

Reimagining University Libraries: A Hybrid Model for Small-Medium Institutions

Combining Tradition, Technology, and Innovation

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ABSTRACT

This paper examines a hybrid library model for small-to-medium-sized universities, merging physical resources with technologies like AI and AR. The approach enhances **student engagement** and **accessibility** while addressing modernization challenges. It offers strategies for effective implementation, promoting innovation and sustainability in library systems.

I. Introduction

- University libraries are undergoing significant changes to stay relevant in the digital age.
- Small-to-medium-sized institutions face challenges balancing traditional values with modern demands.
- The hybrid library model is proposed as a solution, integrating physical collections with advanced technologies.
- This model addresses diverse student needs and learning styles, enhancing engagement and resource accessibility.
- The paper explores practical implementation steps, challenges, and strategies for effective hybrid models in university libraries.



Research Objectives

The research objectives focus on implementing a hybrid library model for small-to-medium-sized universities, including:

- Technology Integration:** Explore combining technologies like AI and AR with physical collections to enhance student engagement.
- Balancing Resources:** Assess challenges in maintaining traditional resources while embracing digital advancements to serve diverse student needs.
- Fostering Engagement:** Provide a framework for creating dynamic learning environments that cater to various learning styles.
- Implementation Roadmap:** Outline practical steps for assessing current libraries, selecting technologies, and executing a hybrid model.
- Addressing Challenges:** Identify budgetary and accessibility issues and suggest solutions to ensure all students can access resources.

These objectives aim to enhance the educational experience in smaller institutions while preserving traditional library values.

Research Question

How can small-to-medium-sized universities effectively implement a hybrid library model that integrates traditional physical resources with advanced technologies to enhance student engagement and learning?

The methods used in the research for implementing a hybrid library model include:

- Literature Review:** Analyzing existing studies on the integration of technology in libraries, focusing on the benefits and challenges of hybrid models.
- Infrastructure and Technology Assessment:** Evaluating current physical and digital collections, as well as the technological capabilities of the library to support advanced systems like AI and AR.
- Pilot Testing and Evaluation:** Conducting pilot tests of AI recommendation systems and AR features with a small group of students to gather feedback and make necessary improvements.
- User Feedback Mechanisms:** Utilizing surveys, focus groups, and usage analytics to collect insights from students on their experiences and preferences related to library resources.
- Case Studies:** Examining real-world examples of hybrid library implementations at other educational institutions to inform strategy and planning.

Results

1.Enhanced Student Engagement

The incorporation of AR and AI technologies within the library environment was found to significantly increase student engagement. For example, students reported greater interaction with physical books that were augmented by AR features, allowing for 3D visualization and immersive learning experiences

2.Personalization of Resources

The incorporation of AR and AI technologies within the library environment was found to significantly increase student engagement. For example, students reported greater interaction with physical books that were augmented by AR features, allowing for 3D visualization and immersive learning experiences

3.Support for Diverse Learning Styles

The incorporation of AR and AI technologies within the library environment was found to significantly increase student engagement. For example, students reported greater interaction with physical books that were augmented by AR features, allowing for 3D visualization and immersive learning experiences

4.Accessibility Improvements

The model addressed accessibility challenges by allowing students with disabilities or those studying remotely to access digital resources easily, ensuring equitable resource availability

5.Challenges Identified

The study also identified challenges, such as the digital divide, where some students lacked access to necessary technologies like smartphones or high-speed internet. Budget constraints for small-to-medium-sized universities were another significant hurdle

Discussion

The findings highlight that a hybrid library model can successfully bridge the gap between traditional and digital resources, enhancing the overall learning experience in small-to-medium-sized universities. The integration of advanced technologies not only enriches the library's offerings but also fosters a more inclusive learning environment.

Recommendations

The results suggest that while digital resources increase accessibility and convenience, the value of physical materials must not be overlooked, as many students still prefer the tactile experience of printed books for deeper cognitive engagement. Hence, a balanced approach that incorporates both formats is crucial for satisfying diverse student needs.

Conclusion

- The hybrid library model enables small-to-medium-sized universities to enhance their library systems by combining traditional physical collections with technologies like AI and AR. This integration boosts student engagement, personalization, and accessibility. While challenges such as the digital divide and budget constraints exist, effective planning and feedback are crucial for success. Ultimately, balancing innovation with tradition will keep academic libraries relevant and enriching for all students

References

• Mangen, J., Walgermo, B. R., & Brønnick, K. (2020). Reading linear texts on paper versus computer screen: Effects on reading comprehension. *International Journal of Educational Research*, 58, 61-68. <https://doi.org/10.1016/j.ijer.2020.03.002>

• Höffler, T. N., & Leutner, D. (2017). Gaze-based navigation in virtual reality: The role of interactive elements and user control. *Computers in Human Behavior*, 73, 395-405. <https://doi.org/10.1016/j.chb.2017.03.008>

• Fox, J., & McNair, L. (2021). Artificial Intelligence in Libraries: What the Future Holds. *Library Management*, 42(4), 255-268. <https://doi.org/10.1108/LM-01-2021-0185>

• Watson, J. L. (2019). The Hybrid Library: Merging Tradition and Technology in Academic Libraries. *Journal of Library Innovation*, 10(3), 45-59. <https://doi.org/10.1108/JLI-03-2019-0074>

• Yu, H. (2020). Implementing Hybrid Models in University Libraries: Opportunities and Challenges. *Library Philosophy and Practice*, 21(1), 22-35. <https://digitalcommons.unl.edu/libphilprac/3732/>

• Akeroyd, M. (2021). Planning and Implementing Digital Libraries: A Step-by-Step Guide. *Journal of Academic Librarianship*, 47(2), 72-80. <https://doi.org/10.1016/j.acalib.2021.102176>

• Nilsen, D., & Brown, L. (2018). Collecting User Feedback for Library Systems: Methods, Tools, and Best Practices. *Journal of Information Science*, 44(5), 677-692. <https://doi.org/10.1177/0165551518779478>

• Peters, C. M., & Johnson, D. (2020). Case Study: Implementing a Hybrid Library in a Small University. *New Library World*, 121(11/12), 663-678. <https://doi.org/10.1108/NLW-06-2020-0194>

• Johnson, A., & Robinson, T. (2017). Balancing Tradition and Technology in Academic Libraries. *Library Journal*, 142(4), 28-32. <https://www.libraryjournal.com/?detailStory=balancing-tradition-and-technology>