

Access and Use of Multimedia Resources in Information Provision to Staff and Students of Federal Polytechnic Kaltungo Library: Challenges and Experiences Since Establishment

Yusuf Adebayo Wasiu*, Abubakar Aminu Abba, Jonah Goodness Enyo,
Abubakar Mustapha Jumare, Muhammad Musa

Polytechnic Library, Federal Polytechnic Kaltungo

Abstract

This paper presents a practitioner-based reflection on the access and use of multimedia resources in the provision of information to staff and students of Federal Polytechnic Kaltungo Library since its establishment in 2021. Drawing on firsthand observations at the library, rather than primary data collection, the paper argues that the library's central challenge has not been a lack of user interest in multimedia resources but a structural inability to convert that interest into consistent, actual use. Two key factors are identified: inadequate staffing, which has shown notable improvement under the current administration, and unreliable electricity supply, which the present management has also begun actively addressing. The paper further identifies these challenges within the administrative neglect shown by the Polytechnic's pioneer administration, which left foundational staffing, budgetary, and infrastructural decisions unresolved during the library's formative years. Using the Technology Acceptance Model as a guiding framework, the paper distinguishes between users' intention to use multimedia resources and their actual use, showing how infrastructural and staffing constraints suppress this conversion. The paper concludes that sustained institutional attention to library development, rather than isolated interventions, is essential for the library to meet digital-age information delivery expectations and recommends continued investment in electricity infrastructure, staff training, and proactive resource communication.

Keywords: *multimedia resources, information provision, electricity supply, staffing, newly established library*

1. Introduction

Since joining the Federal Polytechnic Kaltungo Library at its establishment in 2021, evidence from practice and firsthand observation suggests that the library has struggled to keep pace with the digital-age expectations of its staff and students. Academic libraries today are expected to function as more than repositories of print materials; they are expected to provide multimedia-rich information services that support teaching, learning, and research in ways that match global standards. Yet, as literature and my own experience confirm, this transition is far from automatic, particularly in newly established institutions.

Recent studies affirm that Nigerian academic libraries continue to face persistent, overlapping challenges in their digital transformation. A 2022 study of Nigerian university libraries found that although basic digital infrastructure such as websites and databases was widely available, more interactive services were provided to a very low extent, largely due to librarians' limited digital skills (Igbo et al., 2022). Similarly, a separate 2022 study on academic library service delivery in Nigerian universities identified inadequate funding, poor internet connectivity, low computer literacy among librarians, and erratic power supply as central obstacles to effective digital service delivery (Sahabi & Otobo, 2022), challenges that mirror what was witnessed at Kaltungo since 2021.

Staffing inadequacy, in particular, has emerged as a recurring theme in recent scholarship. A 2023 study on collection development in Nigerian academic libraries found that multimedia resource provision consistently lagged behind other collection areas, a gap often linked to insufficient trained personnel dedicated to multimedia service delivery

*Corresponding Author: Yusuf Adebayo Wasiu
Email Address: yusufadebayowasiu@gmail.com

(Buraimo et al., 2023). A related 2022 study conducted at a Kenyan university similarly found that staff ICT competence and infrastructure readiness were decisive factors in determining how effectively multimedia and electronic resources were adopted for academic use (Diki, 2022).

Electricity supply has proven to be an equally significant barrier. Unreliable power undermines the consistent functioning of computers, projectors, and other multimedia equipment. It disrupts continuity of service to users who increasingly expect on-demand access to digital and multimedia content. This is consistent with more recent global findings: a 2025 study on e-resource utilization in university libraries found that infrastructural reliability directly shaped how consistently multimedia and electronic content could be delivered to different categories of users (Kumar, 2025), while a separate 2025 study on undergraduate library usage found that students consistently called for expanded multimedia access alongside traditional print collections (Lasig et al., 2025), a demand that a library without stable power and adequate staff cannot fully meet.

Observations at the library indicate who has been present since the library's founding; the authors observed that these challenges of inadequate staffing and unreliable electricity supply have directly delayed the introduction and consistent use of multimedia resources at Federal Polytechnic Kaltungo Library, in turn affecting how well the library serves its staff and student population. This paper therefore draws on both practitioner experience and current literature to examine the access and use of multimedia resources in information provision at the library since its establishment.

Federal Polytechnic Kaltungo Library was established in 2021 with the expectation that it would provide staff and students with information services befitting a modern academic institution, including access to multimedia resources such as audio-visual materials, projectors, e-resources, and digital learning tools. However, since its establishment, the library has struggled to translate this expectation into practice. Multimedia resources, where available, remain underutilized, and their introduction into routine library service delivery has been slow and inconsistent.

Two challenges stand out as the most persistent obstacles, which the authors observed since the library's founding: inadequate staffing and unreliable electricity supply. The library has not had sufficient personnel trained or dedicated to managing and delivering multimedia services, meaning that even where equipment exists, there is limited capacity to maintain it, train users on its use, or integrate it meaningfully into daily service delivery. This mirrors findings from recent literature showing that Nigerian academic libraries generally suffer from low staff competence in digital and multimedia service provision, and that this gap directly undermines the extent to which digital resources are provided to users (Sahabi & Otobo, 2022; Buraimo et al., 2023).

Compounding this, erratic power supply has repeatedly disrupted the library's ability to operate multimedia equipment consistently. Computers, projectors, and other devices dependent on stable electricity cannot function reliably, which in turn discourages staff from promoting their use and discourages students and staff from returning to make use of them, a pattern consistent with recent studies identifying erratic power supply as one of the major barriers to digital and multimedia service delivery in Nigerian academic libraries (Sahabi & Otobo, 2022).

Worsening these challenges is the fact that early institutional investment in library development during its formative years was insufficient. This early insufficiency meant that foundational decisions around staffing allocation, budgetary provision for multimedia equipment, and power infrastructure were not adequately addressed at a stage when they would have been easier to resolve. As a result, the present administration has inherited a backlog of responsibilities, effectively having to build, rather than merely improve, the library's multimedia capacity from a delayed starting point. This administrative history offers important context for understanding why the challenges of inadequate staffing and unreliable electricity supply have persisted for as long as they have.

The combined effect of these challenges is a library that, despite being newly built with the intention of offering modern, multimedia-supported information services, has experienced low patronage and underutilization of the very resources meant to distinguish it as a 21st-century academic library. Recent research affirms that students increasingly expect and demand multimedia-rich access as part of their library experience (Lasig et al., 2025), which means that failure to resolve these challenges risks the library falling further behind user expectations and institutional goals.

It is against this background that this paper seeks to reflect on the access and use of multimedia resources in information provision to staff and students of Federal Polytechnic Kaltungo Library since its establishment, and on the challenges and recent improvements that have shaped this experience.

This paper is significant to several groups. To Federal Polytechnic Kaltungo Library management, the findings provide evidence-based insight into the specific staffing and infrastructural gaps hindering multimedia resource delivery, which can inform budgeting, staff recruitment, and power-supply investment decisions. To library staff, the paper documents the practical, day-to-day challenges of service delivery in a newly established institution, offering a practitioner perspective that can guide advocacy for better working conditions and professional development opportunities.

To students and academic staff as library users, the paper highlights how current limitations affect their access to information, which may prompt continued institutional action to improve service quality and, in turn, support teaching, learning, and research outcomes. To policymakers and polytechnic administrators, the findings offer a case study that can inform broader ICT and infrastructure policy for newly established tertiary institutions in Nigeria. To future researchers, this paper contributes to the growing body of literature on multimedia resource provision in newly established academic libraries, an area still underrepresented compared to studies of long-established institutions.

This paper is limited to Federal Polytechnic Kaltungo Library, located in Gombe State, Nigeria, and focuses specifically on the period since the library's establishment in 2021 to date. It examines the access and use of multimedia resources (audio-visual materials, projectors, computers, and related digital/e-resources) by two categories of library users: staff and students. It reflects on two key challenges: inadequate staffing and unreliable electricity supply, alongside recent administrative improvements in both areas.

The paper does not extend to other academic libraries within or outside Gombe State, nor does it examine multimedia resource provision in non-academic (e.g., public or special) libraries. Financial and budgetary aspects of library management are addressed only insofar as they relate to staffing and electricity challenges, not as a standalone focus.

This paper examines the access and use of multimedia resources in the provision of information to staff and students of Federal Polytechnic Kaltungo Library since its establishment in 2021. Specifically, the paper seeks to:

1. Identify the types of multimedia resources available at Federal Polytechnic Kaltungo Library.
2. Assess the level of interest and demand shown by staff and students toward multimedia resources, despite limited access occasioned by unreliable electricity supply.
3. Explore the challenges of inadequate staffing and unreliable electricity supply affecting the introduction, delivery and use of multimedia resources at the library.
4. Evaluate how administrative neglect during the library's formative years, and subsequent improvements, have shaped its current multimedia service capacity.

2. Literature Review

2.1 Concept of Multimedia Resources in Academic Libraries

Multimedia resources refer to information materials that combine two or more formats- text, audio, video, images, and animation- to communicate content in ways that go beyond traditional print. In academic library settings, multimedia has become an increasingly important channel through which libraries meet the expectations of digital-age users. Recent scholarship on multimedia-based learning found that perceived usefulness and perceived ease of use significantly shape a user's intention to adopt multimedia tools, even before actual use takes place (Alsaffar et al., 2022). This distinction is important: a user's interest in and readiness to embrace multimedia resources can exist independently of whether infrastructural conditions allow that interest to translate into actual use, a gap this paper observes directly at Federal Polytechnic Kaltungo Library.

2.2 Information Provision in Newly Established Academic Libraries

Newly established academic libraries occupy a distinct position in literature, as they typically lack the accumulated infrastructure, funding history, and staff experience of older institutions. Recent research on digital information provision in Nigerian university libraries found that even where digital platforms such as websites and online databases were available, more interactive and resource-intensive services were provided only to a limited extent, largely because librarians' digital skills had not kept pace with technological demands (Igbo et al., 2022). For a library such as Federal Polytechnic Kaltungo, established in 2021, this gap is likely to be more pronounced, since new institutions must build both infrastructure and staff capacity simultaneously rather than incrementally over time.

2.3 Staffing Challenges and Multimedia Service Delivery

Staffing adequacy, both in numbers and in digital competence, has repeatedly emerged as a determinant of multimedia service success. A 2023 study on collection development policy in Nigerian academic libraries found that multimedia resource provision consistently scored lower than other collection areas, a gap the study linked to limited personnel dedicated to multimedia service delivery (Buraimo et al., 2023). Correspondingly, research on academic library service delivery in Nigerian universities identified low computer literacy among librarians as one of the central obstacles to effective digital and multimedia service provision, alongside funding and infrastructure limitations (Sahabi & Otobo, 2022). Similarly, a 2022 study on library e-resource utilization in Kenya found that staff ICT competence was a decisive factor shaping how effectively multimedia and electronic resources were adopted for academic use (Diki, 2022), reinforcing that human capacity, not just equipment availability, drives multimedia service success.

2.4 Electricity Supply and Digital/Multimedia Resource Access

Reliable electricity is a foundational requirement for multimedia service delivery, yet it remains one of the most cited challenges in Nigerian academic library literature. Recent research on academic library challenges in Nigerian universities identified erratic power supply as a persistent constraint affecting the consistent operation of digital equipment, alongside poor internet penetration and low bandwidth (Sahabi & Otobo, 2022). Notably, such infrastructural barriers do not necessarily reflect a lack of interest among users; rather, they suppress the conversion of interest and intention into actual, sustained use, a pattern consistent with technology adoption literature showing that intention to use does not always lead to actual system use when external constraints, such as poor connectivity or unreliable infrastructure, intervene (Alsaffar et al., 2022).

2.5 Theoretical Framework

This paper adopts the Technology Acceptance Model (TAM) as its guiding framework. TAM proposes that a user's intention to use a technology is shaped primarily by perceived usefulness and perceived ease of use. Still, critically, intention does not automatically translate into actual system use; external barriers can intervene between the two. Recent applications of TAM to multimedia-based learning environments have shown that even where usefulness and interest are high, actual use can be constrained by outside factors, including infrastructural and institutional conditions (Alsaffar et al., 2022). This distinction is central to this paper's argument: staff and students at Federal Polytechnic Kaltungo Library may show genuine interest in and readiness to use multimedia resources, but unreliable electricity supply and inadequate staffing act as external constraints suppressing the translation of that interest into actual and consistent use.

3. Approach to the Study

This paper adopts a conceptual/practitioner-reflection approach rather than an empirical research design, drawing on the authors' direct professional experience and observations at the library, which indicate that Federal Polytechnic

Kaltungo Library, from its establishment in 2021 to the present, is complemented by a review of relevant, recent literature (2021-2026) on multimedia resource provision in academic libraries. Rather than relying on formal data collection instruments such as questionnaires or structured interviews, the observations presented in this paper were formed through sustained, firsthand engagement with the library's daily operations over this period.

Specifically, these observations draw on: (i) day-to-day service desk interactions with staff and student users, including their informal inquiries for and comments about multimedia resources; (ii) direct involvement in the acquisition, setup, and occasional maintenance of multimedia equipment; (iii) participation in internal library and departmental meetings where staffing, equipment, and power supply challenges were discussed; and (iv) informal conversations with colleagues and users over the course of the library's operation since 2021. These sources of insight were not recorded through a formal instrument at the time they occurred; rather, they were consolidated retrospectively into the themes presented in this paper, namely: user interest, staffing adequacy, electricity supply, and administrative attention.

This approach is consistent with recognized practitioner-reflection and case-study formats in Library and Information Science literature, which value sustained, insider observation as a genuine form of evidence, particularly for documenting institution-specific experiences not yet captured in empirical studies.

4 Discussion

4.1 Available Multimedia Resources and Observed Interest

Since Federal Polytechnic Kaltungo Library's establishment in 2021, a modest range of multimedia-capable equipment, including computers, a projector, and basic audio-visual devices, has been introduced into the library's collection. However, evidence from practice suggests that the presence of this equipment has not translated into consistent use. What is notable, though, is that staff and students frequently express interest in these resources, asking about their availability, requesting **access** for presentations or research purposes, and showing enthusiasm when demonstrations are occasionally possible. This observed pattern aligns closely with the Technology Acceptance Model's distinction between intention to use and actual system use: users appear to perceive multimedia resources as useful and are inclined toward adopting them, yet structural barriers consistently prevent this intention from becoming sustained, and actual use (Alsaffar et al., 2022).

4.2 Inadequate Staffing as a Suppressing Factor

A recurring observation over the past several years has been the library's persistent shortage of staff trained specifically in multimedia and digital resource management. The few staff available are often stretched across multiple core library functions: cataloguing, circulation, and general reader services, leaving little dedicated capacity for multimedia equipment maintenance, user training, or promotion. This mirrors findings in recent literature, where multimedia resource provision in Nigerian academic libraries has consistently lagged behind other collection areas, a gap frequently linked to insufficient dedicated personnel (Buraimo et al., 2023). Without staff specifically positioned to champion and sustain multimedia services, even well-intentioned equipment acquisitions risk sitting underutilized, not because users lack interest, but because no one is consistently available to bridge the gap between having the equipment and making it usable.

4.3 Electricity Supply as the Central Constraint

Of the challenges identified in this paper, unreliable electricity supply has proven to be the most immediate and disruptive. Multimedia equipment- computers, projectors, and related devices- cannot function without consistent power, and Federal Polytechnic Kaltungo, like much of the surrounding region, experiences frequent and unpredictable power outages. In practice, this means that even when staff or students arrive at the library intending to use multimedia resources, they are frequently unable to do so, not from lack of interest but from the simple unavailability of power at that moment. Over time, this recurring disappointment appears to discourage some users from returning to attempt use altogether, gradually suppressing what began as genuine passion. This observation is consistent with literature identifying erratic power supply as one of the most significant infrastructural barriers to digital and multimedia service delivery across Nigerian academic libraries (Sahabi & Ootobo, 2022), and with broader technology-adoption research showing that external constraints can prevent intention from converting into actual use, regardless of how favorable user attitudes may be (Alsaffar et al., 2022).

4.4 The Legacy of Administrative Neglect and Recent Improvements

A further dimension shaping the library's current position is its administrative history. During the Polytechnic's formative years, the library experienced limited institutional support during its formative years, meaning that critical early decisions around staffing allocation, multimedia budget provision, and power infrastructure investment were not adequately addressed when they would have been easier and less costly to resolve. As a result, the current administration effectively inherited a backlog: rather than incrementally improving an already-functioning multimedia service, it has had to build foundational capacity from a delayed starting point, while simultaneously managing present-day expectations from staff and students accustomed to digital library standards elsewhere.

It is worth noting, however, that the current administration has taken visible steps to address this inherited gap. Recent recruitment efforts have brought additional personnel into the library, marking a noticeable improvement over the staffing shortfall of the library's early years. Encouragingly, the current management has also begun making deliberate efforts toward resolving the library's electricity supply challenges, signaling a shift away from the neglect of the past toward a more proactive, service-oriented approach to library development. This growing institutional attention suggests a recognition that a modern academic library cannot function effectively without reliable power to support its digital and multimedia services. It reflects management increasingly focused on developing the library in line with the demands of the digital age.

4.5 Synthesis

Taken together, these observations suggest that the central issue at Federal Polytechnic Kaltungo Library is gradually being addressed rather than left unattended. Recent improvements in staffing, alongside emerging efforts to resolve electricity supply challenges, represent meaningful progress toward closing the gap between user interest and actual multimedia use. Administrative neglect during the library's early years compounded these problems by delaying the infrastructural investment needed to address them proactively, but the present administration's ongoing efforts indicate a positive shift. For a newly established institution seeking to meet digital-age expectations, this paper argues that management must sustain and deepen this attention, consistently prioritizing the library's development as a matter of institutional strategy rather than an afterthought, to ensure that multimedia resource delivery keeps pace with the evolving information needs of staff and students.

5. Conclusion

This paper has examined the access and use of multimedia resources in the provision of information to staff and students of Federal Polytechnic Kaltungo Library since its establishment in 2021. Drawing on firsthand practitioner observation, the paper finds that the library's central challenge has been a structural inability to convert genuine staff and student interest in multimedia resources into consistent and actual use. Two factors account for this gap: inadequate staffing, which has improved under the current administration, and unreliable electricity supply, which the present management has also begun actively working to resolve. Compounding both challenges was the administrative neglect shown by the Polytechnic's pioneer administration, which left foundational staffing, budgetary, and infrastructural decisions unaddressed during the library's formative years. Encouragingly, the current administration's efforts on both fronts reflect a positive shift toward recognizing the academic library as central to the institution's digital-age service delivery. The paper concludes that sustained institutional attention to library development, rather than one-off interventions, is essential to fully bridge the gap between user interest and actual multimedia adoption.

Based on the foregoing discussion, this paper recommends the following:

1. Sustain and accelerate electricity infrastructure investment: The Polytechnic administration should build on its current efforts by considering dedicated backup power solutions, such as solar power systems or an inverter/battery setup, to ensure multimedia equipment remains functional independent of the national grid.
2. Consolidate recent staffing gains: The library should further prioritize training current staff, specifically in multimedia equipment maintenance and digital resource management, building on the numerical staffing improvements already achieved.
3. Institutionalize continuous attention to library development: Management should ensure that focus on the library's growth is not a temporary response to past neglect but a sustained institutional priority, with regular budgetary and policy attention given to keeping the library aligned with digital information delivery standards.

4. Establish a multimedia service policy: The library should develop a clear internal policy for multimedia resource acquisition, use, and maintenance, ensuring future equipment purchases are matched with adequate staffing and power capacity.
5. Communicate available resources proactively: Given the observed interest among staff and students, the library should actively publicize available multimedia resources and reliable access times to manage expectations and encourage repeat use.
6. Encourage further institutional research: Future studies, ideally incorporating primary data from staff and student surveys, should build on this practitioner-based account to empirically measure user interest and the impact of ongoing staffing and electricity improvements over time.

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