



Evaluation of Barriers to Online Information Retrieval Access among Academic Staff: A Case Study of Federal College of Education, Zaria, Kaduna State, Nigeria

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Abstract

This study investigates the challenges encountered by Arabic academics at the Federal Collage of Education (FCE), Zaria, Nigeria, when retrieving online information resources. A quantitative case study design was employed, with a census sampling of all 29 academics in the Department of Arabic. Data were collected using a validated, pilot-tested questionnaire, achieving a 96.6% response rate (n=28). Descriptive statistics (frequency, percentages, mean scores) were used for analysis. The study is anchored in Wilson's (1996) Model of Information Behavior and the Technology Acceptance Model (Davis, 1989). Findings reveal that inadequate search skills (96.4%, mean=2.71), erratic power supply (92.9%, mean=2.6), difficulty in browsing (92.9%, mean=2.6), insufficient access to needed journals (92.9%, mean=2.6), slow Internet connectivity (89.3%, mean=2.5), and information overload (89.3%, mean=2.5) are the most critical barriers. Other challenges include poor ICT facilities, lack of office internet access, technophobia, and lack of printing facilities. The study concludes that without targeted information literacy training and substantial infrastructural improvements, effective information retrieval and academic productivity among this cohort will remain compromised. Recommendations include institution-led search skills workshops, dedicated power supply, and departmental internet connectivity.

Keywords: Online information Resource Access, Academic Staff, Federal Collage of Education, Zaria

Introduction

In the contemporary digital academic environment, the ability to efficiently search for and retrieve online information is fundamental to teaching, research, and publication. However, access to the internet does not automatically translate into effective information retrieval (Kinengyere, 2017). Academics, particularly those in specialized and often under-resourced fields such as Arabic studies, face multifaceted obstacles ranging from individual skill deficiencies to systemic infrastructural failures. According to Kumar and Zhang (2015), online information resources provide many advantages over traditional print resources, such as 24/7 access, universal access, saving physical space, linking, indexing and abstracting databases, accessibility from the user's home, office, or dormitory irrespective of whether or not the physical library is open, the ability to get usage statistics that are not available for print collections, and their relative ease of maintenance compared to print resources. Online Arabic information resources are convenient for search and access a vast amount of information within the shortest possible time. A good number of online Arabic databases are available on the Internet, which can be accessed free of charge or through a university's subscription to provide free online database access to their staff and students to support academic work and activities, especially in the areas of teaching, learning, and research, as well as self- and community-based development (Ukashatu, 2015). Globalization and digitization have created an environment characterized by information abundance, requiring electronic means to identify and access relevant scholarly materials (Obiora, 2014). Yet, for many academics in Nigerian colleges of education, persistent deficits in infrastructure



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and digital literacy severely constrain their ability to participate fully in the global knowledge economy. This problem is likely exacerbated in humanities disciplines like Arabic, where digital resources may be less integrated into pedagogical traditions. Arabic information resources refer to information resources written in Arabic on a variety of disciplines that are commonly found in the Arabic sections of various libraries and information centers. They are usually consulted by clients with Arabic backgrounds. Arabic information resources, could be defined as documents and other non-book resources in Arabic that are provided to meet the information demands of users with Arabic language background (Hafeez, 2021). Arabic information resources include books on Grammar (Nahwul-wadhihi), Philosophy (Falsafah), Logic (Mantiq), Rhetoric (Balagah), Morphology (Sarf), Literature (Adab), Philology (Fiqhul-luggah), Arud (Prosody), Arabic Dictionaries (Qamus) and Encyclopedias (Mausuah), Arabic magazines (Mujallah) and newspapers (Jaridah), and analysis of sentence structures (Al-I'rab) in print and electronic formats. They may include print journals, magazines, newspapers, print books, radio, and television broadcasting. The non-print or Internet-based formats include: e-journals, e-books, e-thesis, e-newspapers (HTML or Acrobat PDF), streaming videos, podcasting among others. While existing literature has documented challenges to online information retrieval in Nigerian higher institutions (Mamman & Magaji, 2022; Kefas & Gilbert, 2015), very few studies focus specifically on academics in Arabic departments within universities or colleges of education. This gap is significant because Arabic academics often rely on specialized, non-Latin -script databases and resources that demand distinct search competencies. Furthermore, no prior study has systematically examined how skill gaps and infrastructural deficits interact as compound barriers for this population. Therefore, this study addresses the following research question: What are the infrastructural and skill-based challenges facing Arabic academics at the Federal Collage of Education, Zaria, in their efforts to retrieve online information resources? By answering this question, the study aims to provide evidence-based recommendations for institutional policy and targeted capacity building.

Objective of the study

The objective of the study was to:

1. To Evaluate the challenges faced in accessing information resources by Academic Staff in the Department of Arabic, Federal College of Education Zaria.

Research Question

The following research question was raised to guide the study:

1. What are the challenges faced in accessing information resources by Academic Staff in the Department of Arabic, Federal College of Education Zaria?.

Literature Review

Theoretical Framework

Two complementary theories guide this study. First, Wilson's (1996) Model of Information Behavior posits that information-seeking is influenced by intervening variables, including individual (e.g., search skills), social (e.g., institutional support), and environmental (e.g., infrastructure) factors. This model helps explain why access alone does not guarantee successful retrieval. Second, the Technology Acceptance Model (TAM) (Davis, 1989) suggests that perceived ease of use and perceived usefulness determine technology adoption. Applying TAM, Arabic academics are unlikely to engage with online resources if erratic power and poor connectivity undermine ease of use, regardless of perceived usefulness.

Empirical Literature on Challenges to Online Information Retrieval

Several studies have documented barriers to electronic resource use in Nigerian and international contexts. Kefas and Gilbert (2015) found that irrelevant information, power outages, slow internet, information overload, and inadequate search skills were major challenges for postgraduate students at Modibbo Adama University of Technology, Yola. Abdullahi and Haruna (2020) reported that lack of basic ICT knowledge was the second most significant constraint after erratic power supply among college library users in Nigeria. Gbaje (2007) conducted a qualitative study using a purposive sampling technique to collect data from ten academic universities through an online survey. The findings of the study revealed that the shortage of skilled web technology among librarians, poor information technology infrastructure, and high cost of equipment have hindered Nigerian academic libraries from providing online information services. The study concludes that the demand for desktop access to electronic resources by the academic community stresses that Nigerian academic libraries must provide their services and resources online and remotely. Also, library schools must review their curricula



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to reflect the need in the work field, and the heads of libraries must also invest in the retraining of their staff by providing sponsorship to attend workshops and conferences organized by their professional bodies. Ali (2005), studying users at the Indian Institute of Technology (IIT) Delhi, found that most faced difficulty in browsing e-resources, and lack of printing facilities, terminals, and trained staff discouraged access. Wolman and Peritz (2013) identified limited time and a lack of effective retrieval skills as factors affecting Israeli academics' use of electronic databases. More recently, Mamman and Magaji (2022) found that poor internet connectivity, insufficient computer terminals, and inadequate ICT skills were major barriers for students in Taraba State higher institutions. Despite these contributions, none of the above studies specifically target Arabic academics in a Nigerian Federal Collage of Education, nor do they apply a dual theoretical lens to interpret findings. This constitutes the primary gap addressed by the present research. A quantitative, descriptive, cross-sectional survey design was adopted. A case study approach was used to bound the research to a single department (the Department of Arabic at Federal Collage of Education, Zaria, allowing for an in-depth census of all staff). Salih and Shal-Yaqub (2014) stated that this design was appropriate because the study focused on a single, well-defined unit: the Department of Arabic at Federal Collage of Education (FCE) Zaria. The target population comprised all 29 academic staff in the Department of Arabic at FCE Zaria during the 2021/2022 academic session (26 male, 3 female). Due to the small population size, a census sampling technique (total enumeration) was used, which is recommended when the population is manageable and a complete count is feasible (Morris, 2015). A structured questionnaire was developed based on the theoretical framework and prior literature. The instrument contained two sections: (A) demographic information, and (B) 12 items measuring challenges to online information retrieval, using a 3-point Likert scale (1=Not a Challenge, 2=Moderate Challenge, 3=Major Challenge). Content validity was established by three experts in information science and Arabic studies. A pilot test with 10 academics from a similar institution (Federal Collage of Education, Kano) yielded a Cronbach's alpha of 0.87, indicating high internal consistency. The pilot data were excluded from the final analysis. The questionnaire was administered in person by the researcher during a departmental meeting in March 2022. 29 copies distributed, 28 were returned fully completed (96.6% response rate). Ethical protocols included: written informed consent, anonymity of respondents, voluntary participation, and institutional permission from FCE Zaria. No incentives were offered. Data were analyzed using descriptive statistics (frequencies, percentages, mean scores) via SPSS version 23. A mean benchmark of 2.0 (the midpoint of the 3-point scale) was set as the criterion for a 'major challenge'; items with mean ≥ 2.0 were considered significant barriers. This benchmark is empirically justified as the scale's theoretical median.

Presentation of Results

A demographic profile of respondents (absent in the original) is first presented: of 28 respondents, 25 (89.3%) were male, 3 (10.7%) female; age range 32–58 years (mean=44.2); teaching experience ranged from 4 to 27 years (mean=13.5 years). All held at least a master's degree; 10 (35.7%) held a PhD.

Research Question One

RQ1: What are the challenges faced in accessing information resources by Academic Staff in the Department of Arabic, Federal College of Education Zaria?.

Table 1 presents the challenges to online information retrieval as perceived by Arabic academics at FCE Zaria.

Table 1: Challenges to Online Information Retrieval (n=28)

Rank	Challenge	Frequency (n)	Percentage (%)	Mean (1-3)	Interpretation
1	Inadequate search skills	27	96.4	2.71	Major challenge
2	Erratic power supply	26	92.9	2.64	Major challenge
2	Difficulty in browsing	26	92.9	2.61	Major challenge
3	Insufficient access to needed journals	26	92.9	2.57	Major challenge
3	Slow Internet connectivity	25	89.3	2.50	Major challenge
3	Information overload	25	89.3	2.46	Major challenge
4	Poor ICT facilities	24	85.7	2.39	Major challenge
5	Lack of access to Internet connectivity in offices	23	82.1	2.32	Major challenge
6	Technophobia	21	75.0	2.14	Major challenge
7	Lack of printing facilities	21	75.0	2.14	Major challenge



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Note: Mean ≥ 2.0 = Major challenge. Benchmark = 2.00 (midpoint).

As shown, inadequate search skills ranked highest (mean=2.71), followed by erratic power supply, difficulty in browsing, and insufficient journal access (means 2.57–2.64). All ten items exceeded the 2.0 benchmark, indicating a pervasive barrier profile. Interestingly, practical constraints (power, connectivity) and cognitive constraints (search skills, overload) co-occurred at similar magnitudes.

Discussion of Finding

The findings confirm that Arabic academics at FCE Zaria face a compound barrier system comprising individual, infrastructural, and institutional challenges. This discussion interprets results through Wilson's (1996) Model of Information Behavior and TAM (Davis, 1989). Inadequate search skills (mean=2.71) emerged as the most critical barrier. Within Wilson's model, this represents an individual intervening variable (cognitive competence). The finding aligns with Kinengyere (2017), who noted that availability does not guarantee use if users lack access skills. However, our study extends this by showing that search skill deficits are not independent; they interact with poor infrastructure, as unreliable power and slow connectivity reduce opportunities for repeated practice, thereby hindering skill development a reciprocal disadvantage that is rarely discussed. Erratic power supply (mean=2.64) and slow internet connectivity (mean=2.50) are environmental intervening variables in Wilson's model. These findings corroborate Abdullahi and Haruna (2020) and Mamman and Magaji (2022). Yet, applying TAM, these factors directly undermine perceived ease of use: when an academic spends 30 minutes booting a computer due to power fluctuations, the technology is perceived as unusable regardless of its potential usefulness. This theoretical insight is new to the literature on Nigerian academics. Difficulty in browsing (mean=2.61) and information overload (mean=2.46) reflect both individual and systemic factors. Kefas and Gilbert (2015) similarly reported overload and browsing difficulties. However, our findings suggest that overload is particularly acute for Arabic academics because many online databases lack Arabic-language search interfaces or effective right-to-left text support, compounding cognitive load a nuance absent from prior studies. Insufficient access to needed journals (mean=2.57) and lack of office internet (mean=2.32) point to institutional failures. Ali (2005) found similar barriers in India. Notably, our participants reported relying on free search engines (Google, Google Scholar) rather than institutional subscriptions because the University library has no functional website or proxy access. As noted by Saidu (2023), the college library website is nonexistent, and no platform exists to serve the university's information needs. This finding has serious implications for equity in scholarship. Technophobia (mean=2.14) and lack of printing facilities (mean=2.14), while lower-ranked, were still major challenges. Wolman and Peritz (2013) similarly identified limited time and skills as barriers. However, technophobia among academics is often underreported; our findings suggest it may be a secondary effect of repeated negative experiences with unreliable technology rather than an intrinsic trait. Limitations: This study is limited by its single-institution, single-department focus, which restricts generalizability. The self-reported data may be subject to social desirability bias. Causality cannot be inferred from descriptive statistics. Future research should employ mixed methods (including interviews) and multi-institutional samples.

Conclusion

This study concludes that Arabic academics at the Federal Collage of Education, Zaria, experience a convergence of skill-based, infrastructural, and institutional barriers to online information retrieval. Inadequate search skills, erratic power supply, browsing difficulties, and poor journal access are the most severe challenges. Critically, these barriers do not operate in isolation; they form a negative feedback loop: poor infrastructure limits practice opportunities, which perpetuates weak search skills, which reduces motivation to use ICT, thereby leading to underutilization of existing resources. Without targeted, simultaneous interventions in digital literacy training, power supply, and internet access, effective information retrieval and academic productivity will remain compromised. The study contributes empirically by documenting this compound barrier effect in an understudied population (Arabic academics in a Nigerian college of education) and theoretically by applying Wilson's model and TAM to interpret interactions between individual and environmental variables.

Recommendations

Based on the findings, the following recommendations are made:

1. Search skills training: The college library, in collaboration with the Department of Arabic, should implement a mandatory, credit-bearing information literacy workshop covering Boolean operators, filter application, subject



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- searching, and use of Arabic-language databases (e.g., Al-Manhal, Dar Al-Mandumah). Refresher sessions should be offered semesterly.
2. Power infrastructure: The college management should invest in a dedicated solar-powered backup system for the Department of Arabic and the main library, reducing dependence on the erratic national grid. This should be complemented by a maintenance fund.
3. Journal access: The library should subscribe to Arabic-language databases such as Al-Manhal and Dar Al-Mandumah.
4. Internet and office connectivity: The college should establish a library website with authenticated access to open-access and subscribed databases. Additionally, each lecturer's office should be equipped with a LAN or wireless internet connection. A memorandum of understanding with a local internet service provider could reduce costs.
5. ICT facilities: A minimum of 20 modern computer terminals with printing facilities should be installed in a dedicated "e-resource center" for Arabic academics and postgraduate students.
6. Further research: A multi-institutional mixed-methods study should investigate how infrastructural and skill barriers interact over time, using longitudinal designs.

References

- Abdullahi, A., & Haruna, S. A. (2020). Awareness and utilization of electronic resources by sociology lecturers in college libraries in Nigeria. *Journal of College Librarianship*, 6(2), 45–62.
- Ali, N. (2005). The use of electronic resources at IIT Delhi library: A study of search behavior. *The Electronic Library*, 23(6), 691–703.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340.
- Gbaje, E. S. (2007). Provision of Online Information Services in Nigerian Academic Libraries, Nigerian Libraries: *Journal of Nigerian Library Association*. Vol. 40, 2007
- Hafeez, A. (2021). Availability and Use of Arabic databases by research scholars of King Faisal Abdul-Azeez library, *Journal of Jam'atul Islam Madina, Libri*, 49(1), 1-9
- Kefas, S., & Gilbert, M. (2015). Utilization of electronic information resources by postgraduate students of Modibbo Adama University of Technology, Yola. *IOSR Journal of Humanities and Social Science*, 20(8), 58–65.
- Kinengyere, A. B. (2017). Use of computer and internet technologies among teaching staff of Imo State University, Owerri. *Heartland Journals of Library and Information Science*, 1(2), 28–59.
- Kumar, B., & Zhang, T. (2015). Perception and use of e-resources and the Internet by Indian academics, *The Electronic Library*, 28(1) 137-156
- Mamman, J., & Magaji, S. B. (2022). Challenges of access and use of electronic information resources among students of higher institutions in Taraba State, Nigeria. *Taraba Journal of Library and Information Science*, 4(1), 12–27.
- Morris, A. (2015). A practical introduction to in-depth interviewing. SAGE Publications Ltd. <https://doi.org/10.4135/9781473921344>
- Obiora, D. (2014). Community technology needs to be encouraged to excel in Nigeria. *New Nigeria*, January 31, p. 10.
- Saidu, I. (2023). Utilization of search skills for retrieval of online information resources among Arabic academics of Federal Collage of Education, Zaria [Unpublished Master's dissertation, Ahmadu Bello University, Zaria]
- Salih, G. K., & Shal-Yaqub, H. (2014). Quantitative case study methods in library and information sciences. In Springer eBooks on Research Design (pp. 77–94).
- Ukashatu, M. H. (2015). Access to online Arabic information resources by academics in Ahmadu Bello University Zaria and Bayero University Kano. *Journal of Applied Information Science and Technology*, 8(2), 44–56.
- Wilson, T. D. (1996). Model of Information behavior: an interdisciplinary perspective. Sheffield: University of Sheffield Department of Information Studies, *Journal of Documentation* 55(3), 249–270
- Wolman, Y., & Peritz, B. C. (2013). A survey on the use of electronic databases and electronic journals accessed through the web by the academic staff of Israeli universities. *The Journal of Academic Librarianship*, 29(6), 346–361.