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A Network of Knowledge: A New Model for Collaborative Digital Reference Services in Iran's Top Universities

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Abstract

Purpose: The study aims to develop a model for collaborative digital reference services among central libraries in Iran's leading universities. This model seeks to improve access to information, enhance user collaboration, and promote knowledge sharing to elevate reference services.

Methodology: This applied research employs a descriptive survey design. The research sample consists of 13 library directors and 42 reference librarians from central libraries of the selected universities. Two researcher-developed questionnaires were used to gather the perspectives of managers and librarians on the implementation of collaborative reference services. Content validity was verified by nine experts in knowledge and information science, while Cronbach's alpha was used to assess reliability. Data analysis was conducted using SPSS, Excel, and Visio software.

Findings: The key elements for establishing collaborative reference services include users, user interfaces, electronic resources, librarians, telecommunications infrastructure, software and hardware facilities, and budget. Participants emphasized the importance of providing digital reference services within libraries and fostering collaboration among central libraries. However, significant barriers to implementation were identified, including inadequate telecommunications infrastructure, limited hardware facilities, and insufficient financial support from relevant authorities.

Conclusion: The study proposes a conceptual and practical model aimed at meeting the needs of the academic community and facilitating the circulation of knowledge. The model focuses on the principles of knowledge-based collaboration, aiming to create an integrated and participatory platform for accessing information and knowledge. Within this framework, students and faculty actively engage with information specialists in a digital space to exchange knowledge and enhance research efforts.

Value: This study offers a practical model for implementing collaborative digital reference services in Iran's top university libraries. It provides valuable insights for library managers, policymakers, and researchers, highlighting key elements and barriers to implementation. The findings contribute to the existing literature and offer actionable strategies to improve information access, enhance collaboration, and facilitate knowledge sharing in academic libraries.

Keywords: *Digital Reference Services, Collaborative Digital Reference Services, Academic Central Libraries*

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Extended abstract

Introduction: Digital reference services have evolved from traditional library reference services, with collaborative digital reference services representing an advanced form. These services involve the referral of users' queries to specialists at other institutions, offering benefits such as increased information access, enhanced service quality, greater efficiency, and cost reduction. Collaborative services enable dynamic interaction between students, professors, and knowledge specialists, facilitating access to information for research and academic purposes in a digital environment. Despite their advantages, implementing these services presents challenges, including the need for standardized procedures, intellectual property considerations, appropriate technical infrastructure, and staff training. Nevertheless, collaborative digital reference services are essential in academic libraries, where they can increase student satisfaction, improve education and research quality, transform libraries into dynamic centers, and leverage new technologies to deliver innovative services.

Purpose: This study aims to propose a model for collaborative digital reference services among the central libraries of Iran's top universities. The model focuses on the requirements and best practices for implementing these services, offering a practical framework for the academic community.

Methodology: The study is applied in nature and uses a descriptive survey design. The research population comprises 13 central library managers and 42 reference librarians from leading universities in Iran. These libraries were selected for their superior resources and services compared to other university libraries. The research utilized two researcher-made questionnaires to gather the perspectives of managers and librarians on the feasibility of implementing collaborative digital reference services. To assess content validity, the questionnaires were reviewed by nine experts in knowledge and information science. Reliability was measured using Cronbach's alpha, yielding values of 0.76 for the managers' questionnaire and 0.79 for the librarians' questionnaire. Data analysis was conducted using SPSS, Excel, and Visio software.

Findings: The study found that most libraries use a combination of traditional and digital methods to provide reference services, including face-to-face interactions, telephone, email, and instant messaging. Only a few libraries employ specialized digital reference software. Through a review of literature and theoretical frameworks on collaborative digital reference services, the key elements for establishing such services were identified and organized into a conceptual model. These elements include users, user interface, electronic resources, librarians and information specialists, telecommunications infrastructure, software and hardware facilities, and budget.



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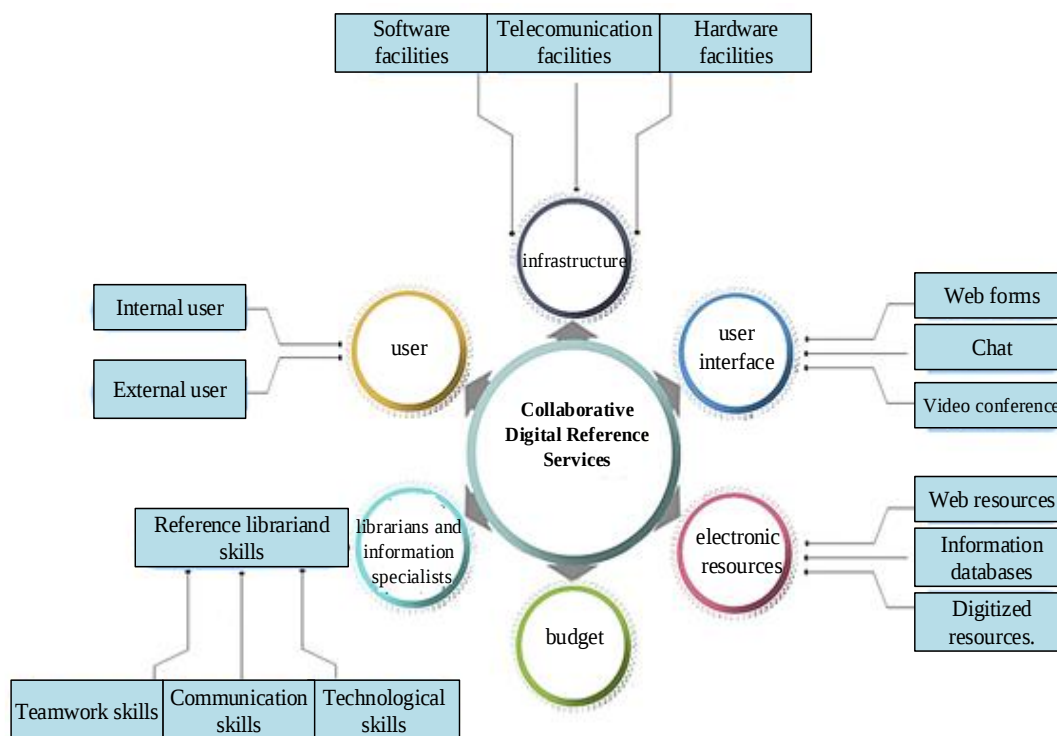


Fig1. The main elements of establishing collaborative digital reference services

Over 90% of managers and librarians support the idea of collaborative services. However, challenges were noted, particularly the lack of adequate telecommunications infrastructure, hardware facilities, and financial support from relevant authorities. The lack of sufficient information resources was identified as a less significant barrier.

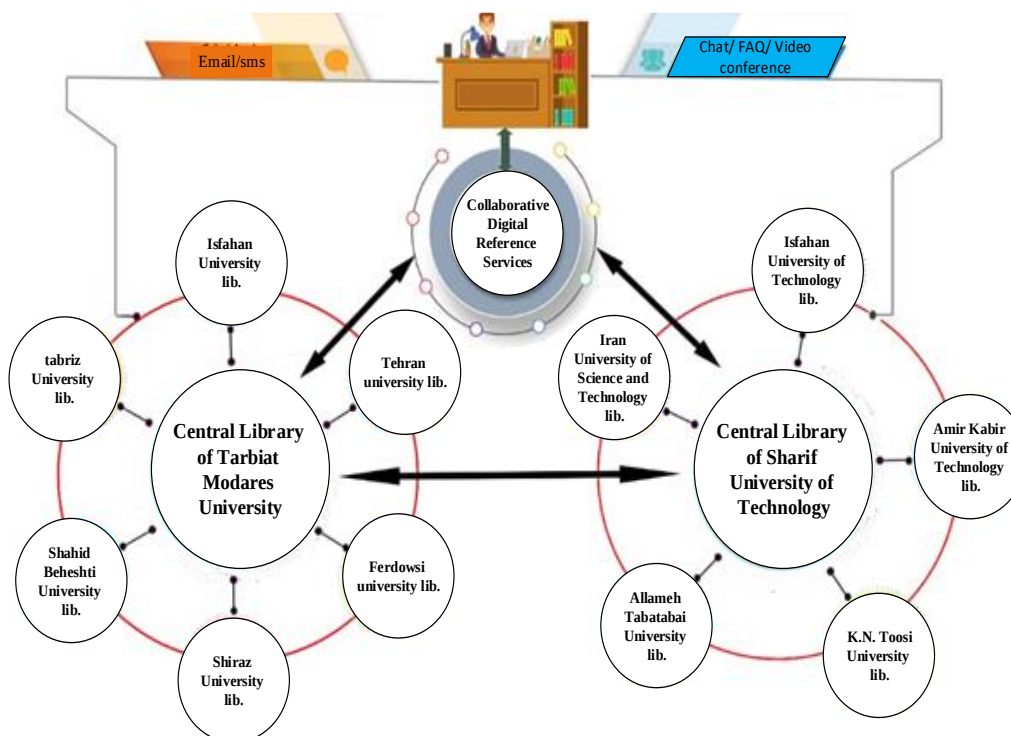


Fig2. Proposed model for providing collaborative digital reference services in the central libraries of top-tier universities in Iran.



A proposed model for collaborative digital reference services was developed, featuring a pyramidal structure. At the top, central management would oversee coordination and supervision, while subgroups at specialized universities would handle more technical queries.

Conclusion: While managers and librarians demonstrate readiness to collaborate, concerns remain regarding the financial support and allocation of necessary resources, such as hardware and software, for implementing collaborative digital reference services. Specialized human resources were identified as a crucial element in the successful deployment of these services. The study emphasizes that collaborative digital reference services can be implemented in Iran's top universities, provided that financial, human resource, and technical barriers are addressed. The proposed model focuses on collaboration, specialized human resources, sufficient budgets, and user-friendly interfaces. Developing a planning body, setting responsibilities, and conducting continuous evaluations will be crucial for the successful implementation of the services. The findings of this study provide valuable insights for policymakers, library managers, and researchers seeking to improve library services. Additionally, the research encourages further studies to refine the implementation model and expand collaborative digital reference services across academic institutions.

Value: This study contributes significantly to the field of library and information science by developing a model for collaborative digital reference services tailored to the context of Iran's top universities. It bridges the gap between theory and practice by proposing a structured and adaptable framework that can guide libraries in creating effective collaborative systems. The study's value lies in its identification of the key elements and barriers to successful implementation, as well as its practical suggestions for overcoming these challenges. This research is valuable to policymakers, library managers, and researchers seeking to improve the digital service landscape in academic libraries, facilitating greater access to information, enhancing user satisfaction, and promoting knowledge exchange in the academic environment. Furthermore, it offers a foundation for future research on digital collaboration in academic libraries, with potential applicability to libraries in other countries or regions facing similar challenges.

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