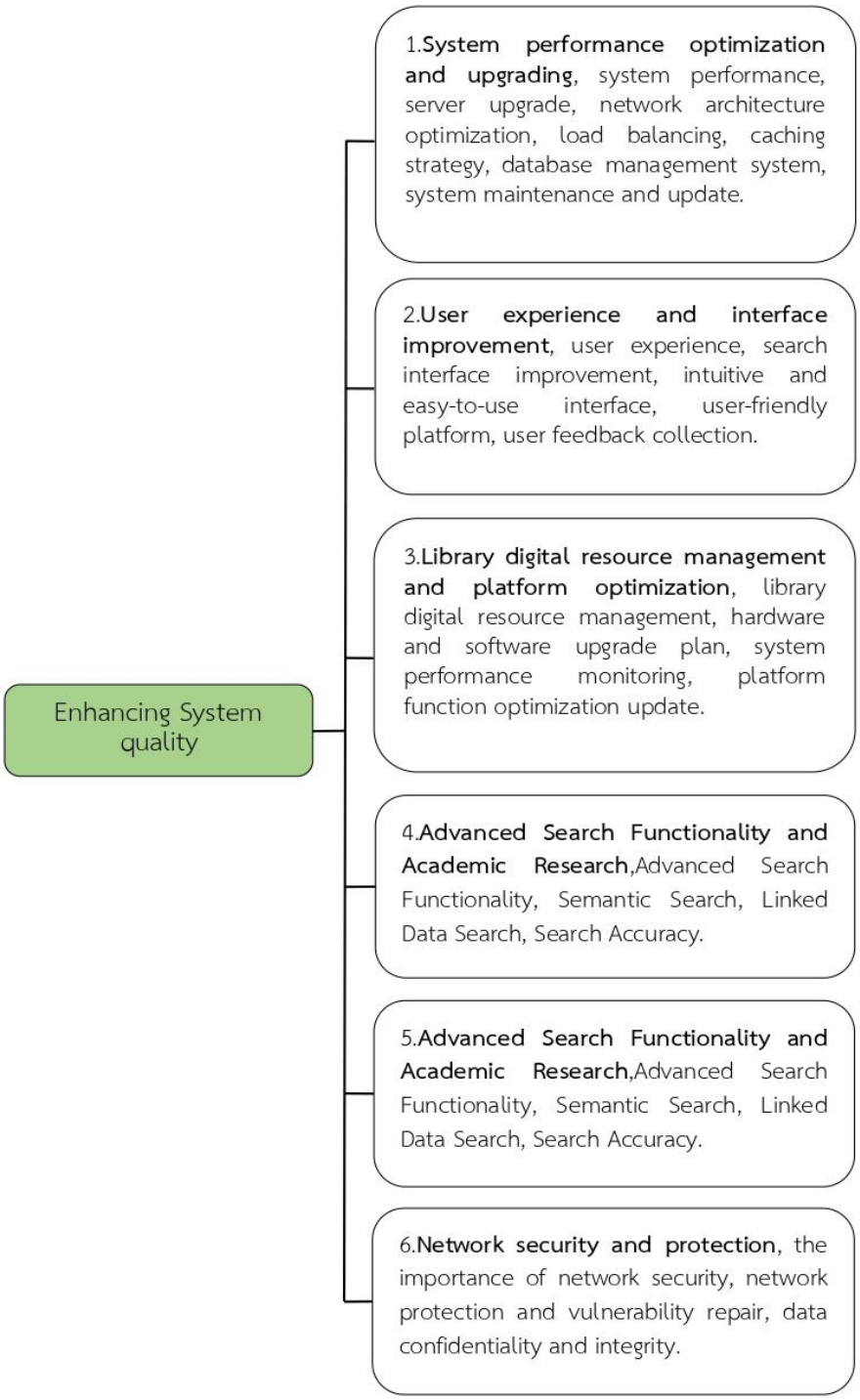

Figure 4.3 Elements of a Strategy to Enhancing System quality

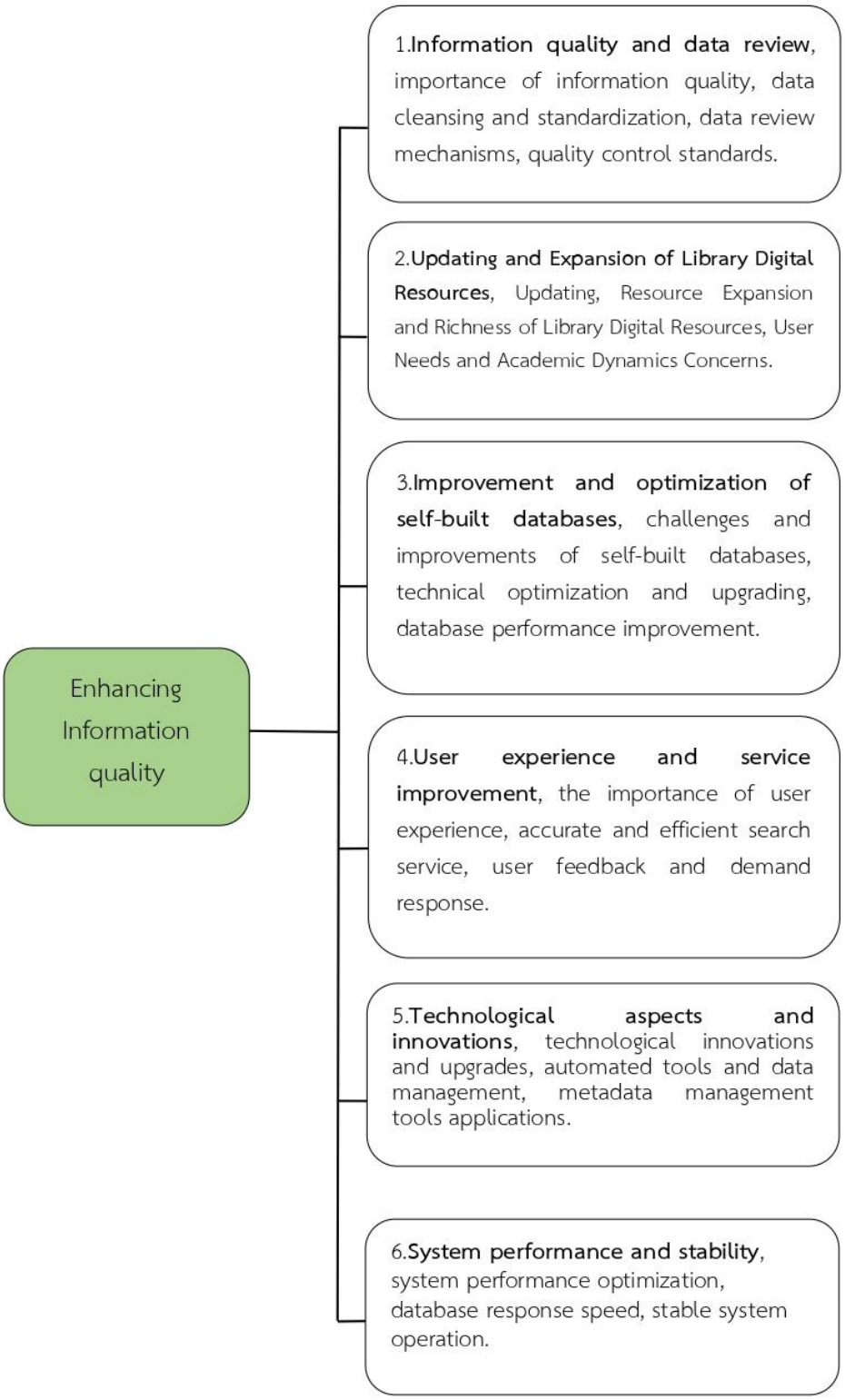

Figure 4.4 Elements of a strategy to Enhancing Information quality

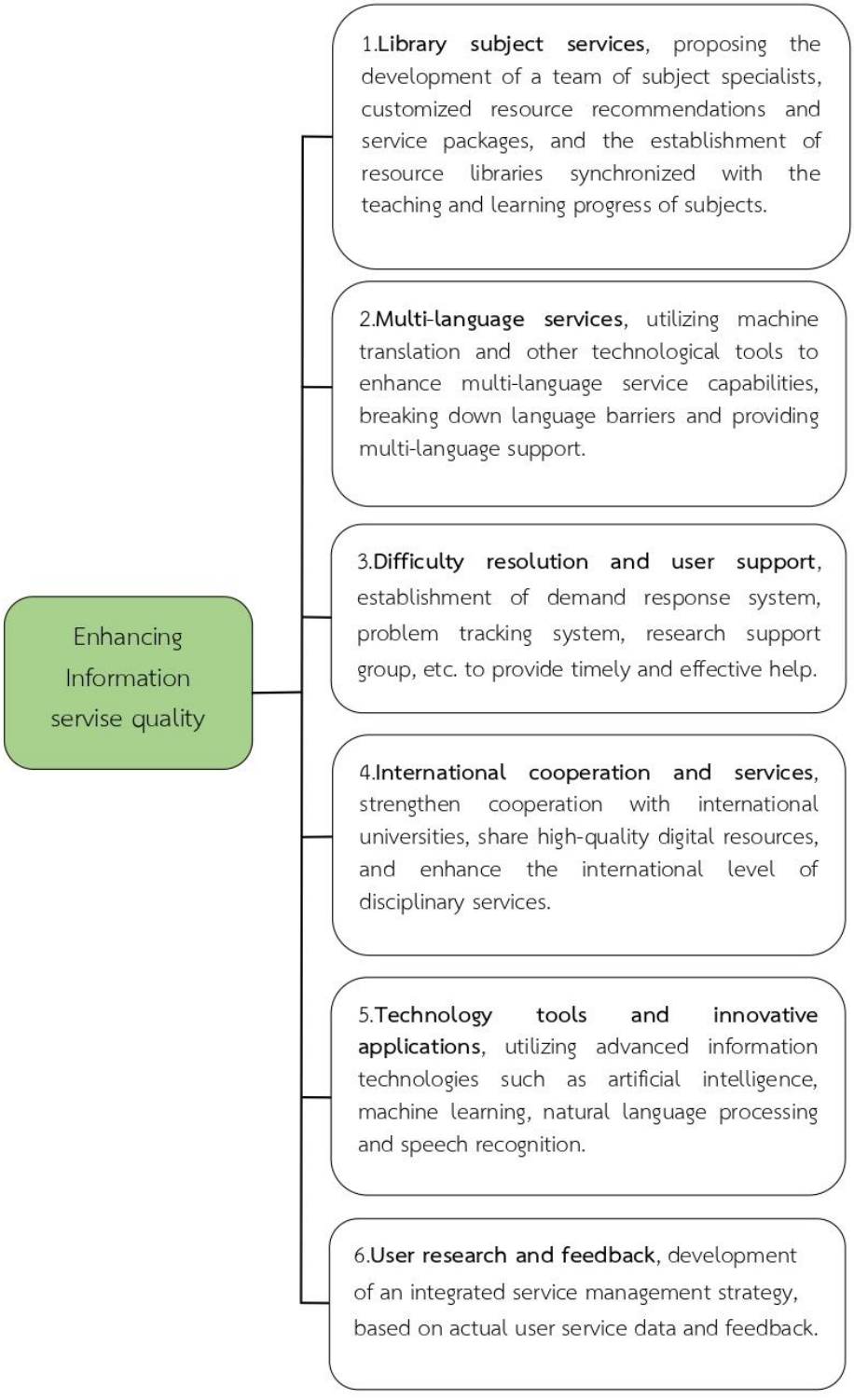

Figure 4.5 Elements of a strategy to Enhancing Information servise quality

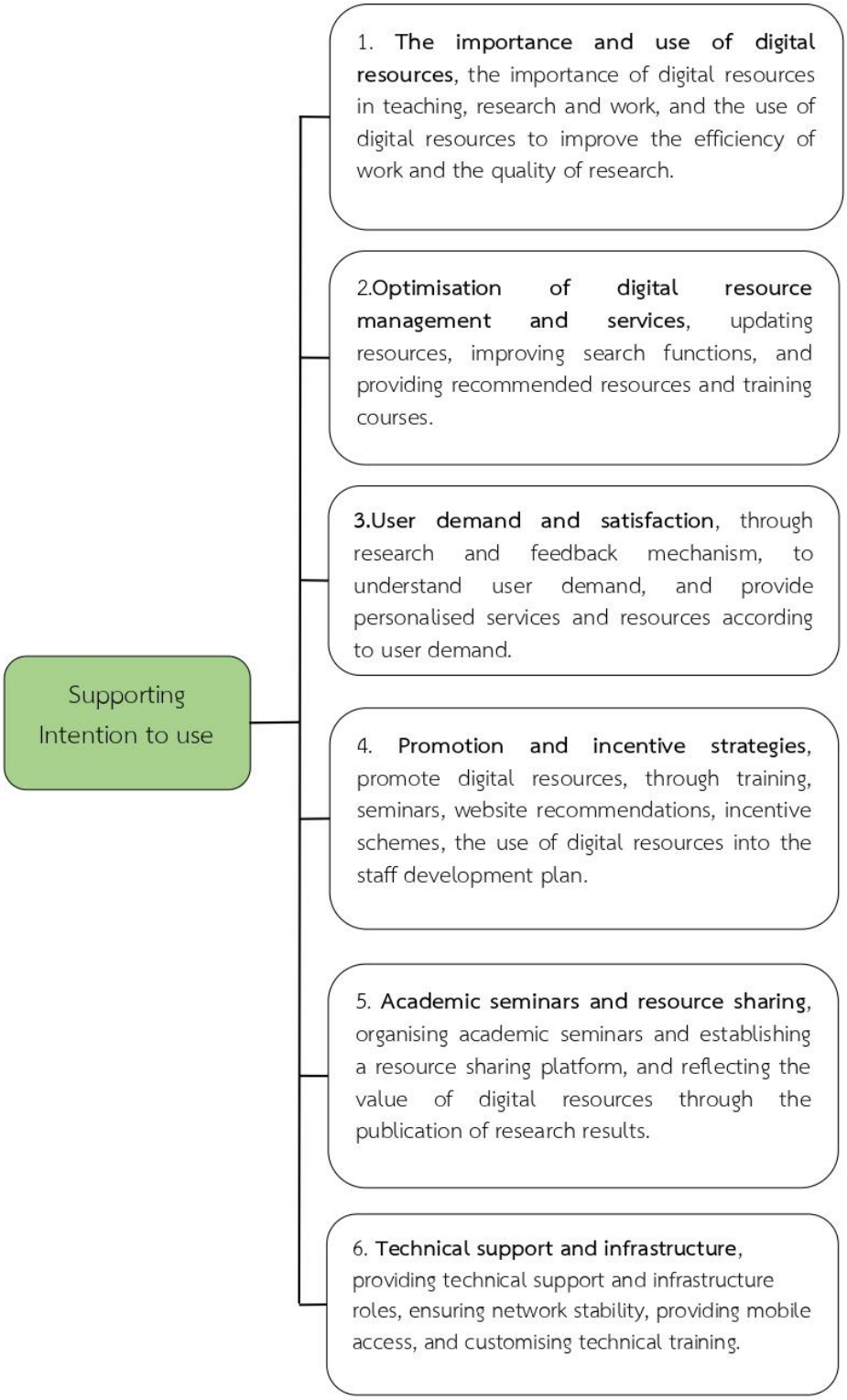

Figure 4.6 Elements of a Strategy for Supporting Intention to use

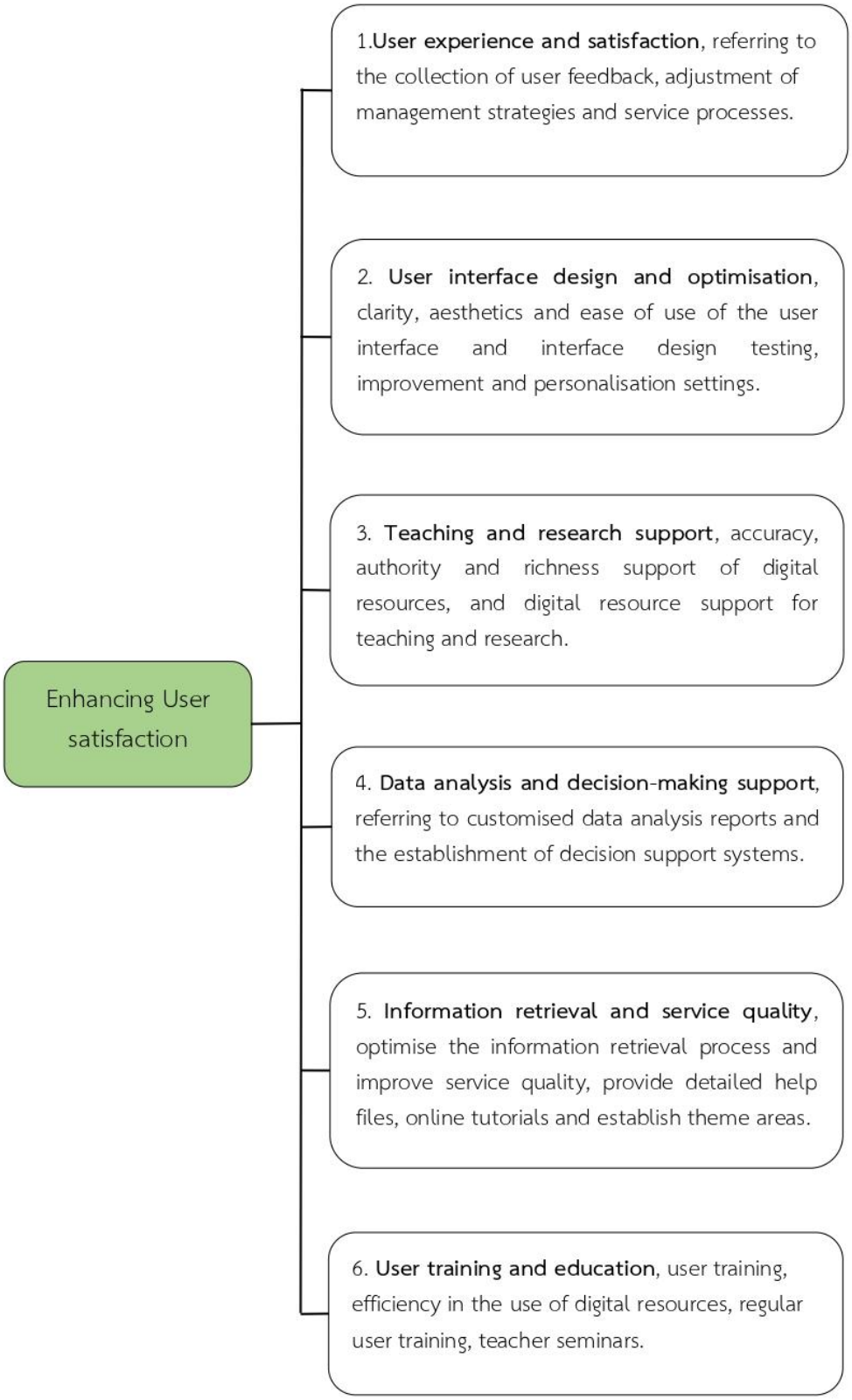

Figure 4.7 Elements of a Strategy for Enhancing User satisfaction

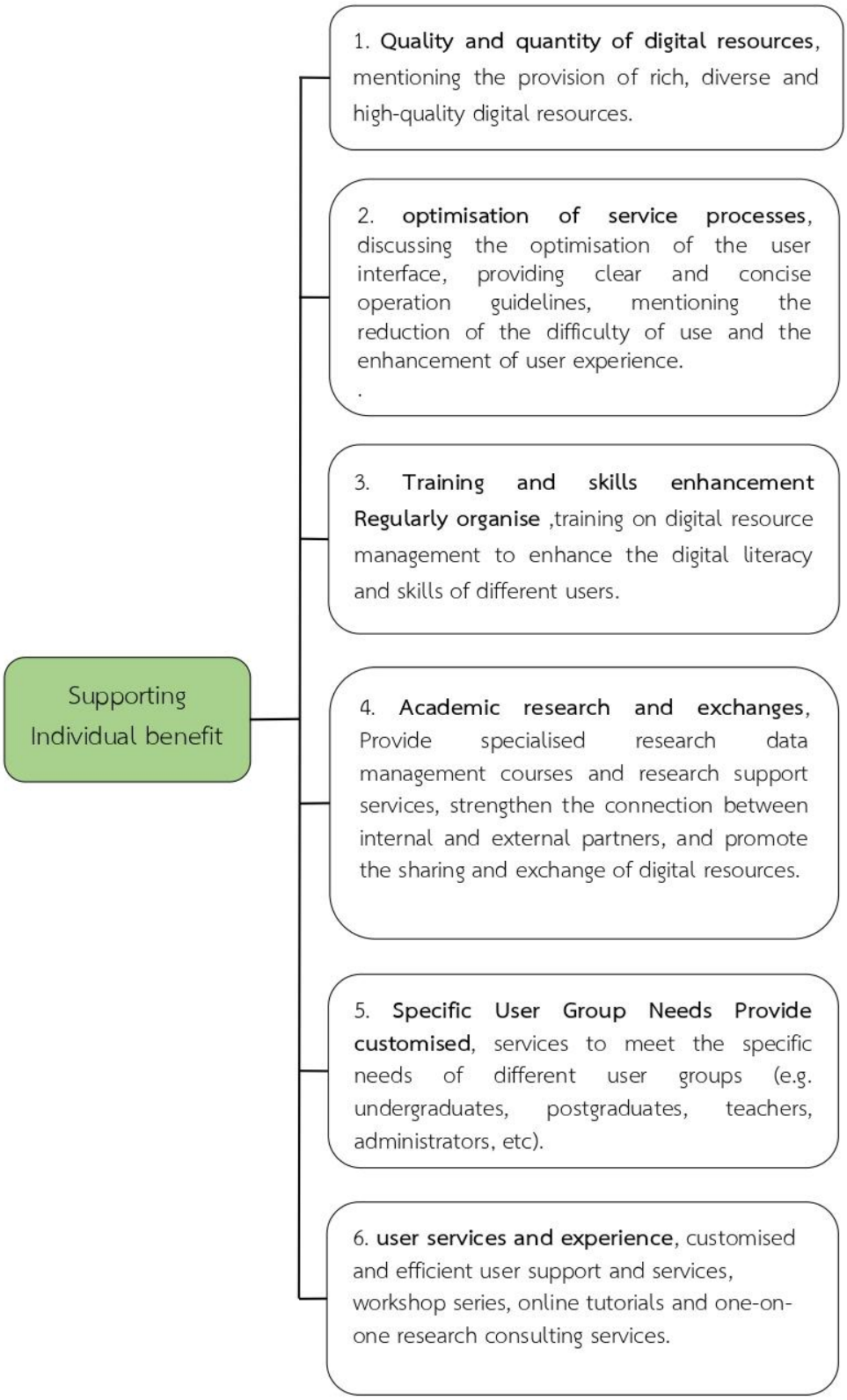

Figure 4.8 Elements of a Strategy for Supporting Individual benefit

Part 4: The analysis result about the evaluation of the Suitability and feasibility of digital resource management for staff in Guangxi universities in Presented the data in the form of average value and standard deviation.

Table 4.13 The average value and standard deviation of the evaluation of the Suitability and feasibility of digital resource management for staff in Guangxi universities in six aspects

(N = 15)

	Assessment checklist	Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
1	System quality	4.65	0.15	highest	4.63	0.14	highest
2	Information quality	4.72	0.19	highest	4.66	0.22	highest
3	Information servise quality	4.71	0.13	highest	4.70	0.19	highest
4	Intention to use	4.76	0.20	highest	4.70	0.18	highest
5	User satisfaction	4.71	0.19	highest	4.72	0.22	highest
6	Individual benefit	4.72	0.26	highest	4.74	0.17	highest
	Total	**4.71**	**0.14**	**highest**	**4.69**	**0.14**	**highest**

According to Table 4.13, the data show that the overall expert evaluation of the suitability and feasibility of the strategies is at the highest level ($\bar{X}$=4.71, $\bar{X}$=4.69), the Suitability and feasibility of digital resource management for staff in Guangxi universities in six aspects were at highest level with the values between 4.00 and 5.00, indicating the highest suitability and feasibility of the strategies. The suitability of digital resource management for staff in Guangxi universities is at the highest level ($\bar{X}$=4.71), with a standard deviation of 0.14, and the value of the overall standard deviation is small, with a small average deviation. In relation to the work to be carried out in this study, the levels from highest to lowest are as follows: The highest level is “Intention to use” ($\bar{X}$=4.76), followed by “Information quality” and “Individual benefit” ($\bar{X}$=4.72), and the lowest level is “System quality” ($\bar{X}$=4.65). The feasibility of digital resource management for staff in Guangxi universities is at the highest level ($\bar{X}$=4.69), with a standard deviation of 0.14, and the value of the overall standard deviation is small, with a small average deviation. In relation to the work to be carried out in this study, the levels from highest to lowest are as follows: The

highest level is “Individual benefit” ($\overline{X}$=4.74), followed by “User satisfaction” ($\overline{X}$=4.72), and the lowest level is “System quality”($\overline{X}$=4.63).

Table 4.14 Suitability and Feasibility of Strategies to Enhancing System quality

(N = 15)

	Enhancing System quality	Suitability			Feasibility		
		$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level
1	System performance optimization and upgrading	4.67	0.49	highest	4.80	0.41	highest
2	User experience and interface improvement	4.67	0.49	highest	4.73	0.46	highest
3	Library digital resource management and platform optimization	4.80	0.41	highest	4.73	0.46	highest
4	Advanced Search Functionality and Academic Research	4.67	0.49	highest	4.27	0.46	high
5	Digital Resources Procurement and Cooperation	4.60	0.51	highest	4.47	0.52	high
6	Network security and protection	4.53	0.52	highest	4.80	0.41	highest
	Total	**4.65**	**0.15**	**highest**	**4.63**	**0.14**	**highest**

According to Table 4.14, the data show that the overall expert evaluation of the suitability and feasibility of the strategies for Enhancing System quality is at the highest level ($\overline{X}$= 4.65, $\overline{X}$= 4.63), indicating the highest suitability and feasibility of the strategies. The suitability of digital resource management for staff in Guangxi universities is at the highest level ($\overline{X}$=4.65), with a standard deviation of 0.15, and the value of the overall standard deviation is small, with a small average deviation. In relation to the work to be carried out in this study, the levels from highest to lowest are as follows: The highest level is “Library digital resource management and platform optimization” ($\overline{X}$=4.80), followed by “System performance optimization and upgrading” “Advanced Search Functionality and Academic Researchg” and “User experience and interface improvement” ($\overline{X}$=4.67), and the lowest level is “Network security and protection”($\overline{X}$=4.53).

The feasibility of digital resource management for staff in Guangxi universities is at the highest level ($\overline{X}$=4.63), with a standard deviation of 0.14, and the value of the overall standard deviation is small, with a small average deviation. In relation to the work to be carried out in this study, the levels from highest to lowest are as follows: The highest level is "System performance optimization and upgrading" and "Network security and protection" ($\overline{X}$=4.80), followed by "User experience and interface improvement" and "Library digital resource management and platform optimization" ($\overline{X}$=4.73), and the lowest level is "Advanced Search Functionality and Academic Research" ($\overline{X}$=4.27).

Table 4.15 Suitability and Feasibility of Strategies to Enhancing Information quality

(N = 15)

	Enhancing Information quality	Suitability			Feasibility		
		$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level
1	Information quality and data review	4.67	0.49	highest	4.67	0.49	highest
2	Updating and Expansion of Library Digital Resources	4.93	0.26	highest	4.40	0.51	high
3	Improvement and optimization of self-built databases	4.87	0.35	highest	4.87	0.35	highest
4	User experience and service improvement	4.53	0.52	highest	4.67	0.49	highest
5	Technological aspects and innovations	4.60	0.51	highest	4.60	0.51	highest
6	System performance and stability	4.73	0.46	highest	4.73	0.46	highest
	Total	**4.72**	**0.19**	**highest**	**4.66**	**0.22**	**highest**

According to Table 4.15, the data show that the overall expert evaluation of the suitability and feasibility of the strategies for Enhancing Information quality is at the highest level ($\overline{X}$= 4.72, $\overline{X}$= 4.66), indicating the highest suitability and feasibility of the strategies. The suitability of digital resource management for staff in Guangxi universities is at the highest level ($\overline{X}$=4.72), with a standard deviation of 0.19, and the value of the overall standard deviation is small, with a small average deviation. In

relation to the work to be carried out in this study, the levels from highest to lowest are as follows: The highest level is “Updating and Expansion of Library Digital Resources” ($\overline{X}$=4.93), followed by “Improvement and optimization of self-built databases” ($\overline{X}$=4.87), and the lowest level is “User experience and service improvement” ($\overline{X}$=4.53).

The feasibility of digital resource management for staff in Guangxi universities is at the highest level ($\overline{X}$=4.66), with a standard deviation of 0.12, and the value of the overall standard deviation is small, with a small average deviation. In relation to the work to be carried out in this study, the levels from highest to lowest are as follows: The highest level is “Improvement and optimization of self-built databases” ($\overline{X}$=4.87), followed by “System performance and stability” ($\overline{X}$=4.73), and the lowest level is “Updating and Expansion of Library Digital Resources”($\overline{X}$=4.40).

Table 4.16 Suitability and Feasibility of Strategies to Enhancing Information servise quality

(N = 15)

	Enhancing Information servise quality	Suitability			Feasibility		
		$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level
1	Library subject services	4.87	0.35	highest	4.67	0.49	highest
2	Multi-language services	4.80	0.41	highest	4.67	0.49	highest
3	Difficulty resolution and user support	4.80	0.41	highest	4.73	0.59	highest
4	International cooperation and services	4.67	0.49	highest	4.80	0.41	highest
5	Technology tools and innovative applications	4.60	0.51	highest	4.67	0.49	highest
6	User research and feedback	4.53	0.52	highest	4.67	0.49	highest
	Total	**4.71**	**0.13**	**highest**	**4.70**	**0.19**	**highest**

According to Table 4.16, the data show that the overall expert evaluation of the suitability and feasibility of the strategies for Enhancing Information servise quality is at the highest level ($\overline{X}$=4.71, $\overline{X}$=4.70), indicating the highest suitability and feasibility of the strategies. The suitability of digital resource management for staff in Guangxi universities is at the highest level ($\overline{X}$=4.71), with a standard deviation of 0.13,

and the value of the overall standard deviation is small, with a small average deviation. In relation to the work to be carried out in this study, the levels from highest to lowest are as follows: The highest level is “Library subject services” ($\overline{X}$=4.87), followed by “Multi-language services” and “Difficulty resolution and user support” ($\overline{X}$=4.80), and the lowest level is “User research and feedback” ($\overline{X}$=4.53).

The feasibility of digital resource management for staff in Guangxi universities is at the highest level ($\overline{X}$=4.70), with a standard deviation of 0.19, and the value of the overall standard deviation is small, with a small average deviation. In relation to the work to be carried out in this study, the levels from highest to lowest are as follows: The highest level is “International cooperation and services” ($\overline{X}$=4.80), followed by “Difficulty resolution and user support” ($\overline{X}$=4.73), and the lowest level is “Library subject services” “Multi-language services” “Technology tools and innovative applications” and “User research and feedback” ($\overline{X}$=4.67).

Table 4.17 Suitability and Feasibility of Strategies to Supporting Intention to use

(N = 15)

	Supporting Intention to use	Suitability			Feasibility		
		$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level
1	The importance and use of digital resource	4.80	0.41	highest	4.60	0.51	highest
2	Optimisation of digital resource management and services	4.80	0.41	highest	4.47	0.52	high
3	User demand and satisfaction	4.73	0.46	highest	4.80	0.41	highest
4	Promotion and incentive strategies	4.80	0.41	highest	4.87	0.35	highest
5	Academic seminars and resource sharing	4.87	0.35	highest	4.73	0.46	highest
6	Technical support and infrastructure	4.53	0.52	highest	4.73	0.46	highest
	Total	4.76	0.20	highest	4.70	0.18	highest

According to Table 4.17, the data show that the overall expert evaluation of the suitability and feasibility of the strategies for Supporting Intention to use is at the highest level ($\overline{X}$=4.76, $\overline{X}$=4.70), indicating the highest suitability and feasibility of the

strategies. The suitability of digital resource management for staff in Guangxi universities is at the highest level ($\bar{X}$=4.76), with a standard deviation of 0.20, and the value of the overall standard deviation is small, with a small average deviation. In relation to the work to be carried out in this study, the levels from highest to lowest are as follows: The highest level is “Academic seminars and resource sharing” ($\bar{X}$=4.87), followed by “The importance and use of digital resource” “Optimisation of digital resource management and services” and “Promotion and incentive strategies” ($\bar{X}$=4.80), and the lowest level is “Technical support and infrastructure” ($\bar{X}$=4.53).

The feasibility of digital resource management for staff in Guangxi universities is at the highest level ($\bar{X}$=4.70), with a standard deviation of 0.18, and the value of the overall standard deviation is small, with a small average deviation. In relation to the work to be carried out in this study, the levels from highest to lowest are as follows: The highest level is “Promotion and incentive strategies” ($\bar{X}$=4.87), followed by “User demand and satisfaction” ($\bar{X}$=4.80), and the lowest level is “Optimisation of digital resource management and services” ($\bar{X}$=4.47).

Table 4.18 Suitability and Feasibility of Strategies to Enhancing User satisfaction

(N = 15)

	Enhancing User satisfaction	Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
1	User experience and satisfaction	4.73	0.46	highest	4.73	0.46	highest
2	User interface design and optimisation	4.67	0.49	highest	4.80	0.41	highest
3	Teaching and research support	4.93	0.26	highest	4.80	0.41	highest
4	Data analysis and decision-making support	4.53	0.52	highest	4.87	0.35	highest
5	Information retrieval and service quality	4.60	0.51	highest	4.67	0.49	highest
6	User training and education	4.80	0.41	highest	4.47	0.52	high
	Total	**4.71**	**0.19**	**highest**	**4.72**	**0.22**	**highest**

According to Table 4.18, the data show that the overall expert evaluation of the suitability and feasibility of the strategies for Enhancing User satisfaction is at the highest level ($\overline{X}$=4.71, $\overline{X}$=4.72), indicating the highest suitability and feasibility of the strategies. The suitability of digital resource management for staff in Guangxi universities is at the highest level ($\overline{X}$=4.71), with a standard deviation of 0.19, and the value of the overall standard deviation is small, with a small average deviation. In relation to the work to be carried out in this study, the levels from highest to lowest are as follows: The highest level is "Teaching and research support" ($\overline{X}$=4.93), followed by "User training and education" ($\overline{X}$=4.80), and the lowest level is "Data analysis and decision-making support" ($\overline{X}$=4.53).

The feasibility of digital resource management for staff in Guangxi universities is at the highest level ($\overline{X}$=4.72), with a standard deviation of 0.22, and the value of the overall standard deviation is small, with a small average deviation. In relation to the work to be carried out in this study, the levels from highest to lowest are as follows: The highest level is "Data analysis and decision-making support" ($\overline{X}$=4.87), followed by "User interface design and optimisation" and "Teaching and research support" ($\overline{X}$=4.80), and the lowest level is "User training and education" ($\overline{X}$=4.47).

Table 4.19 Suitability and Feasibility of Strategies to Supporting Individual benefit

(N = 15)

	Supporting Individual benefit	Suitability			Feasibility		
		$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level
1	Quality and quantity of digital resources	4.80	0.41	highest	4.73	0.46	highest
2	Optimisation of service processes	4.60	0.51	highest	4.67	0.49	highest
3	Training and skills enhancement Regularly	4.73	0.46	highest	4.87	0.35	highest
4	Academic research and exchanges	4.67	0.49	highest	4.93	0.26	highest
5	Specific user Group Needs Provide customised	4.73	0.46	highest	4.67	0.49	highest
6	User services and experience	4.80	0.41	highest	4.60	0.51	highest
	Total	4.72	0.26	highest	4.74	0.17	highest

According to Table 4.19, the data show that the overall expert evaluation of the suitability and feasibility of the strategies for Supporting Individual benefit is at the highest level ($\overline{X}$=4.72, $\overline{X}$=4.74), indicating the highest suitability and feasibility of the strategies. The suitability of digital resource management for staff in Guangxi universities is at the highest level ($\overline{X}$=4.72), with a standard deviation of 0.26, and the value of the overall standard deviation is small, with a small average deviation. In relation to the work to be carried out in this study, the levels from highest to lowest are as follows: The highest level is “Quality and quantity of digital resources” and “User services and experience” ($\overline{X}$=4.80), followed by “Training and skills enhancement Regularly” and “Specific user Group Needs Provide customised” ($\overline{X}$=4.73), and the lowest level is “Optimisation of service processes” ($\overline{X}$=4.60).

The feasibility of digital resource management for staff in Guangxi universities is at the highest level ($\overline{X}$=4.74), with a standard deviation of 0.17, and the value of the overall standard deviation is small, with a small average deviation. In relation to the work to be carried out in this study, the levels from highest to lowest are as follows: The highest level is “Academic research and exchanges” ($\overline{X}$=4.93), followed by “Training and skills enhancement Regularly” ($\overline{X}$=4.87), and the lowest level is “User services and experience” ($\overline{X}$=4.60).

Chapter 5
Conclusion Discussion and Recommendations

The research in the digital resource management for staff in Guangxi universitiesin. The objectives of this research were 1) To study the current situation of digital resource management for staff in Guangxi universities, 2) To provide the strategies of digital resource management for staff in Guangxi universities, and 3) to evaluate the Suitability and feasibility of digital resource management for staff in Guangxi universitieswere including 6 following aspects: 1) System quality, 2) Information quality, 3) Information servise quality, 4) Intention to use, 5) User satisfaction, 6) Individual benefit. The sample group in this research were 20 staffs administrators in undergraduate universities in Guangxi. The research instruments were documents analysis, questionnaire, and structured interview. The statistic to analyze the data were percentage, average value, and standard deviation. The conclusion, discussion and recommendations of this research are as follows:

Conclusion

The research in digital resource management for staff in Guangxi universities. The researcher summarizes the conclusion into 3 parts, details as follows:

Part 1: the current situation of digital resource management for staff in Guangxi universities

Part 2: the strategies for digital resource management for staff in Guangxi universities

Part 3: the Suitability and feasibility of digital resource management for staff in Guangxi universities

Part 1: the current situation of digital resource management for staff in Guangxi universities

The current situation of digital resource management in six aspects was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was system quality, followed by information quality, and user satisfaction was the lowest level.

System quality was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was Staff uses the library digital resource system to download speed, followed by Staff responds quickly to operations using the library's digital resource system, and Staff can use mobile devices compatibility to access the library digital resource system platform was the lowest level.

Information quality was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was Staff using the digital resources of the library have their own built-in databases., followed by Staff using information on library digital resources is comprehensive, and Staff using utilized in the digital resources of the library continuously update and expand .and Staff using the papers and journals in the digital resources of the library are of high quality was the lowest level.

Information servise quality was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was Staff using the library's digital resources can get subject librarianship services available, followed by Staff can get multilingual service functionalities from the digital library, and Staff enhances the academic research and efficiency by using he university library's information service. was the lowest level.

Intention to use was at high level .Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was Staff's expectations and requirements can be fulfilled aligns with by the digital library system, followed by Staff's expectations and requirements can be fulfilled aligns with by the digital library system, and Staff frequently use the digital library's information retrieval feature was the lowest level.

User satisfaction was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was

Staff believes the information quality in the digital library is high, followed by Staff finds the user interface of the digital library clear and aesthetically pleasing, and Staff believes the digital library makes research and work more efficient was the lowest level.

Individual benefit was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was Staff believe courses or tutorials provided by the digital library are very helpful, followed by Staff believe the digital library facilitates their academic research, and Staff believe the digital library promotes self-directed learning was the lowest level.

Part 2: the strategies for digital resource management for staff in Guangxi universities

The strategies for provided the digital resource management for staff in Guangxi universitiesin six aspects, which contain 36 measures. There are 6 measures for System quality, 6 measures for Information quality, 6 measures for Information servise quality, 6 measures for Intention to use, 6 measures for User satisfaction and 6 measures for Individual benefit.

System quality consisted of 6 strategies, as follows:

1. System performance optimization and upgrading
2. User experience and interface improvement
3. Library digital resource management and platform optimization
4. Advanced Search Functionality and Academic Research
5. Digital Resources Procurement and Cooperation
6. Network security and protection

Information quality consisted of 6 strategies, as follows:

1. Information quality and data review
2. Updating and Expansion of Library Digital Resources
3. Improvement and optimization of self-built databases
4. User experience and service improvement
5. Technological aspects and innovations
6. System performance and stability

Information servise quality consisted of 6 strategies, as follows:

1. Library subject services
2. Multi-language services
3. Difficulty resolution and user support
4. International cooperation and services
5. Technology tools and innovative applications
6. User research and feedback

Intention to use consisted of 6 strategies, as follows:

1. The importance and use of digital resource
2. Optimisation of digital resource management and services
3. User demand and satisfaction
4. Promotion and incentive strategies
5. Academic seminars and resource sharing
6. Technical support and infrastructure

User satisfaction consisted of 6 strategies, as follows:

1. User experience and satisfaction
2. User interface design and optimisation
3. Teaching and research support
4. Data analysis and decision-making support
5. Information retrieval and service quality
6. User training and education

Individual benefit consisted of 6 strategies, as follows:

1. Quality and quantity of digital resources
2. Optimisation of service processes
3. Training and skills enhancement Regularly
4. Academic research and exchanges
5. Specific user Group Needs Provide customised
6. User services and experience

Part 3: the Suitability and feasibility of digital resource management for staff in Guangxi universities

The Suitability and feasibility of digital resource management for staff in Guangxi universities in six aspects were at highest level with the values between 4.00 and 5.00, which means the digital resource management for staff in Guangxi universitiesare Suitability and feasibility.

The Suitability and feasibility of System quality was at highest level.

The Suitability and feasibility of information quality was at highest level.

The Suitability and feasibility of information servise quality was at highest level.

The Suitability and feasibility of intention to use was at highest level.

The Suitability and feasibility of user satisfaction was at highest level.

The Suitability and feasibility of individual benefit was at highest level.

Discussion

The research in digital resource management for staff in Guangxi universities. The researcher summarizes the conclusion into 3 parts, details as follows:

Part 1: the current situation of digital resource management for staff in Guangxi universities

Part 2: the strategies for digital resource management for staff in Guangxi universities

Part 3: the Suitability and feasibility of digital resource management for staff in Guangxi universities

Part 1: the current situation of digital resource management for staff in Guangxi universities

The current situation of digital resource management in six aspects was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was system quality, followed by information quality, and user satisfaction was the lowest level. The related to the research of Du Huiping (2015, 30-33) introduced the D&M information system success model and its evolution process, and compared and analysed the different versions. The application of the model in the field of digital libraries is mainly achieved by

expanding the model's independent variables and incorporating new mediating variables, and verifying the effects of user subjective factors and digital library object factors on the utilisation benefits through the structural equation modelling method. The establishment of the success model of the specific application system of digital libraries provides a theoretical basis for the improvement of services and the efficiency of digital libraries. Fei Xinyi et al (2018, p.161-171) in order to understand the progress of the applied research on the success model of D&M information system, and to summarise the deficiencies of the current research from it, so as to provide references for the direction of future in-depth research and application. [Methods/Procedures] We select representative empirical research literature based on the D&M model at home and abroad, summarise how the model is applied in practice, discuss the results of the research in different categories, and discuss the problems in the application of the model as well as the research directions that deserve attention in the future. [Results/Conclusions] It is found that the current application of the D&M model mainly focuses on four aspects, namely, the net benefits of information systems, factors affecting the success of systems, user-related problems, and the practice of system design and optimisation. The main problems in the research focus on the adjustment of the model structure and the interpretation of the variables in the practice environment, the horizontal comparison between information systems with differences, and the practice-oriented application is relatively small, and the existence of these problems also provides a worthwhile reference direction for future research. Wang Wentao et al (2014, p.73-76) the article explains the background and theoretical foundation of the initial D&M model in 1992, and discusses in detail the progress of the evolution of the D&M model during 1992-2003, as well as the modification proposals put forward by scholars to address the problems of the D&M model. The new D&M model proposed in 2003 is compared with the initial model, and the revised D&M model is examined in the hope of helping users to understand the variables affecting the success of information systems and to improve the efficiency of information systems.

1. system quality was at high level. This is because Modern educational theory considers digital teaching and learning environments to be an important part of educational modernisation. Therefore, Guangxi universities may focus on building high-quality digital resource management systems to support teaching, research and

academic communication based on this theoretical framework. Research has shown that investing more resources and technologies, such as hardware renewal, software upgrading and network optimisation, can significantly improve the quality and performance of digital resource systems. Government departments may have introduced relevant policies to encourage universities to invest more in the construction of digital education infrastructure in order to improve the standard of education and the quality of service. Related to Lina Dai (2022, p.28-30) under the traditional platform construction, libraries have made many attempts in resource construction, such as institutional knowledge base construction, various types of readers' decision-making procurement, electronic resource procurement, data resource construction, etc. However, it is difficult to relate different types of resources, resulting in many resource information islands, which makes the library's economic and social benefits low, and the readers' satisfaction with the library decreases, and it is constantly being marginalised. Based on the above reasons, in 2009, library colleagues in order to change the situation of libraries, recognising the need to reorganize the library business, in order to avoid blind, follow the trend of construction, and launch a study of the library platform. In recent years, with the development of computer technology, network technology and user image technology, the next generation of library platform construction has developed rapidly, and has become an important driver to promote the construction of library undertakings. Kang Qi et al (2020, 49-54) in the New Media Consortium Horizon Report 2017 (Libraries) in the United States, January 2017 mentions that among the six major technologies affecting the development of libraries, including the Internet of Things, big data, digital technology, artificial intelligence, online authentication, and library service platforms, the latter five are mentioned for the first time and predicts that 2019 will see widespread adoption of library service platforms. In terms of the current status of library collection resources, with the proliferation of digital resources, such as e-books (E-books), web resources, open access resources (Open Access), institutional knowledge repositories (Institutional Reproprity, IR), scientific data, user-generated content (UGC), etc., the percentage of library funds used to purchase electronic resources has dramatically Rising, digital resources are gradually replacing print resources as the main body of the collection; in terms of library services, libraries to provide users with simple, easy to use, fast and convenient

services has become a major trend, instant search, one-stop search services to replace the previous readers of the query method. Library service platform, is the original dispersed solutions merged, including the original automated integrated system ILS, link server SFX, resource discovery and other seamless integration of paper resources and digital resources unified management, from the interview, cataloguing, retrieval of the whole process of management and the provision of these services, the selection of resources, print resource management, electronic resource management, digital asset management, meta-data management, links, solutions, resource discovery integrated in the same system. solutions, and resource discovery in the same system. Kay Xu (2021, p.64-66) the mobile Internet has boomed with the popularity of smartphones and other smart devices. According to Tencent's financial report, the combined monthly active accounts of WeChat and Weixin launched by the company reached 963 million. It can be said that almost everyone who uses a mobile phone has WeChat installed on their phone and uses it regularly. WeChat has become part of people's daily work and life. More and more enterprises and institutions, also through WeChat to provide all kinds of services for its users. At present, domestic libraries, especially provincial and municipal public libraries and university libraries have basically opened WeChat public number, mainly providing readers with information push, loan management, book query, interactive communication and other functions. Most of these public numbers are mainly subscription numbers, and many libraries, such as the National Library, the Capital Library, Shanghai Library, Shenzhen Library, etc., have opened both subscription numbers and service numbers. At the same time, there are also many libraries that have developed APP and websites to provide services for readers. The opening of these channels has greatly facilitated readers and made a greater contribution to the promotion of digital libraries.

2. Information quality was at high level. This is because The richness and diversity of digital resources can effectively support teaching, learning and research activities and facilitate the creation and dissemination of knowledge. Universities should focus on providing digital resources that are rich and diverse, with high-quality content. Universities are encouraged to improve the quality and quantity of digital resources to meet educational teaching and research needs. Related to Zhong Yihuan (2020, p.81-83) in April 2016, General Secretary Xi Jinping pointed out in the

symposium on net information work that "we should promote the modernisation of the national governance system and governance capacity with informatisation, coordinate the development of e-government, and Build an integrated online service platform, and promote the construction of new smart cities in a graded and classified manner." To this day, smart city construction has become part of city construction. Colleges and universities, as an important intellectual component of the city, the smart campus has also become a trend in the development of college campuses. Library as an important symbol of the overall level of colleges and universities, intelligent construction has also become an inevitable road. Wang Chan (2016, p.400) digital library information resources mainly refers to digital information resources, it is through the digital processing of information, and then through the network for release, access and application, this kind of digital information resources need users to obtain information with the help of specific platforms, such as through information databases and so on. Digital library information resources can be divided into many types of forms according to different classification standards, and can be divided into real resources and virtual resources by storage form, and can be divided into e-books, e-newspapers, e-journals and so on by content expression, and can be divided into introduced and self-built by the way of obtaining information resources. With the traditional library service model of network upgrading, information resources in the form of hardware carriers are a large number of digital process there are many information quality levels, which affects more factors, and the level of quality of library information resources has a direct impact on the effectiveness of the service, so focus on the quality of library information resources to enhance information services is an important issue in front of the current library managers. Xue Danyang (2023, p.131-132) digital information resources are the foundation of digital library collection construction, which is the top priority. Constructing digital library collections is the process of reorganising and reconstructing information resources in a digital state. Libraries need to classify, organise and integrate a large number of information resources in order to achieve unified retrieval, management and authentication of information resources. After the information resources enter the library, the key factors affecting the quality of information resources are different at each stage. In the process of digital library information resource construction, the quality of information resources is an important aspect that affects the construction

of information resources. For the acquisition, processing and storage phases of digital library information resources, the study of factors affecting the quality of digital library information resources hopes to draw the attention of the library community to the construction of high-quality digital collections and to improve the overall level of service of digital libraries.

3. Information servise quality was at high level. This is because Modern education management theory emphasises service orientation and user satisfaction, and the quality of digital resource services directly affects user experience and learning effects, encouraging universities to establish a sound information service system, strengthen service quality management, and enhance user satisfaction and experience. High-quality information services can enhance user satisfaction and loyalty, and attach importance to providing efficient, convenient and personalised information services. Related to the concept of Mao Weiwei (2023, p.80-82) researches on the new trend of library information service in the network era, describes the impact of the network era on library information service, and introduces the characteristics and principles of library information service in the network era, on the basis of which it explains the new trend of library information service in the network era, and provides references to libraries in the network era to find a new direction for the development of information service and to improve the quality of information service through the research. The study provides reference for libraries to find the new direction of information service development and improve the quality of information service in the network era. Nowadays, libraries have popularised the computer network information retrieval technology and provide readers with more convenient services with the help of this technology. With the continuous development and improvement of network information retrieval technology, it has gradually played an increasingly important value in the process of library services, and has become a major trend in the development of libraries, so it can be seen that the network information technology means by virtue of its own powerful advantages has formed an environment where knowledge and information are transmitted freely without boundaries, and the readers can make use of powerful search tools to carry out CD-ROM searches and online searches and search for news in the network world at any time and any place. Readers can use powerful search tools to conduct CD-ROM search and online search, and search for news and

information in the network world anytime and anywhere to maximise the absorption of knowledge. Peiqi Han (2023, p.109-111) as the main position for storing literature and information materials, libraries can provide readers with a comfortable reading environment and rich book resources, and are the main places to improve people's comprehensive literacy and provide convenience for people to browse information. Influenced by modern information technology, the positioning, function and management of libraries have undergone radical changes, and libraries have gradually evolved into cultural bases integrating information dissemination, knowledge popularisation, recreation and other diversified functions. In order to improve the level and quality of library services, we need to regulate the library circulation management mode, which requires the circulation department to target the innovation of library information service mode. At the present stage, the library circulation information service still faces many problems, the circulation department should start from the actual situation, according to the library's functional requirements to formulate the information service quality optimisation strategy, in order to give full play to the library for readers to provide high-quality literature and information resources.Li Zichen (2023, p.109-111) digital library is an important direction for the development of libraries in the new period. In order to better keep pace with the times and provide readers with quality services, libraries should constantly carry out in-depth personalised information services. Libraries need to explore new service modes and create a personalised information service platform to avoid spending too much time when readers search for information resources. At the same time, libraries can also conduct dynamic tracking of readers' search records to improve the utilisation of library resources, thus effectively improving the level of service. Personalised service is to provide readers with customised services, which can improve service quality and achieve the innovation and development of digital libraries. Now we briefly discuss the status quo and existing problems of personalised information services in digital libraries, explore the path of personalised services in digital libraries, and hope to provide reference for the construction of digital libraries.

4. Intention to use was at high level. This is because Users' intention to use is affected by perceived usefulness and perceived ease of use, the quality of digital resources and the quality of service directly affects users' intention to use, improving the quality of digital resources and the level of service can enhance users' intention

to use and active participation, encouraging colleges and universities to improve the quality of digital resources and the level of service, in order to enhance the user's intention to use and the degree of participation. Related to the concept of Suling Duan (2023, p.44-49) traditional Q&A methods can no longer meet the changing needs of readers. Based on this, the article proposes a deep learning method for intelligent Q&A in libraries based on readers' intentions. The method firstly identifies the reader's intention and discovers the background and focus of the questions asked by the readers, secondly calculates the similarity of the readers' questions to find out the most relevant questions from the FAQ database, and finally generates the answer sentences using the CPT model that incorporates the reader's intention. Experiments are conducted on the existing dataset, and the results show that incorporating readers' intention in the library Q&A method has a facilitating effect on answer generation. Li Aiming (2015, p.68-71) aiming at the semantic bias and retrieval topic shift problems existing in current query expansion methods, a query expansion method based on ontology and user query intent is proposed. The method uses ontology to provide semantic knowledge to solve the semantic bias and ambiguity problems in the query expansion process, and combines the user query intent to carry out the secondary screening of the initial query expansion concept set to avoid the retrieval topic shift problem in the query expansion process. The experimental results show that the method achieves the desired effect, which not only can effectively improve the retrieval performance, but also can avoid the problem of query topic shift. Zhou Zhicheng (2011, p.116-119) the user-based collaborative filtering is more suitable for university libraries in the application of information recommendation due to the comprehensive user background and resource characteristics. A user intent clustering method is proposed to reduce the performance of the recommendation system due to the increase in the space of digital resources in the collection and the problem of data sparsity. By using the K-m eans algorithm, we cluster the users with similar intent eigenvalues of resource categories to improve the real-time recommendation and reduce the impact of data sparsity on information recommendation. The experimental results show that the collaborative filtering algorithm based on user intent clustering can effectively improve the recommendation quality.

5. User satisfaction was at high level. This is because User satisfaction is an important indicator of service quality and effectiveness, and the quality and service level of digital resources directly affects user satisfaction. Improving the quality and service level of digital resources can enhance user satisfaction and loyalty. Universities are encouraged to establish a sound user feedback mechanism to actively improve service quality and enhance user satisfaction and experience. Related to the concept of Feng Na (2017, p.141-143) taking the library of Henan University of Science and Technology Kaiyuan Campus as an example, the reader satisfaction of college libraries was studied by using fuzzy comprehensive evaluation theory. Through designing a questionnaire for investigation and analysis, the data of readers' satisfaction with the library were collected, and then an appropriate index system was selected to establish a reader satisfaction model for college libraries based on fuzzy comprehensive evaluation, and the results of the model showed that there is a certain space for improvement of readers' satisfaction, and suggestions for improving readers' satisfaction were given. Liao Changmin (2018, p,100-104) in response to the status quo of fewer studies on reader satisfaction surveys in university libraries, taking the library of Xihua Normal University as an example, a questionnaire was designed based on the improved Lib QUAL+ model for student readers of different genders, majors and academic qualifications, and the data collected by the survey were further statistically analysed. The results show that the library exceeds the minimum acceptable reader satisfaction score in the 25 evaluation indexes of service effect, information control and environmental facilities, but there is still a gap with the ideal reader satisfaction score in the readers' mind. The results of the study can provide a reference for the future construction and development of other college libraries. Han Xiao (2019, p.56-60) the article intends to select potential variables, establish measurable variables and structural relationships, and establish a reader satisfaction index model for college libraries. Taking a university library in Xi'an as the research object, the reasonableness of the constructed reader satisfaction index model of university libraries is examined. Prepare a questionnaire, take the reliability and validity analysis, deal with the missing data of the data sample, and test the model effect and parameter estimation. Improving the perceived value and perceived quality can get better reader satisfaction value.

6. Individual benefit was at high level. This is because Personal interest is an important factor driving individual behaviour. Improving the quality and service level of digital resources can satisfy the personal needs and interests of users, and the provision of high-quality digital resources and personalised services can attract users to actively participate and satisfy their personal needs and interests. Universities are encouraged to improve the quality and service level of digital resources to meet the personal needs and interests of users. Related to the concept of Zhou Wenjie (2017, p.47-56) based on the user-centred perspective, the article analyzes the functions of the public library system in achieving individual information enrichment, participating in educational activities and promoting individual learning from the theoretical level. In terms of realising individual information enrichment, the theory of personal information world provides a holistic perspective, tools and evidence for understanding the phenomenon of information rich-poor differentiation, thus providing a basis for explaining the rationality of public libraries as an institutional arrangement for promoting individual information enrichment. In terms of participation in educational activities, the public library system responds to the essence of education, provides conditions for lifelong learning, internalises culture, offers possibilities for open education and provides important hidden curriculum resources for learners. As far as promoting individual learning is concerned, schools of learning theory such as behaviourism and cognitive school have provided explanations for the psychological mechanism of promoting individual learning in the library profession from different perspectives. Interpreting the functions of the public library system based on the user-centred perspective will provide important insights for the public library system to clarify its status and value and to design a reasonable development path. Zhang Cong and He Jianfeng (2017, p.108-112) based on the matching theory and the theory of technology adoption behavior to construct a theoretical model of the influence of mobile library users' intention to use behavior, to explore the matching relationship between users' individual innovativeness and the new technology service of mobile library, in order to put forward the constructive suggestions to promote the mobile library, and to maximize the value of its investment. Xu Fang (2014, p.56-61) adopting the experimental research method, we analyse the influence of six individual difference factors, namely, educational background, gender, retrieval skills, retrieval experience, browsing skills and browsing

experience, on the evaluation of digital library users' interactive experience, and we find that: different users' individual difference factors have different influences on the evaluation of different digital library interactive experiences; the same individual difference factors have different influences on the evaluation of different digital library interactive experiences; the same individual difference factors have different influences on the evaluation of different digital library interactive experiences; and the same individual difference factors have different influences on the evaluation of different digital library interactive experiences. experience evaluation; different user individual difference factors have different impacts on different digital library interaction experience evaluation measurement indexes; digital libraries should focus on the measurement indexes of interaction experience evaluation when designing.

Part 2: the strategies for digital resource management for staff in Guangxi universities

Digital Resource Management Strategies for Staff in Guangxi Universities they include: 1) System quality, 2) Information quality, 3) Information servise quality, 4) Intention to use, 5) User satisfaction, 6) Individual benefit. The DeLone and McLean Model of Information Systems Success. DeLone, W. H., & McLean, E. R. (1992) the researcher provided the digital resource management for staff in Guangxi universities in six aspects, which contain 36measures. There are 6 measures for System quality, 6 measures for Information quality, 6 measures for Information servise quality, 6 measures for Intention to use, 6 measures for User satisfaction and 6 measures for Individual benefit.

1. System quality, refers to the technical attributes of the information system, such as performance, usability, and reliability. It focuses on the characteristics of the software application itself. The library's digital resources system is convenience for staff, underpinned by its stability. It boasts of responding quickly to operations, ensuring a seamless experience. Unrestrained by time, it offers 24-hour access and is accessible on-the-go thanks to mobile compatibility. Its instant user interface updates ensure constant relevance, while its design emphasizes efficiency and facilitates easy task completion. The system stands out for its ability to tap into various types of resources and search across multiple databases. Above all, it guarantees information and data safety, all while ensuring rapid download speeds.

1)System performance optimization and upgrading, In recent years, with the development of computer technology, network technology and user image technology, the next generation of library platform construction has developed rapidly, and has become an important driver to promote the construction of library undertakings (Lina Dai, 2022, p.28-30). 2)User experience and interface improvement, Big data platform through the library collection of book information, membership data and circulation data collection, analysis to achieve the regularity of information, can provide reference data for library decision-making, and on this basis, the correlation between the data for in-depth analysis. At the same time, through the platform IT intelligent monitoring system to achieve effective management and monitoring of the library terminal equipment, can improve the efficiency of the operation and maintenance of the library venues, so that readers get a better user experience. In the library service mode, the existing service system is mainly for the physical collection and electronic resources database for single-dimensional integration, lack of readers' information, collection information and various types of service information resources for multi-dimensional data analysis. In the latest functions undertaken by libraries, such as assisting government decision-making and rebuilding the entrepreneurial environment, it is necessary to obtain and make use of all kinds of information contained in libraries, such as wireless webpage access time, data traffic, and the use of WeChat terminals in libraries, and other data. The construction of big data platform can lay a solid foundation for the construction of library system (Rongguang, 2020, p.15-18). 3) Library digital resource management and platform optimization, discuss the two aspects of the system architecture and functions respectively, to create a more scientific cross-platform resource collaboration system to maximise the utilisation of library resources. The system architecture and functions are discussed to create a more scientific cross-platform resource collaboration system to maximise the utilisation of library resources. library digital resource management, hardware and software upgrade plan, system performance monitoring, platform function optimization update (Zhang Tian, 2022). 4) Advanced Search Functionality and Academic Research, With the development and application of technologies such as Internet of Things, Big Data, Cloud Computing and Artificial Intelligence, the library's resource construction and service methods have undergone great changes, and the focus of the work has shifted from digital

construction to intelligent and intelligent construction, and as the core of the library's business and service operation, the traditional library integration system has exposed obvious deficiencies. How to build a new generation of library management system that is service-oriented, supports comprehensive perception, extensive interconnection and intelligent decision-making, and meets the needs of continuous innovation and development of libraries, provides integrated management of paper and electricity for resources, ubiquitous personalised and intelligent services for users, and data analysis and decision-making references for administrators, so as to better support the construction of intelligent libraries, which has become a research hotspot of the current library field (Dong Jingxiang & Qu Hongjun, 2021, p.51-57). 5) Digital Resources Procurement and Cooperation. Analyse the problems and risks in the current procurement of digital resources by university libraries, and put forward optimisation strategies such as strengthening the organisational management of the group's procurement alliance, enhancing the evaluation of resources, adopting a more reasonable price grading model, and establishing a long-term preservation mechanism for the resources introduced by the group, in view of the problems in procurement (Tan Mingjun, 2016). 6) Network security and protection (Wang Yu et al., 2023) Under the background of digital transformation of the education industry, the information technology construction and network security guarantee work of colleges and universities are facing new requirements, new scenarios, new challenges and new opportunities. Combined with the characteristics of the industry and the actual work, in order to meet the needs of digital transformation and protect the network security and data security of colleges and universities, we analyse and put forward the key points, difficulties and coping strategies of the network security work of colleges and universities, from the establishment of the network security management system, the implementation of the information asset filing system, the construction of the network security system of in-depth defence and the system of monitoring and disposal of threats, the formation of the network security emergency response team, and the enhancement of network security education and so on. aspects to elaborate the practical initiatives of network security protection work in colleges and universities.

2. Information quality refers to the quality of the information that the system produces. Factors here include relevance, understandability, accuracy, and

timeliness of the information. In the modern digital landscape, libraries used by staff prioritize Prompt Updates to ensure their resources remain current. One of the hallmarks of these digital assets is their Accuracy and Comprehensiveness. Backed by High-quality Publications, the content guarantees Extensive Coverage across subjects, with the advantage of Continuous Expansion. These resources are fortified by Built-in Databases which accentuate their Helpfulness. What sets them apart is their Distinct Content which, when searched, yields Relevant Search Results. Additionally, the incorporation of diverse Multimedia Content like videos and audios enriches the user experience, making research both comprehensive and engaging. consisted of 6 strategies. 1) Information quality and data review, With the traditional library service model of network upgrading, information resources in the form of hardware carriers are a large number of digital process there are many information quality levels, which affects more factors, and the level of quality of library information resources has a direct impact on the effectiveness of the service, so focus on the quality of library information resources to enhance information services is an important issue in front of the current library managers (Wang Chan, 2016, p.400). 2). Updating and Expansion of Library Digital Resources, Digital information resources are the foundation of digital library collection construction, which is the top priority. Constructing digital library collections is the process of reorganising and reconstructing information resources in a digital state. Libraries need to classify, organise and integrate a large number of information resources in order to achieve unified retrieval, management and authentication of information resources. After the information resources enter the library, the key factors affecting the quality of information resources are different at each stage. In the process of digital library information resource construction, the quality of information resources is an important aspect that affects the construction of information resources. For the acquisition, processing and storage phases of digital library information resources, the study of factors affecting the quality of digital library information resources hopes to draw the attention of the library community to the construction of high-quality digital collections and to improve the overall level of service of digital libraries (Xue Danyang, 2023, p.131-132). 3).Improvement and optimization of self-built databases, Libraries are the centre of literature and information resources, and their purpose is to provide users with effective information resources and maximize the satisfaction of

users' information needs. The information resources collected by libraries are mainly divided into two types: paper resources and electronic resources. Traditional libraries mainly collect printed paper information resources, while taking into account the collection of network information resources. Evaluation of information resources is to analyse and evaluate the status, function and role of the information resource structure system. The information obtained through such analysis and evaluation can be used as a basis for information institutions to formulate development policies and provide objective basis for controlling the development process of information resources, so as to establish a highly effective information resource system and provide more effective information resource services. The evaluation standard of library collection information resources is to examine the development and utilisation of library information resources and the ability to meet users' information needs (Zhao Yingxing, 2018, p.166-167; Jing Xie, 2016, p.235-246). 4).User experience and service improvement, Information resources are the cornerstone of the development of libraries, without rich information resources, libraries can not meet people's needs for books, and also lose their own significance. The library is an important tool for the public to obtain books for reading, with the development of information technology, in order to make the library more convenient, in order to meet people's cultural needs, the digital library came into being. The rapid development of information technology, to all walks of life has brought the impact and change, the library is also so. In the information technology environment, the library service system has also undergone great changes. When the library into the digital and network, the form of its collection will also undergo many changes, such as the increase of electronic documents. In addition, under the support of the network, the library service function is further expanded, no longer subject to the constraints of time and space, people can enjoy the library at any time and any place to bring a convenient way to read. A major criterion for evaluating the quality of digital library services is the quality of the information resources it provides, therefore, it is very important to study the factors affecting the quality of digital library information resources (Zhao Yingxing, 2018, p.166-167). 5). Technological aspects and innovations, Digital resources have become one of the main manifestations of library literature resources. It organically integrates multimedia, computer, information and communication and other technologies to generate a

digital form of release, storage, use and innovation of the sum of many information resources. Digital resources carry a rich and colourful information and documentary resources, including voice, text, symbols, numbers, images, videos, etc., which in turn enrich the extension and connotation of digital resources (Ruili Zhang, 2021, p.1-3). 6). System performance and stability, With the development of society and the progress of science and technology, the era of big data led by cutting-edge technologies such as computers, the Internet, cloud computing and so on has arrived, which has had a profound impact on people's production and life, and has provided many convenient information service experiences. The allocation of educational resources in colleges and universities itself as a process of information integration, processing and handling, big data applications, which provides new ideas and methods, and has had a positive impact (Liu Chen, 2020, p.172-173).

3. Information servise quality refers to the support provided to users of the system. This could come from a help desk, training sessions, or any other form of user assistance. The university library's digital services significantly enhance academic research and efficiency for staff. They offer vital training, guidance, and specialized academic guidance through subject librarianship services. When navigating these digital resources, staff benefit from a swift response from customer service, and any issues they face are addressed with precision. The library ensures multilingual services and personalized recommendations. It also emphasizes long-term resource storage, preservation, and the introduction of convenient new features. Additionally, the library values feedback, addressing staff's opinions effectively. Tutorials and guides further aid staff in their use of these resources. consisted of 6 strategies. 1) Library subject services, proposing the development of a team of subject specialists, customized resource recommendations and service packages, and the establishment of resource libraries synchronized with the teaching and learning progress of subjects. constructs a platform service system, and realises knowledge services such as literature, consultation, training, competitive intelligence, etc. by creating a targeted discipline information service platform to satisfy the decision-making reference needs of scientific research, scientific research management and development planning. In this way, we can innovate the discipline information service mode and improve the quality of discipline services in university libraries (Genius Xu et al., 2023). 2) Multi-language services, utilizing machine translation and

other technological tools to enhance multi-language service capabilities, breaking down language barriers and providing multi-language support. extensive interconnection and intelligent decision-making, and meets the needs of continuous innovation and development of libraries, provides integrated management of paper and electricity for resources, ubiquitous personalised and intelligent services for users, and data analysis and decision-making references for administrators, so as to better support the construction of intelligent libraries, which has become a research hotspot of the current library field (Dong Jingxiang & Qu Hongjun, 2021, p.51-57) 3) Difficulty resolution and user support, establishment of demand response system, problem tracking system, research support group, etc. to provide timely and effective help. the "next-generation library service platform" called a variety of forms, such as: "library service platform" with the continuous development of information technology and digital resources, library automation integrated management system (ILS) in handling the daily work of the library. With the continuous development of information technology and digital resources, the Integrated Library Automation Management System (ILS) has become obviously insufficient in dealing with the daily work of libraries, especially the unified management and retrieval of digital resources and paper resources. In order to realise the sharing and unified management of resources and to meet the information needs of users, the Library has actively cooperated with system providers to propose and implement the "Next Generation Library Service Platform" (Kang Qi et al., 2020, 49-54) 4) International cooperation and services, strengthen cooperation with international universities, share high-quality digital resources, and enhance the international level of disciplinary services. The International Cooperation Programme for University Digital Libraries started in 2002, and after more than ten years of construction and development, it has become the leader of digital libraries in Chinese higher education institutions. This article introduces the development of the programme since its inception, analyses the main features of the programme's services and resources, and introduces the application service system based on the programme's resources, including the library service platform (PanJing, 2013). 5) Technology tools and innovative applications, utilizing advanced information technologies such as artificial intelligence, machine learning, natural language processing and speech recognition. With the continuous development of modern information technology, the library service has far exceeded

the traditional mode, which follows the development trend of information technology, constantly breaks through the boundaries of organisation, technology and geography, and develops in the direction of modernisation and intelligence at a high speed. Libraries are not only limited to traditional functions such as collection, storage and transmission, but also pay more attention to modern information management and intelligent reader services (Zhao Shuquan, 2023). 6) User research and feedback, development of an integrated service management strategy, based on actual user service data and feedback. in order to meet the readers' needs for multimedia learning and reading in all kinds of scenarios, it should review and plan its own content resources, strengthen the management of content resources, and improve the efficiency of utilisation. From the perspective of user demand, we solicit users' opinions, refine the key elements affecting the evaluation of the quality of digital educational resources, and construct a relatively scientific and reasonable preliminary evaluation model on the basis of empirical analyses. Finally, the evaluation indexes are tested for reliability and validity to ensure the usability of the quality assessment index system and to adapt to the evaluation of digital educational resources (Ma Xiaolan, 2022).

4. Intention to use refers to gauges user intention to use and the actual use of the system. Even if a system is of high quality, it won't be successful unless it's used effectively by its intended users. In the university's digital library setting, the Frequent Use of the retrieval feature signifies its pivotal role in aiding academic activities. The library proficiently Meets Needs, offering an Accurate Understanding of the staff's demands, and subsequently, Enhanced research Efficiency. Staff place their trust in its information Reliability and Accuracy, enjoying the Ease and Convenience it brings to achieving their objectives. Their Enjoyment using the resources often translates to Recommendations for peers. The library's adept Alignment with Expectations and its unwavering emphasis on Privacy and Peace of Mind foster a harmonious rapport between the staff and the library services. consisted of 6 strategies. 1)The importance and use of digital resources, the importance of digital resources in teaching, research and work, and the use of digital resources to improve the efficiency of work and the quality of research. constructed the cloud platform of remote information resource service with the aim of constructing a good basic platform of information resource and network service, and creating a remote resource service, information service and

knowledge service new mode - information resource service cloud platform, give full play to the remote service expertise, make it a good information resource base and network service base platform, maximally satisfy readers' personalised needs, and realise a socialised, intensive and professional information service mode, so as to adapt to the national The latest requirements of information construction, so that the whole academic communication environment of benign development, which will be the direction of efforts and development trend of university library work (Li Shujuan, 2023). 2) Optimisation of digital resource management and services, updating resources, improving search functions, and providing recommended resources and training courses. Big data technology can quickly obtain information in many kinds and large amounts of data. College libraries are the most concentrated place of industry data and information knowledge, carrying the responsibility of storage and dissemination of various types of scientific knowledge, which is the main direction of the construction of college library information service system. Under the background of big data, people-oriented, focusing on user experience and innovative service mode can really make a new leap in college library information service. Starting from the perspective of college libraries, the object of library information service, service concept and service mode are elaborated respectively, and innovative service strategies of college libraries in the information age are proposed, so as to continuously improve the quality of library services to help achieve the sustainable development of libraries (Zhang Xu Gear, 2022). 3)User demand and satisfaction, through research and feedback mechanism, to understand user demand, and provide personalised services and resources according to user demand. Digital library is an important direction for the development of libraries in the new period. In order to better keep pace with the times and provide readers with quality services, libraries should constantly carry out in-depth personalised information services. Libraries need to explore new service modes and create a personalised information service platform to avoid spending too much time when readers search for information resources. At the same time, libraries can also conduct dynamic tracking of readers' search records to improve the utilization of library resources, thus effectively improving the level of service. Personalised service is to provide readers with customized services, which can improve service quality and achieve the innovation and development of digital libraries (Li Zichen, 2023, p.109-111). 4) Promotion and incentive strategies, promote digital resources, through training,

seminars, website recommendations, incentive schemes, the use of digital resources into the staff development plan As the main position for storing literature and information materials, libraries can provide readers with a comfortable reading environment and rich book resources, and are the main places to improve people's comprehensive literacy and provide convenience for people to browse information. Influenced by modern information technology, the positioning, function and management of libraries have undergone radical changes, and libraries have gradually evolved into cultural bases integrating information dissemination, knowledge popularisation, recreation and other diversified functions (Peiqi Han, 2023, p.109-111). 5) Academic seminars and resource sharing, organising academic seminars and establishing a resource sharing platform, and reflecting the value of digital resources through the publication of research results. constructs a platform service system, and realises knowledge services such as literature, consultation, training, competitive intelligence, etc. by creating a targeted discipline information service platform to satisfy the decision-making reference needs of scientific research, scientific research management and development planning. In this way, we can innovate the discipline information service mode and improve the quality of discipline services in university libraries (Genius Xu et al., 2023). 6)Technical support and infrastructure, providing technical support and infrastructure roles, ensuring network stability, providing mobile access, and customising technical training. With the continuous development and improvement of network information retrieval technology, it has gradually played an increasingly important value in the process of library services, and has become a major trend in the development of libraries, so it can be seen that the network information technology means by virtue of its own powerful advantages has formed an environment where knowledge and information are transmitted freely without boundaries, and the readers can make use of powerful search tools to carry out CD-ROM searches and online searches and search for news in the network world at any time and any place. Readers can use powerful search tools to conduct CD-ROM search and online search, and search for news and information in the network world anytime and anywhere to maximise the absorption of knowledge (Mao Weiwei, 2023, p.80-82).

5. User satisfaction refers to the responses and attitudes of users towards the system. It gauges how well the system meets users' expectations and requirements. The staff expresses satisfaction with the overall user experience of the

digital library, appreciating its clear and aesthetically pleasing user interface. They commend the loading speed and the high service quality. The information quality is considered top-notch, and the range of resources, including e-books, papers, and audio-visual materials, is found to be sufficient. These resources enhance their research efficiency. Additionally, the library's technical support is deemed effective, and the library's proactive approach in frequently updating digital content is appreciated. Furthermore, its categorization and tagging system is straightforward, making it easy to understand and use. consisted of 6 strategies. 1)User experience and satisfaction, referring to the collection of user feedback, adjustment of management strategies and service processes. Nowadays, traditional libraries are facing the challenge of modern technology, and evaluating the demand degree of related technology from the perspective of user experience is an important basis for libraries to reasonably introduce and update modern technology (Zhang Wenxin et al., 2020, p.104-107). 2) User interface design and optimisation, clarity, aesthetics and ease of use of the user interface and interface design testing, improvement and personalisation settings (Dou Tianfang & Yang Hui, 2020, p.2-7) Library functions are constantly being given new connotations, but the protection of documentary resources is still the most important service function of libraries at present and in the foreseeable future. Therefore, exploring the literature resource protection path matching the information resource environment and optimising the literature resource protection service are still the basic skills that libraries should insist on doing well. Combined with the actual library of Tsinghua University, the current status of the library resource management and service and the construction of the integrated resource management platform are elaborated. The key issues in the process of platform construction are selected and analysed from the perspectives of construction ideas, processing principles, application effects, etc., hoping to provide useful reference for the construction and management of the domestic integrated resource management platform. 3) Teaching and research support, accuracy, authority and richness support of digital resources, and digital resource support for teaching and research. High-quality big data information output from colleges and universities can more quickly and accurately reflect the new needs of education, so as to complete the targeted output of a series of resources and improve the allocation efficiency. At the same time, the sharing of big data, so that students'

access to information channels are diversified, the only way for colleges and universities to improve the quality of information output and create a new type of classroom, in order to attract students to learn actively under the internal drive of interest, improve the utilisation rate of educational resources, reflecting the intrinsic value of its configuration. In this process, the construction of high-quality big data information is the key to improve the attractiveness of school educational resources has a significant (Liu Chen, 2020, p.172-173). 4) Data analysis and decision-making support, referring to customised data analysis reports and the establishment of decision support systems. Starting from the influencing factors of readers' satisfaction, the theoretical model of evaluation system is constructed, data are collected through questionnaire surveys, the validated factor analysis model is the main research method, and the evaluation system of readers' satisfaction in college libraries is constructed based on the fitting model of the correction indexes, and empirical analyses are carried out, and finally, rationalised suggestions are put forward to improve the quality of readers' service work from four aspects. It is hoped to provide the basis for scientific decision-making to improve the quality of reader service work (Kong Chao & Ding Xuan, 2014, p.60-64). 5)Information retrieval and service quality, optimise the information retrieval process and improve service quality, provide detailed help files, online tutorials and establish theme areas. With the traditional library service model of network upgrading, information resources in the form of hardware carriers are a large number of digital process there are many information quality levels, which affects more factors, and the level of quality of library information resources has a direct impact on the effectiveness of the service, so focus on the quality of library information resources to enhance information services is an important issue in front of the current library managers (Wang Chan, 2016, p.400). 6) User training and education, user training, efficiency in the use of digital resources, regular user training, teacher seminars. The contents and methods of librarian training, new student induction training and user information quality education in university libraries in the new situation (Liuzuyun, 2012).

6. Individual benefit refers to a measure of the benefits realized from using the system. It assesses the extent to which the IS contributes to the success of individuals, groups, or the entire organization. primarily digital library facilitates research and offers time-saving benefits. The library's resources are not only of high

quality but also enhance learning efficiency. It assists staff in making better decisions and makes the research experience an enjoyable process. The library's varied resources ensure a holistic development while fostering self-directed learning. Furthermore, its role in contributes to career development. With the added advantage of helpful courses & tutorials and granting easier access to the latest information, it remains a cornerstone for academic and professional progression. consisted of 6 strategies. 1) Quality and quantity of digital resources, mentioning the provision of rich, diverse and high-quality digital resources. Ma Jianxia (2005) the article analyses the importance of post-evaluation of digital resources in libraries, explores the content and methods of conducting post-evaluation of digital resources in libraries, and discusses the problems of post-evaluation of digital resources in libraries in China at present. 2) optimisation of service processes, discussing the optimisation of the user interface, providing clear and concise operation guidelines, mentioning the reduction of the difficulty of use and the enhancement of user experience. The library has changed the management concept of "book-oriented", built the management concept of "reader-oriented", and insisted on the management mode of serving readers. Library is an important service window of universities, it plays an important role in enriching the cultural life of college students, improving the level of scientific research, and promoting the forward development of socialist culture. Libraries adhere to the people-oriented, that is, adhere to the reader-oriented, it adapts to the direction of the development of libraries, but also to measure the level of library management and service level of the important signs (Zhanglan, 2013). 3)Training and skills enhancement Regularly organise, training on digital resource management to enhance the digital literacy and skills of different users. Against the background of the high importance attached to digital literacy education in higher education by higher education management institutions, industry bodies such as JISC and the British National and University Libraries Association (BNULA) have implemented a series of digital literacy education practices in the field of higher education, laying a foundation for the development of digital literacy education in higher education with libraries as the core. Inspired by them, domestic university libraries can carry out digital literacy education practices in the following aspects: formulating a digital literacy framework, constructing a flexible and sound digital environment, setting up a digital academic centre, establishing a digital literacy

training system for relevant librarians, and developing and maintaining a sound partnership (Licunhui, 2017). 4) Academic research and exchanges, Provide specialised research data management courses and research support services, strengthen the connection between internal and external partners, and promote the sharing and exchange of digital resources. National college libraries are actively exploring new modes of scholarly communication services, and the policy support of relevant organisations and cooperation among libraries have promoted the scholarly communication services of American college libraries. U.S. college libraries have set up a special department of scholarly communication services, scholarly communication services mainly include open access, scholarly publishing, institutional knowledge base, data management, copyright services and so on. In view of this, China's funding agencies should help college libraries academic exchange services; library associations should advocate academic exchange services; college libraries should raise the importance of academic exchange services, joint academic exchange services, in order to promote the development of China's colleges and universities academic exchange services (Min Xianlu, 2013). 5)Specific User Group Needs Provide customised, services to meet the specific needs of different user groups (e.g. undergraduates, postgraduates, teachers, administrators, etc).Adopting the experimental research method, we analyse the influence of six individual difference factors, namely, educational background, gender, retrieval skills, retrieval experience, browsing skills and browsing experience, on the evaluation of digital library users' interactive experience, and we find that: different users' individual difference factors have different influences on the evaluation of different digital library interactive experiences; the same individual difference factors have different influences on the evaluation of different digital library interactive experiences; the same individual difference factors have different influences on the evaluation of different digital library interactive experiences; and the same individual difference factors have different influences on the evaluation of different digital library interactive experiences. experience evaluation; different user individual difference factors have different impacts on different digital library interaction experience evaluation measurement indexes; digital libraries should focus on the measurement indexes of interaction experience evaluation when designing (Xu Fang, 2014, p.56-61). 6)user services and experience, customised and efficient user support and services,

workshop series, online tutorials and one-on-one research consulting services. explored the effect of micro-services in college libraries from the user's perspective and identified the factors that have a significant impact on the effect of micro-services to provide guidance suggestions for the construction of micro-services in college libraries. The results of the study show that: overall, the interviewed users evaluate the effect of micro-services in college libraries higher; the user-perceived micro-content diversity, micro-knowledge content helpfulness, micro-platform stability, micro-service interactivity is slightly lower (Peng Aidong & Xia Lijun, 2018, p.33-43).

Part 3: the Suitability and feasibility of digital resource management for staff in Guangxi universities

1. The Suitability and feasibility of system quality was at highest level.

In the context of rapid advancements in information technology, the feasibility and Suitability of library system quality have become key indicators for measuring the efficiency of library services and user satisfaction. As the bridge connecting users with digital resources, the quality of library systems directly affects the accessibility, usability, and continuity of services. Therefore, ensuring high-quality library systems is not only feasible but also fundamental for the continuous development of libraries and meeting user needs (Lina Dai, 2022, p.28-30). Firstly, technological advancements provide a solid foundation for improving the quality of library systems. The application of modern information technologies such as cloud computing, big data analytics, artificial intelligence, and machine learning enables libraries to effectively manage vast digital resources, optimize search algorithms, and offer personalized recommendations, significantly enhancing user experience. The integration of these technologies not only enhances the system's processing capabilities and resource accessibility but also endows the system with unprecedented scalability and flexibility (Kang Qi et al., 2020, 49-54). Secondly, the progress in user interface (UI) and user experience (UX) design principles ensures the usability and accessibility of library systems. By adopting intuitive designs and providing clear operation guides, library systems can meet the needs of users with diverse backgrounds and skill levels. Continuously collecting user feedback and adjusting system designs accordingly ensures that the system can promptly adapt to

changes in user needs, further enhancing system Suitability and overall service quality (Rongguang, 2020, p.15-18). Furthermore, the modular architecture design of library systems lays the foundation for sustainable development. This design not only facilitates system upgrades and maintenance but also quickly adapts to new technologies and service demands. Regular technological assessments and updates ensure that library systems can operate optimally, while also preventing potential obsolescence issues (Lina Dai, 2022, p.28-30). Lastly, libraries must recognize that improving system quality is an ongoing process that requires continuous investment and improvement. This includes investment in new technologies, training staff to enhance their technical abilities, and establishing effective response mechanisms to user feedback (Qin et al., 2017).

In summary, by leveraging advanced information technologies, adopting best design practices, and continuously assessing and updating systems, the feasibility and Suitability of library system quality can not only reach the highest levels but also become a driving force for continuous improvement and innovation in library services. This not only ensures that libraries can provide efficient and reliable services but also brings a rich and convenient information acquisition experience to users, thus maintaining the core value and importance of libraries in the digital age.

2. The Suitability and feasibility of information quality was at highest level.

The digital era, the quality of information provided by libraries, known as "information quality," is crucial for academic research, education, and public knowledge enrichment. The feasibility and Suitability of achieving the highest levels of information quality in libraries are supported by several factors that contribute to the continuous improvement and effectiveness of library services. Firstly, the advancement in digital technologies and information management systems has significantly enhanced the ability of libraries to curate, manage, and disseminate high-quality information. Libraries now have access to sophisticated digital platforms and databases that allow for the efficient organization, storage, and retrieval of information. These systems are designed to ensure accuracy, relevance, and timeliness of the information, which are key dimensions of information quality (Wang Chan, 2016, p.400). Secondly, the implementation of rigorous content curation and evaluation processes ensures the reliability and authority of information resources.

Libraries employ professionals who specialize in information science and subject-matter experts to evaluate and select resources based on established criteria. This meticulous approach to resource selection guarantees that the information provided is not only current but also of high scholarly and scientific value (Zhao Yingxing, 2018, p.166-167). Thirdly, libraries have adopted user-centric service models that prioritize the needs and feedback of their users. By engaging in continuous dialogue with their user base through surveys, feedback mechanisms, and user analytics, libraries can adapt their collections and services to meet evolving information needs. This Suitability enhances the relevance and usefulness of library resources, further elevating the information quality (Ma Xiaolan, 2022). Moreover, the collaboration and network among libraries and academic institutions globally contribute to the richness and diversity of information resources. Through consortia and digital resource sharing platforms, libraries can offer access to a vast array of global information resources, ensuring that users have access to comprehensive and diverse content (Qi Na & Song Lirong, 2015). However, maintaining the highest level of information quality requires ongoing effort and investment. Libraries must stay abreast of technological advancements, invest in staff training, and continuously evaluate and update their information resources and services. This commitment to excellence ensures that libraries remain indispensable sources of high-quality information in the digital age (Zhao Yingxing, 2018, p.166-167).

In conclusion, the feasibility and Suitability of achieving the highest level of information quality in libraries are well-supported by advancements in information technology, rigorous content curation processes, user-centric service models, and global collaboration. These elements collectively ensure that libraries can provide accurate, relevant, and authoritative information that meets the diverse needs of their users. As libraries continue to evolve and adapt to new challenges, their commitment to maintaining the highest standards of information quality will remain a cornerstone of their service to society.

3. The Suitability and feasibility of information servise quality was at highest level.

In the context of the digital age, the quality of library information services has become a key indicator for measuring the capability of libraries to meet user needs. The feasibility and Suitability of achieving the highest levels of library information

service quality are enhanced by technological advancements, service model innovation, and increased user engagement, which together drive library services to a higher standard. Firstly, rapid developments in information technology have greatly enhanced the ability of libraries to provide high-quality information services. The application of modern technologies such as cloud computing, big data, and artificial intelligence enables libraries to effectively manage and process vast amounts of information resources, improving the accuracy and efficiency of information retrieval. These technologies not only optimize the processes of information storage and access but also support personalized information services, meeting the diverse information needs of users (Ruili Zhang, 2021, p.1-3; Li Zichen, 2023, p.109-111). Secondly, the innovation of library service models is key to improving information service quality. By implementing a user-centered service philosophy, libraries pay more attention to the user experience, actively adopt user feedback, and continuously adjust and optimize service processes. For example, the flexibility and convenience of services such as online consultations, virtual reference services, and customized information services have significantly increased user satisfaction and loyalty (Ma Xiaolan, 2022). Furthermore, active user participation is crucial for enhancing the quality of library information services. Libraries encourage user involvement in the service improvement process through feedback mechanisms, user surveys, and user education and training. Direct feedback and needs from users become an important basis for library service innovation and optimization, making the services more closely aligned with actual user requirements and increasing the personalization and target effectiveness of services (Li Zichen, 2023, p.109-111). However, continuously improving information service quality is a dynamic process that requires libraries to constantly adapt to technological changes, shifts in user needs, and the development of the information environment. This demands ongoing investment from libraries in technology updates, staff training, and service model innovation (Zhu Shumei, 2023, p.213-216).

In summary, the high feasibility and Suitability of library information service quality are achieved through the combined effects of technological progress, service model innovation, and increased user engagement. As information technology continues to evolve and user needs change, libraries must continuously explore and innovate to ensure their information services can keep up with the high demands of

users, providing efficient, accurate, and convenient information services, and continuing to play a significant role in the knowledge society.

4. The Suitability and feasibility of intention to use was at highest level.

In the current information age, libraries, as important repositories of knowledge and information, have their effectiveness and appeal directly impacting users' willingness to use their services. The intention to use libraries is a key indicator of whether library services and resources meet user needs, and its high level of feasibility and Suitability reflects the library's ability to flexibly respond to changes in the information environment and meet the growing demands of users (Zhang Xu Gear, 2022). Firstly, with the continuous advancement of digital technology, libraries have the capability to enhance user experience through digital services, thereby strengthening users' intention to use. By providing e-books, online databases, virtual reference services, and more, libraries can transcend the limitations of time and space to offer more convenient and efficient services to users. The diversity and convenience of these services are important factors in improving the intention to use libraries (Li Aiming, 2015, p.68-71). Secondly, by continuously optimizing service processes and improving service quality, libraries can better adapt to changes in user needs. Through user surveys, feedback collection, and personalized services, libraries can more accurately grasp user needs and timely adjust service strategies, thereby enhancing user satisfaction and loyalty. This sensitive service model to user needs effectively increases users' intention to use (Zhou Zhicheng, 2011, p.116-119). Furthermore, the cooperation and sharing strategies of libraries are also key ways to enhance the intention to use. Through collaboration with other libraries and research institutions, libraries can expand their range of resources and provide a richer information resource. At the same time, resource-sharing platforms built using modern technology enable users to access needed information more conveniently, further enhancing the intention to use (Kay Xu, 2021, p.64-66). However, the process of improving libraries' intention to use also faces challenges. The rapid development of information technology requires libraries to constantly update equipment and software to enhance the security and stability of information systems, posing higher demands on libraries' resources and management. Additionally, the diversity of user needs requires library services to have a high degree of flexibility and Suitability to meet the specific needs of different users (Zhang Xiaojuan, 2014).

In summary, the high feasibility and Suitability of the intention to use libraries are reflected in the libraries' ability to provide diverse services using digital technology, flexibly respond to changes in user needs, and expand service scope through resource sharing. By continuously optimizing services and enhancing user experience, libraries can effectively increase users' intention to use, allowing libraries to continue playing a core role in knowledge dissemination and information services.

5. The Suitability and feasibility of user satisfaction was at highest level.

In the contemporary field of library services, user satisfaction is one of the key indicators for measuring the effectiveness and quality of library services. It reflects how libraries meet user needs and provide effective, efficient, and personalized services. High levels of user satisfaction not only demonstrate the feasibility of library services but also show the library's ability to adapt to technological changes and shifts in user expectations. Firstly, libraries meet users' needs ranging from basic information queries to advanced academic research by providing a rich and diverse array of resources and services. With the development of digital technology, libraries can use electronic resources, online databases, and virtual reference services, among other tools, to offer users a more convenient access experience, thereby increasing user satisfaction (Kay Xu, 2021, p.64-66) . Secondly, libraries focus on optimizing the user experience, continuously improving user interfaces and service processes. Through user research and feedback mechanisms, libraries can understand specific user needs and usage habits and adjust service strategies accordingly, making services more humanized and efficient. For example, libraries can enhance user satisfaction by optimizing search engines based on user feedback, simplifying the borrowing process, or providing personalized resource recommendations (Zhang Xiaojuan, 2014). Moreover, libraries actively conduct user training and education activities to enhance users' information literacy and resource utilization capabilities. Through regularly held training courses, workshops, and lectures, users can better understand the library's services and resources, thereby improving their usage efficiency and satisfaction. However, enhancing user satisfaction also faces challenges, including the rapid changes in technology updates, the diversity of user needs, and the increase in personalized demands. Libraries need to continuously invest in technology and human resources to keep services modern and diversified while also establishing effective communication channels to ensure timely responses to user feedback and changes in needs (Kong Chao & Ding Xuan, 2014, p.60-64).

In summary, enhancing library user satisfaction is an ongoing process that requires libraries to make continuous efforts and innovations in service content, user experience, technology application, and user education. Through the measures mentioned above, libraries can not only improve user satisfaction but also maintain competitiveness and relevance in the constantly changing information service environment, better serving users and facilitating the dissemination and utilization of knowledge.

6. The Suitability and feasibility of individual benefit was at highest level.

In the contemporary library service system, individual benefit, as a key indicator measuring the library's value and satisfaction to users on a personal level, has increasingly highlighted its importance. Libraries, by providing a wealth of resources and diversified services, not only meet users' information needs but also promote the development of users' personal abilities and knowledge expansion, demonstrating the highest level of feasibility and Suitability of library services. Firstly, the specialized and personalized services provided by libraries, such as information retrieval, academic research support, and skill training, directly promote the benefit of users' personal academic and professional development. These services not only help users efficiently access the needed information but also offer tools and methods for learning and research, enhancing users' problem-solving abilities (Xu Fang, 2014, p.56-61). Secondly, with the development of digital resources and online services, libraries can more flexibly adapt to the changing needs of users, offering learning and research support anytime, anywhere. This unrestricted access to information significantly improves user convenience and individual benefit (Peng Aidong & Xia Lijun, 2018, p.33-43). Furthermore, by organizing various cultural activities and academic lectures, libraries offer users rich platforms for learning and communication. These activities not only enrich users' cultural lives but also broaden their horizons and social networks, thereby increasing users' social capital, another important aspect of individual benefit (Zhou Wenjie, 2017, p.47-56). However, to maximize individual benefits, libraries also face challenges. How to continuously provide high-quality services and resources, effectively utilize technological innovations to adapt to changes in user needs, and strengthen interaction and feedback with users are areas that libraries need to constantly explore and optimize (Ma Xiaolan, 2022).

In summary, libraries demonstrate a high level of feasibility and Suitability in enhancing individual benefits. By offering specialized and personalized services, utilizing digital resources and technology, and organizing a variety of cultural and academic activities, libraries not only meet users' basic information needs but also promote the enhancement of users' personal abilities and the increase in social capital. In the future, libraries should continue to deepen service content, leverage technological innovations, and enhance user interaction to maximize the individual benefits to users.

Recommendations

Implications

The research results showed that the recommendations about digital resource management for staff in Guangxi universities are as follows:

1. System Quality Administrators should enhance system quality in the digital resource management of university libraries. With advancing technology and growing user demands, libraries must meet teaching and research needs through high-quality systems. System quality includes user interface friendliness, stability, response speed, data security, and personalized services. Future systems should focus on user experience, utilizing AI for personalized services and continuously strengthening data security and privacy measures. The use of cloud computing and big data will enable resource sharing and inter-university cooperation. Libraries should keep up with tech trends, regularly update systems, gather user feedback, and conduct security audits and risk assessments to ensure system security. These actions will enhance system quality, better supporting teaching and research while meeting diverse user needs.

2. Information Quality In the digital resource management of university libraries, information quality is crucial, directly impacting library services and user experiences. As the digital age progresses, users increasingly demand accurate, timely, complete, and relevant information. Enhancing information quality is therefore vital for university libraries. To achieve this, libraries should strengthen cooperation with content providers to secure high-quality resources and utilize advanced technologies like AI and natural language processing to improve information retrieval. Establishing systematic review and update mechanisms to

regularly evaluate and remove outdated content is also necessary. Additionally, enhancing user education to improve information literacy through training and workshops will help users effectively utilize high-quality resources. By collaborating with quality content providers, leveraging modern technology, implementing quality control mechanisms, and strengthening user education, university libraries can improve information quality, meet user demands, and support academic work.

3. Information Servise quality In university digital library resource management, the quality of information services is pivotal for fulfilling academic and research needs. As digital resources become essential, the demand for high-quality, accessible, reliable, and user-friendly information services grows. University digital libraries must enhance accessibility and usability by adopting intuitive user interfaces for diverse users and ensuring compatibility across devices and platforms. Leveraging AI and machine learning can personalize the user experience, making resource discovery more efficient and tailored to individual needs. To ensure reliability, libraries should implement robust technical support systems and maintain clear communication channels for reporting issues and receiving assistance. Continuous user education programs are also essential, empowering users to navigate and utilize digital resources effectively. In conclusion, university digital libraries should prioritize user-centric design, embrace technological innovations for personalized services, maintain high reliability standards, and foster continuous learning and support. This approach will enhance information service quality, meet evolving user needs, and support the academic mission of their institutions.

4. Intention to use In university digital libraries, the intention to use digital resources depends on perceived usefulness, ease of use, accessibility, and support quality. Libraries should adopt user-centric strategies, invest in intuitive platforms, and conduct needs assessments to align collections with academic interests. Robust support services, including training and help desks, can alleviate technical challenges.

In summary, by focusing on ease of use, aligning resources with user needs, and providing strong support, digital libraries can increase the intention to use, enhancing the academic environment.

5. User Satisfaction In university digital libraries, user satisfaction is key for engagement. It depends on content quality, search efficiency, platform user-friendliness, and support services. To enhance satisfaction, libraries should update

and optimize digital platforms to be intuitive and accessible. Engaging with users through surveys and feedback ensures relevant and high-quality content. Comprehensive support services, such as tutorials and help desks, help users navigate resources effectively and enhance their experience. In conclusion, focusing on technology, content relevance, and strong support services improves user satisfaction and reinforces the library's role as an essential academic resource.

6. Individual Benefit In university digital libraries, individual benefit reflects the personal gains students and faculty derive from digital resources, such as enhanced learning, improved research efficiency, and broader knowledge. To maximize this benefit, a multifaceted strategy is needed. University digital libraries should continuously update their collections across various disciplines, ensuring access to the latest and most relevant resources. Additionally, leveraging data analytics and user feedback can help tailor recommendations and services to individual preferences and study patterns, making the digital experience more personalized and relevant. Enhancing digital literacy through training, online tutorials, and support for digital tools empowers users to navigate and utilize digital content effectively. These efforts collectively enhance academic achievement, personal growth, and reinforce the library's role in the educational ecosystem.

Future Researches

In the evolving landscape of university digital library management, six pivotal variables-system quality, information quality, information service quality, intention to use, user satisfaction, and individual benefit—form the cornerstone of future research and development efforts. Each variable, integral to the library's service delivery framework, influences the efficacy and user perception of digital resource management.

1. System Quality, emphasizing the technical robustness and user interface design, demands continuous refinement to align with emerging technologies and user expectations. Future research should explore adaptive and predictive systems that offer personalized user experiences.

2. Information Quality, focusing on the relevance, accuracy, and timeliness of digital resources, calls for sophisticated curation and validation mechanisms. Advancements in artificial intelligence for automated content curation and verification are promising areas for exploration.

3. Information Service Quality, highlighting the effectiveness of information retrieval and user support, necessitates the integration of intuitive search algorithms and comprehensive user support services. Investigating natural language processing and chatbot technologies could enhance service responsiveness.

4. Intention to use, reflecting user willingness to engage with digital resources, underscores the importance of understanding user motivations and barriers Future studies might delve into psychological and social factors influencing user engagement with digital libraries.

5. User satisfaction, capturing the overall contentment with digital library services, requires ongoing assessment to identify and address service gaps. Research into user feedback loops and continuous improvement models is critical for elevating user satisfaction.

6. Individual Benefit, denoting the personal value users gain from digital resources, suggests a need for personalized learning and research pathways. Exploring adaptive learning technologies and user-centric design principles can maximize individual gains from digital library resources.

Collectively, these variables represent a comprehensive framework for enhancing university digital library services. Future research should aim to integrate technological innovations, user-centric design, and personalized service delivery to meet the evolving needs of the academic community

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Appendices

Appendix A

List of Specialists and Letters of Specialists Invitation for IOC Verification

List of Specialists and Letters of Specialists Invitation for IOC Verification

Serial number	Name (Title)	The Sample Group
1	Professor Dr. Ma Huanling	Guangxi Normal University
2	Professor Dr. Deng Guoping	Hechi University
3	Professor Dr. Gao Fei	Guangxi University of Science and Technology
4	Professor Dr. Sun Cuncang	NanNing University
5	Professor Wang Cengjiu	Guangxi University

Appendix B

Official Letter

Ref.No. MHESI 0643.14/ 111

Bansomdejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

19 January 2024

RE: Invitation to evaluate the Strategies

Dear Professor Dr. Yao Yuanguo,Baise University

Mrs.Yu Yanna is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Digital Resource Management Strategies for Staff in Guangxi Universities"

The thesis adversity committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research.

With your expertise, we would like to ask your permission to evaluate the attached Strategies. Would like to avail ourselves of this opportunity to express our sincere thanks and appreciation for your help.

Sincerely,

(Assistant Professor Dr.Kanakorn Sawangcharoen)
Dean of Graduate School

Bansomdejchaopraya Rajabhat University
Tel.+662-473-7000
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E-mail: grad@bsru.ac.th

Ref.No. MHESI 0643.14/ 107

Bansomdejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

19 January 2024

RE: Invitation to evaluate the Strategies

Dear Professor Dr. Yang Feng,Guangxi Normal University

Mrs.Yu Yanna is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Digital Resource Management Strategies for Staff in Guangxi Universities"

The thesis adversity committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research.

With your expertise, we would like to ask your permission to evaluate the attached Strategies. Would like to avail ourselves of this opportunity to express our sincere thanks and appreciation for your help.

Sincerely,

(Assistant Professor Dr.Kanakorn Sawangcharoen)
Dean of Graduate School

Bansomdejchaopraya Rajabhat University
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Bansomdejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

19 January 2024

RE: Invitation to evaluate the Strategies

Dear Professor Dr. Wang Cheng,Guangxi University

Mrs.Yu Yanna is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Digital Resource Management Strategies for Staff in Guangxi Universities"

The thesis adversity committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research.

With your expertise, we would like to ask your permission to evaluate the attached Strategies. Would like to avail ourselves of this opportunity to express our sincere thanks and appreciation for your help.

Sincerely,

(Assistant Professor Dr.Kanakorn Sawangcharoen)
Dean of Graduate School

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19 January 2024

RE: Invitation to evaluate the Strategies

Dear Professor Dr. Qiu Cuiyun,Hechi University

Mrs.Yu Yanna is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Digital Resource Management Strategies for Staff in Guangxi Universities"

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Ref.No. MHESI 0643.14/ 103

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19 January 2024

RE: Invitation to evaluate the Strategies

Dear Professor Dr. Xie Qing,NanNing University

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Ref.No. MHESI 0643.14/ 109

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19 January 2024

RE: Invitation to evaluate the Strategies

Dear Professor Dr. Li Shunming,Guangxi University of Finance and Economics

Mrs.Yu Yanna is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Digital Resource Management Strategies for Staff in Guangxi Universities"

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Ref.No. MHESI 0643.14/ 102

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19 January 2024

RE: Invitation to evaluate the Strategies

Dear Professor Dr. Li Guanghai,Guangxi Normal University

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19 January 2024

RE: Invitation to evaluate the Strategies

Dear Professor Dr. Cen Pan,Guangxi Arts University

Mrs.Yu Yanna is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Digital Resource Management Strategies for Staff in Guangxi Universities"

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19 January 2024

RE: Invitation to evaluate the Strategies

Dear Professor Dr. PangPei,GuangXi University

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19 January 2024

RE: Invitation to evaluate the Strategies

Dear Professor Dr. Chen Guangwei,Nanning Normal University

Mrs.Yu Yanna is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Digital Resource Management Strategies for Staff in Guangxi Universities"

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Ref.No. MHESI 0643.14/ 101

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11 January 2024

RE: Invitation to evaluate the Strategies

Dear Professor Dr. Cen Zhiwu,GuangXi University

Mrs.Yu Yanna is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Digital Resource Management Strategies for Staff in Guangxi Universities"

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19 January 2024

RE: Invitation to evaluate the Strategies

Dear Professor Dr. Jiang Yanping,Guangxi Minzu University

Mrs.Yu Yanna is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Digital Resource Management Strategies for Staff in Guangxi Universities"

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Thonburi Bangkok 10600

19 January 2024

RE: Invitation to evaluate the Strategies

Dear Professor Dr. Yu Ling,Guangxi University of Science and Technology

Mrs.Yu Yanna is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Digital Resource Management Strategies for Staff in Guangxi Universities"

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19 January 2024

RE: Invitation to evaluate the Strategies

Dear Professor Dr. Liu Weidong,Wuzhou University

Mrs.Yu Yanna is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Digital Resource Management Strategies for Staff in Guangxi Universities"

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19 January 2024

RE: Invitation to evaluate the Strategies

Dear Professor Dr. Li Li,Guangxi Arts University

Mrs.Yu Yanna is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Digital Resource Management Strategies for Staff in Guangxi Universities"

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Ref.No. MHESI 0643.14/ 120

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19 January 2024

RE: Request for Data Collection

Dear Wuzhou University

Mrs.Yu Yanna is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Digital Resource Management Strategies for Staff in Guangxi Universities"

The thesis adversity committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research. List of universities and colleges according to the attached document.

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19 January 2024

RE: Request for Data Collection

Dear Guangxi University

Mrs.Yu Yanna is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Digital Resource Management Strategies for Staff in Guangxi Universities"

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Ref.No. MHESI 0643.14/ 116

Bansomdejchaopraya Rajabhat University
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19 January 2024

RE: Request for Data Collection

Dear Nanning Normal University

Mrs.Yu Yanna is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Digital Resource Management Strategies for Staff in Guangxi Universities"

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Ref.No. MHESI 0643.14/ 115

Bansomdejchaopraya Rajabhat University
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19 January 2024

RE: Request for Data Collection

Dear Guangxi Normal University

Mrs.Yu Yanna is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Digital Resource Management Strategies for Staff in Guangxi Universities"

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14 January 2024

RE: Request for Data Collection

Dear Guangxi Minzu University

Mrs.Yu Yanna is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Digital Resource Management Strategies for Staff in Guangxi Universities"

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Ref.No. MHESI 0643.14/ 119

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1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

19 January 2024

RE: Request for Data Collection

Dear Baise University

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Ref.No. MHESI 0643.14/ 117

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19 January 2024

RE: Request for Data Collection

Dear Guangxi Arts University

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Ref.No. MHESI 0643.14/ 114

Bansomdejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

19 January 2024

RE: Request for Data Collection

Dear Guangxi University of Science and Technology

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Ref.No. MHESI 0643.14/ 122

Bansomdejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

19 January 2024

RE: Request for Data Collection

Dear NanNing University

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Ref.No. MHESI 0643.14/ 121

Bansomdejchaopraya Rajabhat University
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Thonburi Bangkok 10600

19 January 2024

RE: Request for Data Collection

Dear Guangxi University of Finance and Economics

Mrs.Yu Yanna is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Digital Resource Management Strategies for Staff in Guangxi Universities"

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Ref.No. MHESI 0643.14/ 123

Bansomdejchaopraya Rajabhat University
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Thonburi Bangkok 10600

19 January 2024

RE: Invitation to validate research instrument

Dear Professor Dr. Ma Huanling,Guangxi Normal University

Mrs.Yu Yanna is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Digital Resource Management Strategies for Staff in Guangxi Universities"

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Ref.No. MHESI 0643.14/ 126

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19 January 2024

RE: Invitation to validate research instrument

Dear Professor Dr. Sun Cuncang,NanNing University

Mrs.Yu Yanna is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Digital Resource Management Strategies for Staff in Guangxi Universities"

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19 January 2024

RE: Invitation to validate research instrument

Dear Professor Dr. Deng Guoping,Hechi University

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19 January 2024

RE: Invitation to validate research instrument

Dear Professor Dr. Wang Cengjiu,Guangxi University

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Ref.No. MHESI 0643.14/ 125

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Thonburi Bangkok 10600

19 January 2024

RE: Invitation to validate research instrument

Dear Professor Dr. Gao Fei,Guangxi University of Science and Technology

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Appendix C

Research Instrument

1. Survey Questionnaire

Survey Questionnaire on the Digital Resource Management Strategies for Staff in Guangxi Universities

Instructions:

In order to understand the current situation of digital resource management for staff in Guangxi universities.and to propose strategies conducive to the development of the digital resource management for staff in Guangxi universities, a questionnaire survey was conducted on staffs of university in Guangxi.

Each question and answer in this questionnaire is not right or wrong, and the answers you provide will only be used for the overall statistical analysis. They will never be handled separately or publicly available, and the information will be kept strictly confidential and will not be disclosed to anyone. You do not need to provide your personal name when filling out the questionnaire. Please feel free to answer these questions.

Part 1: Respondent Status (Personal Information)

1. School：

❒Guangxi University

❒Nanning University

❒Nanning Normal University

❒Guangxi Arts University

❒Guangxi Nationalities University

❒Guangxi Finance and Economics University

❒Baise University

❒Guangxi University of Science and Technology

❒Guangxi Normal University

❒Hechi University

2.Gender:

❒Male;

❒Female

Part 1: Respondent Status (Personal Information) (continue)

3.Age:

❒25 years old or below;

❒26 to 35;

❒36 to 45;

❒46 to 55;

❒56 years old or up

4.Education:

❒Bachelor degree;

❒Master's degree;

❒Doctoral degree

5.Position:

❒Teaching assistant;

❒The lecturer or Assistant Professor;

❒Associate professor;

❒Professor

6.Experience:

❒within 5 years;

❒5 to 10 years;

❒11 to 15 years;

❒16 to 20 years;

❒More than 20 years

Part 2: Questionnaire

NO.	Dependent Variable Name	5	4	3	2	1
	System quality					
1	Staff used the operation of the library's digital resources system platform convenient.					
2	Staff uses the system stability of library digital resources to ensure continuous access to digital resources.					
3	Staff responds quickly to operations using the library's digital resource system.					
4	Staff have 24-hour access to library digital resources.					
5	Staff can use mobile devices compatibility to access the library digital resource system platform					
6	Staff can update and optimize the user interface of the libry's digital resources in real time.					
7	Staff can use the user interface of the library's digital resources efficiency and easy task completion.					
8	Staff can search various types of digital resources by using the library digital resource system.					
9	Staff can search across multiple databases at the same time by using the library digital resource system.					
10	Saffs'information and data safety in library digital resource system.					
11	Staff uses the library digital resource system to download speed.					

Part 2: Questionnaire(continue)

NO.	Dependent Variable Name	5	4	3	2	1
	Information quality					
1	Staff using information on library digital resources is updated promptly.					
2	Staff using information on library digital resources is accurate.					
3	Staff using information on library digital resources is comprehensive					
4	Staff using the papers and journals in the digital resources of the library are of high quality.					
5	Staff using the subject materials covered in the digital resources of the library are extensive Coverage.					
6	Staff using utilized in the digital resources of the library continuously update and expand.					
7	Staff using the digital resources of the library have their own built-in databases.					
8	Staff using the digital resources of the library utilized are helpful.					
9	Staff using the content of the digital resources in the library is highly distinguishable from other resources.					
10	Staff using the search results from the library's digital resources highly correlate with the required digital resources.					
11	Staff accessing the digital resources of the library encompass a wide array of multimedia content such as videos and audios					

Part 2: Questionnaire(continue)

NO.	Dependent Variable Name	5	4	3	2	1
	Information servise quality					
1	Staff enhances the academic research and efficiency by using he university library's information service.					
2	Staff training and guidance through the library's information service offers .					
3	Staff using the library's digital resources can get the receives swift responses from customer service.					
4	Staff using the library's digital resources encounter difficulties can be addressed with precision.					
5	Staff using the library's digital resources can get subject librarianship services available .					
6	Staff can get specialized academic guidance from Subject librarians .					
7	Staff can get personalized recommendation services from the digital library .					
8	Staff can get multilingual service functionalities from the digital library.					
9	Staff's opinions and suggestions on the quality of information services are effectively addressed and feedback is provided.					
10	Staff can get long-term resource storage and preservation provides from the library's digital information service.					
11	Staff can get constantly updated with convenient new features from library digital information service.					
12	Staff can get usage offers tutorials and guides from library digital information service.					

Part 2: Questionnaire(continue)

NO.	Dependent Variable Name	5	4	3	2	1
	Intention to use					
1	Staff frequently use the digital library's information retrieval feature.					
2	Staff's meets needs can be satisfied from the digital library's information retrieval system .					
3	staff's requirements can be accurately understand by the digital library's information service.					
4	Staff's learning and research efficiency can be enhanced by the digital library .					
5	Staff using the information retrieval system of the digital library is reliable and accurate.					
6	Staff can achieve their learning and research goals more easily and conveniently using the digital library.					
7	Staff enjoy using the library's digital resources					
8	Staff would recommend the digital library to others.					
9	Staff's expectations and requirements can be fulfilled aligns with by the digital library system .					
10	Staff using with peace of mind due to the digital library's information service prioritizes privacy.					

Part 2: Questionnaire(continue)

NO.	Dependent Variable Name	5	4	3	2	1
	User satisfaction					
1	Staff is satisfied with the overall user experience of the digital library					
2	Staff finds the user interface of the digital library clear and aesthetically pleasing					
3	Staff is satisfied with the loading speed of the digital library					
4	Staff is satisfied with the service quality of the digital library.					
5	Staff believes the information quality in the digital library is high.					
6	Staff finds the resources provided by the digital library (e-books, papers, audio-visual materials, etc.) to be sufficient					
7	Staff believes the digital library makes research and work more efficient.					
8	Staff thinks the technical support from the digital library is effective					
9	Staff needs based on the digital library frequently updates digital resources					
10	Staff finds the categorization and tagging of the digital library easy to understand and use					

Part 2: Questionnaire(continue)

NO.	Dependent Variable Name	5	4	3	2	1
	Individual benefit					
1	Staff believe the digital library facilitates their academic research.					
2	Staff think the digital library saves time in searching for information.					
3	Staff consider the quality of resources provided by the digital library improves their learning efficiency.					
4	Staff believe the information provided by the digital library enables better decision-making.					
5	Staff feel the digital library makes the research and work process more enjoyable.					
6	Staff believe the resource diversity of the digital library contributes to holistic development					
7	Staff believe the digital library promotes self-directed learning.					
8	Staff think the digital library contributes to their career development.					
9	Staff believe courses or tutorials provided by the digital library are very helpful.					
10	Staff believe the digital library allows easier access to the latest information in their industry or academic field.					

Part 3: SWOT on the digital resource management for staff in Guangxi universities.

Please complete the following questions based on the strengths, weaknesses, opportunities, and threats of the digital resource management strategies of digital resource management for staff in Guangxi universities This requests a detailed and clear description , focusing on evaluating the digital resource management in Guangxi universities within the context of SWOT analysis.

1. Strengths

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…… ……

2. Weaknesses

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3. Opportunities

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……

4. Threats

……

……

Focus Group Discussion

Research Title: Digital resource management for staff in Guangxi universities

Part1: List of Focus Group Discussion

Expert	Education background (year)	Discussion Date time	University	Work experience (year)
Expert1	**Education:** master's degree **Specialization:** librarianship	November 8th ,2023,9:00 am GMT+8	Guangxi University	15
Expert2	**Education:** master's degree **Specialization:** librarianship	November 11th ,2023,14:00 pm GMT+8	Nanning University	11
Expert3	**Education:** master's degree **Specialization:** librarianship	November 14th ,2023,10:00 am GMT+8	Nanning Normal University	13
Expert4	**Education:** master's degree **Specialization:** librarianship	November 17th ,2023,15:00 pm GMT+8	Guangxi Arts University	10
Expert5	**Education:** master's degree **Specialization:** librarianship	November 19th ,2023,9:00 am GMT+8	Guangxi Nationalities University	12
Expert6	**Education:** master's degree **Specialization:** librarianship	November 21st ,2023,15:00 pm GMT+8	Guangxi Finance and Economics University	11

Expert	Education background (year)	Discussion Date time	University	Work experience (year)
Expert7	**Education:** master's degree **Specialization:** librarianship	November 23rd,2023,9:00 am GMT+8	,Baise University	11
Expert8	**Education:** master's degree **Specialization:** Education management	November 25th ,2023,9:00 am GMT+8	Guangxi University of Science and Technology	13
Expert9	**Education:** master's degree **Specialization:** Education management	November 27th ,2023,9:00 am GMT+8	Guangxi Normal University	10
Expert10	**Education:** master's degree **Specialization:** Education management	November 30th ,2023,15:00 pm GMT+8	Wuzhou Academy	12

Part 3: Summary of changes made by the focus group

Expert 1

Enhancing System Quality in digital resource management involves a comprehensive approach that includes optimizing system performance through upgrades and network architecture optimization, improving user experience by refining the search interface and ensuring it is intuitive, incorporating advanced search functionalities like semantic and linked data search for academic research, strategically procuring digital resources and establishing partnerships with suppliers and content providers, and prioritizing network security to protect data confidentiality and integrity. This holistic strategy aims to create a user-friendly, efficient, and secure digital environment that supports the diverse needs of users in accessing and utilizing digital resources effectively.

Suggested Addition Strategies: Library digital resource management and platform optimization

Expert 2

Enhancing System Quality in digital resource management focuses on system performance optimization, user experience enhancements, advanced search capabilities for academic research, strategic digital resource procurement and partnerships, and robust network security measures. This approach aims to provide a secure, efficient, and user-friendly digital resource environment.

Suggested Addition Strategies: Library digital resource management and platform optimization, library digital resource management, hardware and software upgrade plan, system performance monitoring, platform function optimization update.

Expert 3

Enhancing Information Quality in digital resource management involves prioritizing data integrity through quality review and standardization, continually updating and expanding digital resources to meet evolving academic needs, optimizing self-built databases for better performance, leveraging technological innovations for efficient data management, and ensuring system performance and stability for reliable access. This strategy aims to maintain high-quality, accessible, and relevant digital content for users.

Suggested Addition Strategies: User experience and service improvement, the importance of user experience, accurate and efficient search service, user feedback and demand response.

Expert 4

Enhancing Information Service Quality in digital resource management emphasizes developing specialized library services tailored to academic disciplines, offering multi-language support to overcome language barriers, fostering international collaborations for resource sharing, integrating advanced technologies like AI and machine learning for innovative services, and leveraging user research and feedback for continuous service improvement. This approach aims to provide personalized, accessible, and globally connected information services.

Suggested Addition Strategies: Difficulty resolution and user support, establishment of demand response system, problem tracking system, research support group, etc. to provide timely and effective help.

Expert 5

Supporting the intention to use digital resources involves highlighting their critical role in enhancing teaching, research, and work efficiency, optimizing digital resource management through updates and improved functionalities, responding to user demands with personalized services, employing promotion and incentive strategies to encourage usage, and ensuring robust technical support and infrastructure for reliable access. This multifaceted approach aims to increase user engagement and satisfaction with digital resources.

Suggested Addition Strategies: Academic seminars and resource sharing.

Expert 6

Supporting the intention to use digital resources focuses on emphasizing their value in academia, optimizing management and functionalities, meeting user needs with tailored services, encouraging use through promotional efforts, and providing strong technical support for seamless access, aiming to boost engagement and satisfaction.

Suggested Addition Strategies: Academic seminars and resource sharing.organising academic seminars and establishing a resource sharing platform,

and reflecting the value of digital resources through the publication of research results.

Expert 7

Enhancing User Satisfaction in digital resource management involves gathering and acting on user feedback to refine services, providing accurate and comprehensive resources for teaching and research, utilizing data analysis for informed decision-making, optimizing information retrieval and service quality with supportive materials, and offering regular training to improve digital resource use efficiency, all aimed at elevating the overall user experience.

Suggested Addition Strategies: User interface design and optimisation, clarity, aesthetics and ease of use of the user interface and interface design testing, improvement and personalisation settings.

Expert 8

Enhancing User Satisfaction in digital resources management focuses on leveraging user feedback to improve services, ensuring digital resources support academic needs with accuracy and depth, utilizing data analysis for strategic decision-making, refining information retrieval and service quality with comprehensive support materials, and providing extensive training for efficient resource use. Additionally, optimizing the user interface for clarity, aesthetics, and ease of use is suggested to further enhance user experience and satisfaction.

Supporting Individual Benefit in digital resource management involves providing a wide range of high-quality digital resources, optimizing user interfaces and service processes for ease of use, offering regular training to improve digital literacy and skills, facilitating academic research through specialized courses and support services, and delivering personalized user support. Additionally, tailoring services to meet the specific needs of various user groups, such as undergraduates, postgraduates, teachers, and administrators, is recommended to enhance individual experiences and outcomes.

Expert 9

Supporting Individual Benefit in digital resources management focuses on delivering diverse, high-quality resources, streamlining service processes and user

interfaces for better accessibility, enhancing user skills through regular digital literacy training, bolstering academic research with specialized support and collaborative exchanges, and providing tailored user support including workshops, tutorials, and personalized consulting.

Suggested Addition Strategies: Specific User Group Needs Provide customised, services to meet the specific needs of different user groups (e.g. undergraduates, postgraduates, teachers, administrators, etc).

Expert 10

Agreeing with the discussions of various experts, it is recommended to incorporate the suggestions made by these experts. 1)Suggested Addition Strategies: Library digital resource management and platform optimization, library digital resource management, hardware and software upgrade plan, system performance monitoring, platform function optimization update. 2)Suggested Addition Strategies: User experience and service improvement, the importance of user experience, accurate and efficient search service, user feedback and demand response. 3)Suggested Addition Strategies: Difficulty resolution and user support, establishment of demand response system, problem tracking system, research support group, etc. to provide timely and effective help. 4)Suggested Addition Strategies: Academic seminars and resource sharing, organising academic seminars and establishing a resource sharing platform, and reflecting the value of digital resources through the publication of research results. 5)Suggested Addition Strategies: Academic seminars and resource sharing, organising academic seminars and establishing a resource sharing platform, and reflecting the value of digital resources through the publication of research results. 6)Suggested Addition Strategies: Specific User Group Needs Provide customised, services to meet the specific needs of different user groups (e.g. undergraduates, postgraduates, teachers, administrators, etc).

3.Assessment checklist

Assessment checklist of model for digital resource management for staff in Guangxi universities

Thank you very much for your busy schedule and participation in the evaluation of this study. Please assess the suitability and feasibility of be strategies for digital resource management for staff in Guangxi universities , with the numbers 5, 4, 3, 2 and 1 corresponding to extra high, high, average, low and extra low.

Assessment checklist	Suitability					Feasibility				
	5	4	3	2	1	5	4	3	2	1
1.System quality										
System performance optimization and upgrading										
User experience and interface improvement										
Library digital resource management and platform optimization										
Advanced Search Functionality and Academic Research										
Digital Resources Procurement and Cooperation										
Network security and protection										
2.Information quality										
Information quality and data review										
Updating and Expansion of Library Digital Resources										
Improvement and optimization of self-built databases										
User experience and service improvement										
Technological aspects and innovations										
System performance and stability										

Assessment checklist	Suitability					Feasibility				
	5	4	3	2	1	5	4	3	2	1
3.Information servise quality										
Library subject services										
Multi-language services										
Difficulty resolution and user support										
International cooperation and services										
Technology tools and innovative applications										
User research and feedback										
4.Intention to use										
The importance and use of digital resource										
Optimisation of digital resource management and services										
User demand and satisfaction										
Promotion and incentive strategies										
Academic seminars and resource sharing										
Technical support and infrastructure										
5.User satisfaction										
User experience and satisfaction										
User interface design and optimisation										
Teaching and research support										
Data analysis and decision-making support										
Information retrieval and service quality										
User training and education										

Assessment checklist	Suitability					Feasibility				
	5	4	3	2	1	5	4	3	2	1
6.Individual benefit										
Quality and quantity of digital resources										
Optimisation of service processes										
Training and skills enhancement Regularly										
Academic research and exchanges										
Specific User Group Needs Provide customised										
user services and experience										

Appendix D

The Results of the Quality Analysis of Research Instruments

1.Results of IOC

NO.	digital resource management for staff in Guangxi universities	Expert					IOC	Validity
		1	2	3	4	5		
	1.System quality							
1	Staff used the operation of the library's digital resources system platform convenient.	1	1	1	0	1	0.8	Valid
2	Staff uses the system stability of library digital resources to ensure continuous access to digital resources.	1	1	1	0	1	0.8	Valid
3	Staff responds quickly to operations using the library's digital resource system.	0	1	1	1	1	0.8	Valid
4	Staff have 24-hour access to library digital resources.	1	1	1	1	1	1	Valid
5	Staff can use mobile devices compatibility to access the library digital resource system platform	1	1	1	1	1	1	Valid
6	Staff can update and optimize the user interface of the librry's digital resources in real time.	1	0	1	1	1	0.8	Valid
7	Staff can use the user interface of the library's digital resources efficiency and easy task completion.	1	1	1	1	1	1	Valid

NO.	digital resource management for staff in Guangxi universities	Expert					IOC	Validity
		1	2	3	4	5		
8	Staff can search various types of digital resources by using the library digital resource system.	1	1	1	1	1	1	Valid
9	Staff can search across multiple databases at the same time by using the library digital resource system.	1	1	1	1	1	1	Valid
10	Saffs'information and data safety in library digital resource system.	1	1	1	1	1	1	Valid
11	Staff uses the library digital resource system to download speed.	0	1	1	1	1	0.8	Valid
	2.Information quality							
1	Staff using information on library digital resources is updated promptly.	1	1	1	1	1	1	Valid
2	Staff using information on library digital resources is accurate.	1	0	1	1	1	0.8	Valid
3	Staff using information on library digital resources is comprehensive	1	1	1	1	1	1	Valid
4	Staff using the papers and journals in the digital resources of the library are of high quality.	1	1	1	1	0	0.8	Valid
5	Staff using the subject materials covered in the digital resources of the library are extensive	1	1	1	1	1	1	Valid

NO.	digital resource management for staff in Guangxi universities	Expert					IOC	Validity
		1	2	3	4	5		
	Coverage.							
6	Staff using utilized in the digital resources of the library continuously update and expand.	1	1	1	1	1	1	Valid
7	Staff using the digital resources of the library have their own built-in databases.	1	1	1	0	1	0.8	Valid
8	Staff using the digital resources of the library utilized are helpful.	1	1	1	1	1	1	Valid
9	Staff using the content of the digital resources in the library is highly distinguishable from other resources.	1	1	1	1	1	1	Valid
10	Staff using the search results from the library's digital resources highly correlate with the required digital resources.	0	1	1	1	1	0.8	Valid
11	Staff accessing the digital resources of the library encompass a wide array of multimedia content such as videos and audios	1	1	1	1	1	1	Valid
	3.Information servise quality							
1	Staff enhances the academic research and efficiency by using	1	1	1	1	1	1	Valid

NO.	digital resource management for staff in Guangxi universities	Expert					IOC	Validity
		1	2	3	4	5		
	he university library's information service.							
2	Staff training and guidance through the library's information service offers .	1	1	0	1	1	0.8	Valid
3	Staff using the library's digital resources can get the receives swift responses from customer service.	1	1	1	1	1	1	Valid
4	Staff using the library's digital resources encounter difficulties can be addressed with precision.	1	1	1	1	1	1	Valid
5	Staff using the library's digital resources can get subject librarianship services available .	1	1	1	1	1	1	Valid
6	Staff can get specialized academic guidance from Subject librarians .	1	1	1	1	1	1	Valid
7	Staff can get personalized recommendation services from the digital library .	1	1	1	1	1	1	Valid
8	Staff can get multilingual service functionalities from the digital library.	1	1	1	1	0	0.8	Valid

NO.	digital resource management for staff in Guangxi universities	Expert					IOC	Validity
		1	2	3	4	5		
9	Staff's opinions and suggestions on the quality of information services are effectively addressed and feedback is provided.	1	0	1	1	1	0.8	Valid
10	Staff can get long-term resource storage and preservation provides from the library's digital information service.	1	1	1	1	1	1	Valid
11	Staff can get constantly updated with convenient new features from library digital information service.	1	1	1	1	1	1	Valid
12	Staff can get usage offers tutorials and guides from library digital information service.	1	1	1	1	1	1	Valid
	4.Intention to use							
1	Staff frequently use the digital library's information retrieval feature.	1	1	1	1	1	1	Valid
2	Staff's meets needs can be satisfied from the digital library's information retrieval system .	1	0	1	1	1	0.8	Valid
3	staff's requirements can be accurately understand by the digital library's information service.	1	1	1	0	1	0.8	Valid

NO.	digital resource management for staff in Guangxi universities	Expert					IOC	Validity
		1	2	3	4	5		
4	Staff's learning and research efficiency can be enhanced by the digital library .	1	1	1	1	1	1	Valid
5	Staff using the information retrieval system of the digital library is reliable and accurate.	1	1	1	1	1	1	Valid
6	Staff can achieve their learning and research goals more easily and conveniently using the digital library.	1	1	1	1	1	1	Valid
7	Staff enjoy using the library's digital resources	1	0	1	1	1	0.8	Valid
8	Staff would recommend the digital library to others.	0	1	1	1	1	0.8	Valid
9	Staff's expectations and requirements can be fulfilled aligns with by the digital library system .	1	1	1	1	1	1	Valid
10	Staff using with peace of mind due to the digital library's information service prioritizes privacy.	1	1	1	1	1	1	Valid
5.User satisfaction								
1	Staff is satisfied with the overall user experience of the digital library	1	1	1	1	0	0.8	Valid

NO.	digital resource management for staff in Guangxi universities	Expert					IOC	Validity
		1	2	3	4	5		
2	Staff finds the user interface of the digital library clear and aesthetically pleasing	1	1	1	1	1	1	Valid
3	Staff is satisfied with the loading speed of the digital library	1	1	0	1	1	0.8	Valid
4	Staff is satisfied with the service quality of the digital library.	1	1	1	1	1	1	Valid
5	Staff believes the information quality in the digital library is high.stimulate their motivation and enthusiasm.	1	0	1	1	1	0.8	Valid
6	Staff finds the resources provided by the digital library (e-books, papers, audio-visual materials, etc.) to be sufficient	1	1	1	0	1	0.8	Valid
7	Staff believes the digital library makes research and work more efficient.	1	1	1	1	1	1	Valid
8	Staff thinks the technical support from the digital library is effective	1	1	1	1	1	1	Valid
9	Staff needs based on the digital library frequently updates digital resources	1	1	1	1	1	1	Valid
10	Staff finds the categorization and tagging of the digital library easy to understand and use	1	1	1	1	1	1	Valid

NO.	digital resource management for staff in Guangxi universities	Expert					IOC	Validity
		1	2	3	4	5		
	6.Individual benefit							
1	Staff believe the digital library facilitates their academic research.	1	1	1	1	1	1	Valid
2	Staff think the digital library saves time in searching for information.	0	1	1	1	1	0.8	Valid
3	Staff consider the quality of resources provided by the digital library improves their learning efficiency.	1	1	1	0	1	0.8	Valid
4	Staff believe the information provided by the digital library enables better decision-making.	1	1	1	1	1	1	Valid
5	Staff feel the digital library makes the research and work process more enjoyable.	1	1	1	1	1	1	Valid
6	Staff believe the resource diversity of the digital library contributes to holistic development	1	1	1	1	1	1	Valid
7	Staff believe the digital library promotes self-directed learning.	1	1	1	1	1	1	Valid
8	Staff think the digital library contributes to their career development.	1	1	1	1	0	0.8	Valid

NO.	digital resource management for staff in Guangxi universities	Expert					IOC	Validity
		1	2	3	4	5		
9	Staff believe courses or tutorials provided by the digital library are very helpful.	1	1	1	1	1	1	Valid
10	Staff believe the digital library allows easier access to the latest information in their industry or academic field.	1	1	1	1	1	1	Valid

2. Reliability Analysis

Simplified Format of Cronbach's Reliability Analysis

Number of Items	Sample Size	Cronbach's Alpha Coefficient
64	30	0.981

From the table above, it can be seen that the reliability coefficient value is 0.981, which is greater than 0.9, indicating that the quality of the research data reliability is high. Regarding the "α coefficient with deleted items," the reliability coefficient does not significantly increase when any item is deleted. Therefore, it indicates that the items should not be deleted. Regarding the "CITC value," the CITC values for all analyzed items are above 0.4, indicating that there is a good correlation between the analyzed items, which also indicates a good reliability level. In summary, the reliability coefficient value of the research data is higher than 0.9, which comprehensively indicates high data reliability quality and can be used for further analysis.

3. Adaptability Analysis

KMO and Bartlett's tests

KMO value		**0.991**
Bartlett's sphericity test	**Approximate chi-square**	**22572.517**
	df	**2016**
	p-value	**0.000**

The KMO and Bartlett tests were used to validate the adaptability. From the table above, it can be seen that the KMO value is 0.991, which is greater than 0.8, indicating that the research data is highly suitable for extracting information (which indirectly reflects good adaptability).

Appendix E

Certificate of English

BANSOMDEJCHAOPRAYA
RAJABHAT UNIVERSITY

This is to certify that

Ms. Yu Yanna

Achieved BSRU English Proficiency Test (BSRU-TEP) level

C1

Given on 25th January 2021

(Assistant Professor Dr Kulsirin Aphiratvoradej)

Director

Appendix F

The Document for Acceptance Research

ที่ อว ๐๖๑๑.๐๑/ว๓๔๕๑

มหาวิทยาลัยราชภัฏเชียงราย
อำเภอเมือง จังหวัดเชียงราย ๕๗๑๐๐

๖ มิถุนายน ๒๕๖๗

เรื่อง ยืนยันตอบรับการตีพิมพ์บทความ

เรียน Mrs.Yu Yanna, Associate Professor Dr.Niran Sutheeniran, Assistant Professor Dr. Pinyapat Pargudthong, Assistant Professor Dr. Sarayuth Sethakhajorn and Assistant Professor Dr. Patchara Dechhome

ตามที่ท่านให้ความสนใจส่งบทความ เรื่อง "Digital Resource Management Strategies for Staff in Guangxi Universities" เพื่อตีพิมพ์ในวารสารครุศาสตร์วิชาการ มหาวิทยาลัยราชภัฏเชียงราย ซึ่งเป็นวารสารวิชาการที่มีผู้ทรงคุณวุฒิในการพิจารณาบทความ จำนวน ๓ ท่าน ซึ่งไม่เป็นผู้มีส่วนได้ส่วนเสียหรือสังกัดเดียวกันกับผู้นิพนธ์ และอยู่ในฐานข้อมูลของศูนย์ดัชนีการอ้างอิงวารสารไทย (TCI) กลุ่มที่ ๒ และทางกองบรรณาธิการได้แจ้งให้ท่านปรับแก้ตามข้อเสนอแนะของผู้ทรงคุณวุฒิ ตามความทราบแล้วนั้น

บัดนี้ ทางกองบรรณาธิการฯ ได้รับบทความที่มีการแก้ไขจากท่านเรียบร้อยแล้ว และมีความยินดีจะแจ้งให้ท่านทราบว่า บทความดังกล่าวของท่านจะได้รับการตีพิมพ์ในวารสารครุศาสตร์วิชาการ มหาวิทยาลัยราชภัฏเชียงราย เล่มปีที่ ๑๐ ฉบับที่ ๑ (มกราคม – เมษายน ๒๕๖๘)

จึงเรียนมาเพื่อโปรดทราบ และขอขอบคุณที่ท่านให้ความสนใจส่งบทความเพื่อตีพิมพ์กับทางวารสารครุศาสตร์วิชาการ มหาวิทยาลัยราชภัฏเชียงราย

ขอแสดงความนับถือ

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