



Do People in Low Resource Environments only Need Search? Exploring Digital Archive Functionalities in South Africa

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Abstract

Existing user studies on how users use digital archives as information systems seldom focus on what influences users' needs and expectations. Similarly, not much is known about how the low resource context influences users' needs. What users expect from searching and other related functionalities is rarely addressed in the cultural heritage and historical digital archives. These gaps unveil the mismatch between users' needs (and expectations) and deployed technologies in the low resource context. As a result, delivering novel services through these digital archives is impossible because of the gap between design and reality. Users in the low resource environment are thus constrained to use whatever functionalities are available. This paper presents the empirical result of a user study. We determined the study's sample framing using the future determination analysis technique. This analysis also guided the scoping of the study's survey. The study foregrounds the need to adapt to users' ever-changing expectations by understanding their needs. This is critical for a better system design that meets users' expectations. A key finding is that users strongly prefer simple search functionalities in low resource environments. Regardless, they would prefer to use advanced features if given the opportunity. However, the expertise (and sometimes funding) needed to satisfy this desire is scarce. The surveyed users are only end-users without the expertise to innovate and build digital archives to meet their needs. This dearth of "resource(s)" was found to be characteristic of the experience of low resource (or resource-poor) settings like South Africa.

Keyword: Information system, information-seeking behaviour, users' information needs, domain search, research survey

1 Introduction

Users of digital archives today live in a world where a range of digital and accompanying technologies have become part of their daily information landscape. In a low resource environment, this experience should not be different. Unfortunately, deployed digital technologies in the low

resource context rarely meet the needs of users due to a mismatch between users' needs and deployed technologies [23, 26]. The humanities researchers served as case study in this work since they use digital archives [10] in South Africa as a low resource environment.

In a recent work by Engerer [10], emphasis was on the necessity to understand users and the way they interact with digital information systems [4]. This emphasis was essential since understanding how users use the digital archive is crucial to improve affordance and optimise system functionalities [14]. Digital archives contain important digital resources that attract different users for various purposes [4]. Therefore, it is essential to investigate how these users interact with them. In the low resource context, a nuanced understanding of how digital archives' functionalities support users' needs can help rejig the system design to impact its function to respond to users' requests satisfactorily [14].

However, despite technological advances in the digital information system domain [10, 18], it is still unclear whether the functionalities offered by digital archives support the needs of users in low resource environment (a.k.a. resource poor setting). There is currently no known effort that attempts to fill this gap as far as we know. In this work, we address this aim by answering the Research Question (RQ): How do South African Humanities scholars use digital archives in their research activities? We identify major digital archives in the South Africa context and examine them based on the DELOS model functionality benchmark in a desk-based Feature Determination Study (FDS) process that provided the sampling frame and scope for the user study to answer the RQ. There is evidence of using the term "digital archive" interchangeably with "digital library" in this paper. This is because they are both digital information resources and exemplar digital information systems [4, 23]. They are both built by the same theoretical, and reference models - either the DELOS or 5S model [1, 7, 15]. To clear every doubt, the framing of our argument in this paper is focused on "digital archive" and not "digital library". The main thrust of the paper is "digital archive". In fact, to be more specific cultural heritage and historical archive.

2 Background

2.1 The Low-resource Environment and Contexts

The term low resource environment [27, 28] has been used interchangeably in the literature [13, 30]. Terms such as resource-poor settings [21], limited resource contexts, and low- and middle-income countries [17] are rife. Other commonly used terms are low- or under-resourced areas, low-resource settings [17], etc. These terms are used to connote settings, environments or contexts where resources are scarce. In sub-Saharan Africa, there are vast disparities in exemplar countries such as South Africa. This is in the area of access to skilled professionals (i.e. technical expertise). Lack of funding is another challenge that is captured in the resource-poor concept. However, in this paper "lack of funding, low-income or high-income" is not used in a dichotomous sense. That is, in the sense of "inadequate versus adequate" - a conception for low, middle or high-income countries in the literature [13, 30]. Development in the digital archive domain has struggled in respect of innovative drive [[27] due to poor or lack of funding and lack of critical skill to build and maintain this digital information resource. The most affected is the historical and cultural heritage digital archives. While globally, disparities exist; however, they are more significant in low-resource communities in sub-Saharan Africa, and South-East Asia [17].

Emerging from the literature is the consistent use of "resource" and "income" as synonymous terms. However, this is a proxy approach that undermines the context. It leaves insinuations

and assumptions that impede their interpretation without contextualising them. Putting them in contextual perspective is a choice made in this paper, drawing on van Zyl's et al. [30] work. The "resource-poor setting" is thus verbalised in this paper as "resource limitation". We thus argue, as follows, based on findings from the literature [13, 27, 28, 30]. The term "resource" does not connote "income" only. We go with the term "resource-poor setting" deliberately. This helps our focus on "resource" not as "income" (whether low, middle or high) in the context of this work, but as the absence of experts (or expertise/skills), and the lack of the "right" policies to manage specific technologies.

In this paper, what is hypothesised as ideal for the low resource context is digital information resources that operate with insignificant computational resources and less continuous technical maintenance [27, 28].

Motivated by this challenge, our work highlights the significance of "learning from users". The knowledge from this learning is about users' needs and expectations of digital resources. It is also about the goals, practices, and context of users, which are essential to building digital archives with improved affordances and optimised functionalities that fit the low resource (or resource-poor) context [12, 15]. As Hauswedell et al. [14] put it, shaping the form, function, and affordances of digital archives starts from understanding the needs of end-users and using the understanding.

2.2 Related Work

The significance of studying how users use technology is known in the literature across a variety of contexts [11, 12, 23, 24]. In Luca and Narayan's [19] work, an institutional repository was evaluated to redesign it based on user feedback. In a similar work by Narayan and Luca [22], user awareness of open access in a university repository was studied, and the study's findings guided the repository's redesign. Feliciati and Alfieri [12] studied over 80 users to evaluate a prototype archival portal to understand what inhibits its delivery of quality user services. Studies on user experience evaluation in digital libraries and archives exist in the literature. In Barifah et al. [4], a laboratory user study was conducted with 65 participants to assess the experience of users with a digital library. The aim was to understand user experience in terms of the needs and expectations of users instead of usability. Similarly, Wu et al. [31] through clustering and statistical methods, assessed the functionalities of the multilingual services of a digital library. The aim was to understand users' needs and expectations and fill the research gap on the paucity of knowledge on how users use multilingual functions in digital libraries.

There are verifiable pieces of evidence in the literature [8, 23], showing that design with context-orientedness does well in the low resource context. Dutta [8] in his study investigated how indigenous people demonstrate information seeking behaviour and needs in some developing countries. In another related work by Ortiz-Crespo et al. [23], the gap between reality and system design was addressed. Feedback from the user-based study guided the creation of a digital information service that meets the need of the prospective users. Similarly, Phokeer et al. [24] applied the mixed methods approach to understand and gain insights into mobile data usage patterns. Insights from such user-based studies were argued as capable of informing system design, drawing on the context of users. That digital archive as complex information system [4] should support explorative search [10] motivated the work by Bartlett et al. [5] to examine how undergraduate students carry out exploratory searches. The research used a non-mixed method to conduct a survey. In the low resource environment, creating digital archives is often challenging due to factors such as poor Internet connectivity etc. There is also the constraint to design with a set of atypical principles in mind [27, 28].

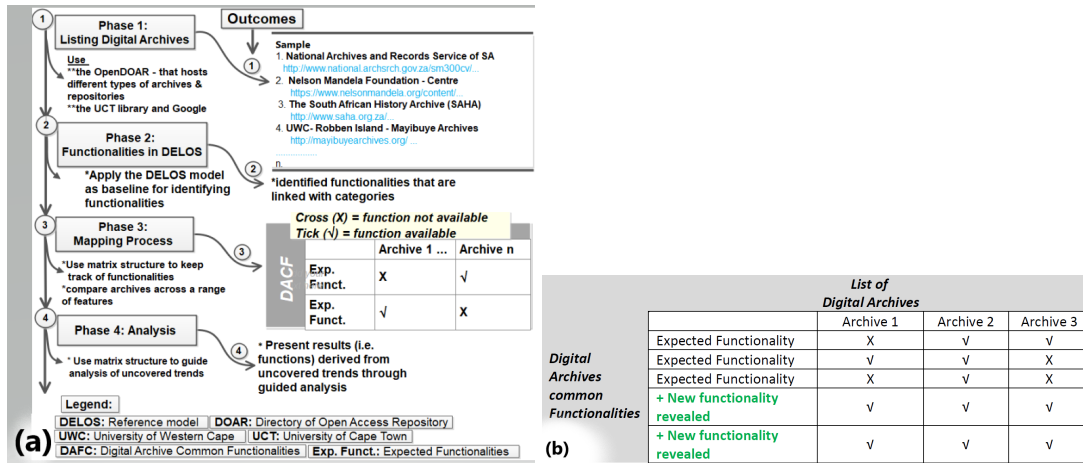


Figure 1: (a) Phases of the feature determination study; and (b) Feature determination study matrix

The choice of the work reviewed herein is guided by Engerer Volkmar [10] call to focus on understanding how users interact with digital information systems to guide the choice of functionalities that are suitable for end-users [6]. However, these reviewed articles did not consider the context of the low resource environment and how digital information system functionalities support target users (e.g., humanities researchers).

3 Methodology

3.1 Feature determination study

The Feature Determination Study (FDS) provided the sampling frame and scope of the online user survey. The desk-based FDS informed the survey questions administered in the user study. Through it, digital archives within the study context - South Africa - were studied to identify digital archive features (i.e., functionalities). The FDS is summarised in Figure 1(a) and Figure 1(b) shows a snapshot of the feature determination matrix used to keep track of the features (i.e., functionalities) identified from the digital archives found in phase 1. Four (4) phases were involved in the feature determination process as discussed in the following subsections.

3.1.1 Phase 1 - digital archives listing

The digital archives available to humanities researchers within the study context - South Africa - were identified. The Global Directory of Open Access Repositories (OpenDOAR) [7, 15] guided the finding and identification of the digital archives. The directory hosts different digital archives and repositories that belong to institutions worldwide. The digital archives outside the scope of the study context were left out since they did not align with the goal of the study. The references found in the directory were relied on, and relevant literature both from Google search and Library also supported the exercise.

3.1.2 Phase 2 - The identification and listing of functionalities

The DELOS reference model was relied on in this phase. The model, like the 5S model is one of the models that defines how a digital library is built. The model made it clear what kind of entities should operate within the digital library and what their functionalities should be [1, 7, 15]. It provides clarity on the components of digital library systems that is consistent with the aim of this study. It thus guided the functionalities to look out for in the digital archives identified in phase 1. The functionalities are context-specific functionalities with focus on service delivery [1].

Guided by the DELOS model, context-specific functions that respond to users request were conceptualised and categorised into the “Access Resources”, “Manage Resources”, and “Collaborate” categories. While “Access Resource Function” category is conceptualised to cover activities (i.e., tasks) of requesting, and retrieving information, etc, the “Manage Resource Function” category is scoped to include activities such as creation and deletion tasks, etc. Furthermore, the “Collaborate Function” concept category is characterised as activities that allow users to work together for a common goal.

3.1.3 Phase 3 - The mapping process

This phase covers the mapping process using the matrix in Figure 1(b). The categories of functions identified in phase 2 helped to identify and fit features into the category of “Exist, Do not exist, and Exist but unclear”. The concept of a feature (or functionality) being unclear stems from the fact that it was difficult to understand the operations they perform. Overall, this difficulty, it seems, resulted from the poor conception of their affordances. The choice of the matrix structure results from the need for a reliable means to compare targeted features (i.e. the functionalities identified in phase 2) across a range of digital archives. The structure succeeded through a heuristic sense-making technicality that helped update and adjust the list of functionalities when we identified new functionality.

3.1.4 Phase 4 - The analysis process

The list of functionalities discovered in the preceding phase was analysed in this phase. Again this was possible using the matrix structure to uncover meaningful trends. This analysis motivated the questions used in the survey as it became obvious that it was important to know the functionalities in the existing digital archives. With brevity due to space constraint a sample list of the survey questions and response options are presented in the Appendix for perusing.

3.2 Survey study design

3.2.1 Survey design and research setting

This exploratory study used the online survey method with closed ended questions, which were responded to through the Internet using email. It was a self-administered survey using the LimeSurvey software as practiced in the literature [9, 25]. This approach of using a professional online survey made it easy to password-protect the data after collection.

3.2.2 Study population and sample

The target population of this study were humanities researchers. Their choice for the study is based on their experiences of using the digital archives. The category of humanities researchers

includes academics, postdoctoral researchers, postgraduates and undergraduates student researchers, and public and private sector professionals who use digital archives. In order to use a realistic target sample, the nonrandom convenience sample technique guided the study. A link to the online survey was sent to the participants via the Internet through email. Within the University of Cape Town (UCT), the link to the survey was made available to respondents through a research mailing list. This link is the general UCT link to invite UCT students and staff to participate in research surveys.

The link to the survey was also made available on a private portal - the Mandela Rhodes Connect portal of the Mandela Rhodes Alumni community that consists of humanities professionals and researchers. To explore additional setups we initiate a cold email outreach to get more respondents from five (5) other universities within the South African humanities space and context. The universities include the University of Pretoria, Rhodes University, Nelson Mandela University, the University of the Witwatersrand, and the University of KwaZulu-Natal because they are research based universities. That their email addresses were publicly available also made it easy to email the survey link to relevant individuals and users.

3.2.3 Research instrument reliability

The survey questions were made short and straightforward as much as possible to avoid bias. All misleading questions and fuzzy concepts that were perceived to be difficult to understand were clarified. The framing of the survey questions were done with the aim of measuring what was intended with respect to inputs from the FDS. A pretesting of questions through a pilot study of five (5) humanities researchers was completed in an independent survey to prune and screen out problematic questions. Their feedback highlighted a few weak correlations between draft questions and response options. They also counselled that the questions should specifically address issues in the study context. All these were sorted to strengthen instrument reliability.

3.2.4 Data analysis

This study used content analysis in the FDS to determine the digital archives for the study. This analysis influenced the sampling frame and scope of the survey. The outcome of this exercise guided the collation of functionalities as suggested by users. The survey data were analysed quantitatively using Microsoft Excel and STATA 15 tools. The data for the survey was organised into a suitable format before descriptive analysis to understand user needs and expectations, etc. Given that the questions in the survey were substantially independent, it was easy to ignore unanswered responses. This independence made it possible to analyse each question independently.

4 Result

4.1 Outcome of the feature determination study

4.1.1 Phase 1

In this phase, 31 digital archives were identified. However, the name and URL of five(5) is presented in Table 1 due to the brevity of space. These digital archives informed the sampling frame that narrowed the study concern to the low resource context and delimited the survey tool's scope to include only the category of functionalities expected in the digital archives. For

example, part of the assumption made in this study is that respondents must have used at least one (or most) of digital archives.

Name of identified digital archive	URL of identified digital archive
1.National Archives and Records Service of South Africa	http://www.national.archsrch.gov.za/sm300cv/smws/sm300dl
2.GALA (Gay and Lesbian Archive)	https://gala.co.za/archive/
3.Anti-Apartheid Movement Archives	https://www.aamarchives.org/
4.Nelson Mandela Foundation - Centre of Memory archive	https://www.nelsonmandela.org/content/page/collections
5.The South African History Archive (SAHA)	http://www.saha.org.za/
...	...

Table 1: Five (5) example out of the 31 digital archives identified for the study

4.1.2 Phase 2

The categories of functionalities found in this phase were limited to functions that fit into the “Access Resources”, “Manage Resources”, and “Collaborate” categories. As earlier explained in the methodology, the DELOS model guided the choice of user-focused functionalities. Table 2 shows this categorisation with the list of functions listed by each category.

Categories	Functions listed by categories
Access Resource	Search, Discover, Browse, Visualise, & Acquire
Manage Resource	Update, Validate, Annotate, Analyse, etc
Collaborate	Exchange Information, Converse, Find Collaborator, etc

Table 2: Categorisation of functions relevant to users

4.1.3 Phase 3 and 4

In phase 3, functionalities were identified, and in phase 4, they were classified into the most and least prevalent functionalities that are found in the digital archives within the South Africa context. In Table 3, The GREEN and RED colours represent the % of available or unavailable functionalities in more than 50% of the archives that were studied. For brevity of space only results of two functions each from the three category of functions are presented in Table 3.

In Table 3, for example, under the “Access Resource” category – the function “Search” allows users to search collections etc. It was available (i.e. present) aggregately in (81%) and absent in (19%) of the digital archives. The (81%) is green since it appeared in more than 50% of the digital archives we examined. The second function under the “Access Resources” category - “Acquire” support content import from users. Regrettably, this function was present only in (19%) and absent in (65%) of the digital archives studied. It was also observed that this function was not clearly presented in 16% of the digital archives due to poorly conceived affordances. This same explanation goes for the other categories of functions, whether “Manage Resource” or “Collaborate” functionalities. For example, under the “Manage Resource” category, “Annotate” and “Analyse” functions were present in 3% and 0%, and absent in 97% and 100% respectively of the digital archive under review. Similarly, under the “Collaborate” category, “Find Collaborators” and “Exchange Information” functions were present in 0% and

GREEN shows the (%) functionality available in $\geq 50\%$ of the archives studied
RED shows the (%) functionality not available in $\geq 50\%$ of the archives studied

Category of functionality	Conceptualisation of functionality	%		
		1	2	3
Access Resource				
Search	Search collections, bibliography, etc	81%	0%	19%
Acquire	Support content import	19%	16%	65%
Manage Resource				
Annotate	Allows annotation/comments	3%	0%	97%
Analyse	Provides statistics and linguistic analysis	0%	0%	100%
Collaborate				
Find Collaborators	Allow other system users to collaborate	0%	0%	100%
Exchange Information	Allows sharing& exchange of information	3%	0%	97%

Key: % 1 (% of archives in the study with identified functionality); % 2 (% of archives in the study with identified but unclear functionality); % 3 (% of archives in the study without identified functionality)

Table 3: Categorisation of functions relevant to users

3%, and absent in 100% and 97% respectively of the reviewed digital archives. 65%, 84% and 100%, and 100% and 97% under the “Access Resource”, “Manage Resource” or “Collaborate” functionalities, respectively, are red because the functions they represent are absent in more than 50% of digital archives. These functions made the list of reported functionalities in this work because they are the functions used the most in each category of functions.

4.2 Result of the survey study

4.2.1 Information on user study sample

102 responses were received from the study participants. Their ages range from 18 - 69 years. The percentage (%) of Male and Female participants in the study are 61% and 39%, respectively. Humanities scholars from six (6) universities within the study context - South Africa - took part in the study. While Figure 2(a) shows the humanities field of the respondents from the six(6) universities sampled, Figure 2(b) show the respondents’ frequency of using the digital archives on a daily, and weekly basis, etc. Furthermore, Figure 2(c) shows a bar chart distribution that summarises the findings in Table 3. The user study, influenced by the FDS, answers the RQ. To answer the RQ, a series of questions was administered using the survey. For example, respondents’ familiarity with digital humanities practices and tools provided the opportunity to understand if the participants have adequate knowledge of the services, methods, and practices in the digital humanities. Figure 2(d) shows their responses.

The result in Figure 2(d) shows that 28% of the respondents did not respond to the question asked, which is indicated as “n/a” in Figure 2(d). However, 62% respondents indicated that they were “not familiar” with Spatial Analysis. While 20% were “not familiar” with the practice of digital records preservation, up to (58%) were familiar with it. Based on the responses of 40%, 39%, and 37% respondents, Figure 2(d) also show that Data Visualization, Digital Publishing,

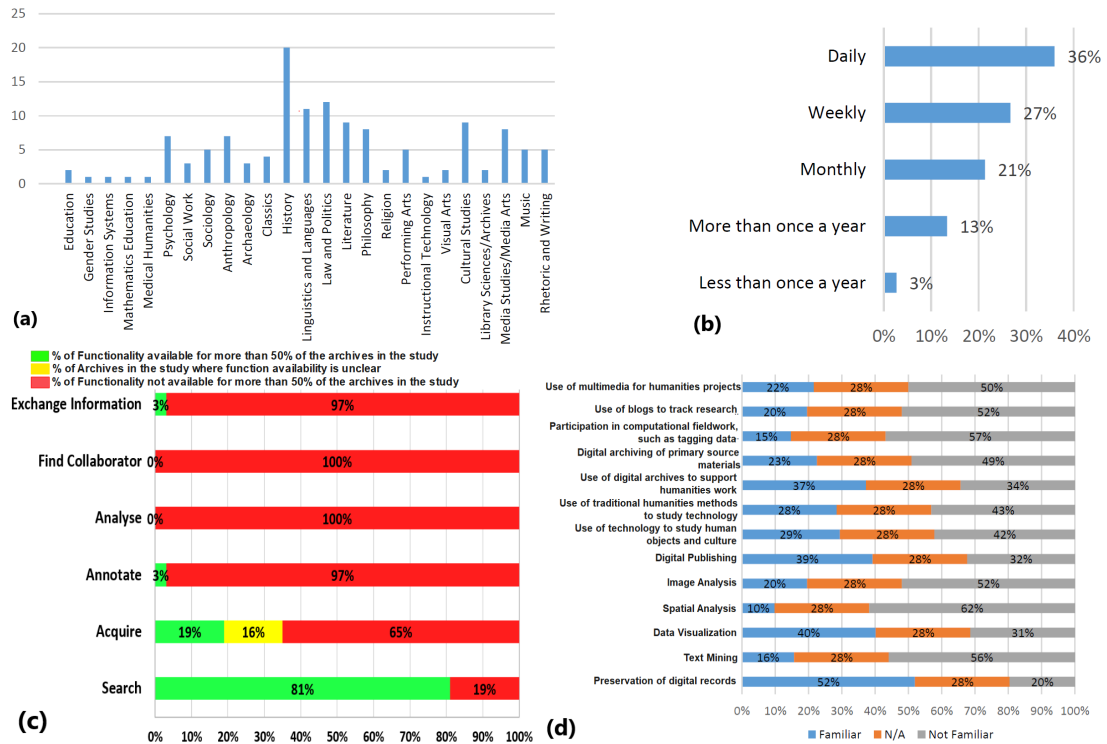


Figure 2: (a) Distribution of digital humanities field of respondents; (b) Frequency of using digital archives; (c) Summary of findings in Table 3; (d) Responses to familiarity with digital humanities methods and practices

the use of digital archives to support their work, etc., are the other practices they were primarily “familiar with”. As the responses indicated, these findings show that respondents were familiar with some basic digital humanities methods and practices. This level of familiarity was suitable with the study’s goal, meaning they are humanities researchers and are familiar to a helpful extent with the experiences and practices that should help them make the transition into digital humanities practices.

4.2.2 Result involving digital archives’ functionalities to support their users’ needs

Participants were asked to rank the functionalities of the digital archives. This was needful to understand the functionalities they like or value the most. A few of the functions and users ranking are presented for the brevity of space, as shown in Table 4. In Table 4, the functionality of “search” rank the highest.

LoF	1(H)	2	3	4	5(L)	LoF	1(H)	2	3	4	5(L)
Search	63%	26%	7%	0%	4%	Acquire	8%	27%	35%	17%	13%
Visualise	0%	4%	26%	52%	18%						

Key: LoF (List of functionalities); H (Highest); L (Lowest)

Table 4: Functionalities ranking

This finding agrees with the FDS results in Figure 2(c) and Table 3. They show that more than 50% of the archives had search functions. Table 4 shows that search functions ranked the most as shown by an aggregate of 89% of respondents as shown in the first 2 top positions (i.e. 63% and 26%). However, respondents ranked visualise function (0%) as the lowest after the “acquire” function (8%). These results are respondents’ opinions about the digital archives. They affirm the view that users use more of the functionalities within the “Access resources” category than the ones in other categories (see Table 2).

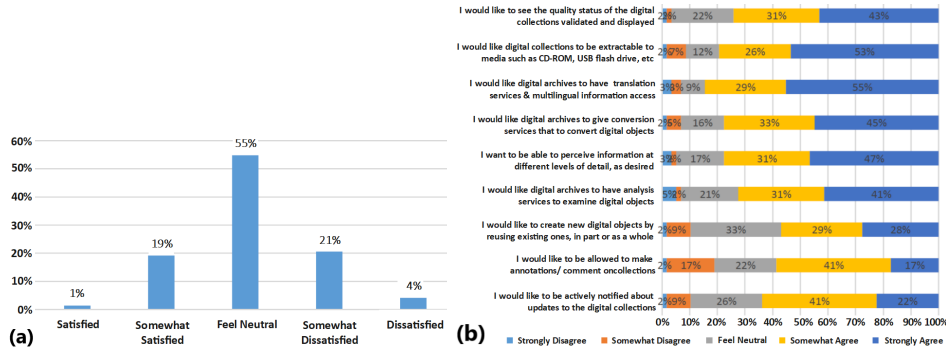


Figure 3: (a) Respondents’ satisfaction with digital archive based on content accessibility; and (b) Respondents’ preferences for digital archives resources

Figure 3(a) provides an overview of respondents’ satisfaction in terms of content accessibility. The insights shared showed whether the services provided by the digital archives meet the expectations of the respondents. For 20% of the respondents, they were satisfied with the functionalities of the digital archives. The aggregate of 1% of “satisfied” and 19% of “somewhat satisfied” responses showed this. Based on this result, 80% of the respondents feel unsatisfied with the system. See the aggregate of respondents in Figure (3a) (i.e., 55% of “Feel Neutral”, 21% of “Somewhat Dissatisfied”, and 4% of “Dissatisfied”). This opinion shows that content accessibility is poor.

Figure 3(b) reports how respondents prefer the digital archives. This includes the functionalities they expect the digital archives to have by extension. “Multilingual access” to content as a functional preference, for instance, if available, was preferred by 84% of respondents. This result is based on the aggregate of 29% of “somewhat agree” and 55% of “strongly agree” responses. Another preferred service of choice is the “Annotation/comment service” function. If available, based on the result in Figure 3(b), 58% of the respondents would prefer to use it. Similarly, active notifications about updates to collections, the creation of new digital objects, etc, were also services the respondents would want to use. These findings affirm the belief that advanced functionalities are desired in the low resource environment.

5 Discussion and Conclusion

This study examined users’ needs and expectations regarding search and related functionalities in digital archives within the low resource context. The work presents the results of a feature determination study and an online survey to answer its RQ. The primary finding to emerge from this study is that the digital archives in South Africa are still mainly built around simple search functionalities. This result supports the argument that advanced functionalities are

rarely available in the digital archives in the South African landscape [27, 28]. Thus, the operational support given by the digital archives is inadequate and they are therefore bereft of essential functionalities (see Figure 2(c) and Figure 3(b)). Regardless, it is evident that users are beginning to develop a strong desire for more advanced functionalities. The number of users who aggregately want to use “multilingual services” is a testament to this claim (see Figure 3(b)).

There is evidence in the literature (e.g., [17, 23, 24]) that the functions or digital services available to users of digital systems are limited in low resource environments. This finding is consistent with the finding in this study that users are constrained to use a limited number of available functions. This finding is striking because it affirms that users are possibly conditioned to specific functionalities in the low resource context. This constraint situation conforms to the principle of least effort. Azzopardi [3] explains this situation as rational behaviour, which implies that people will seek a less likely way that requires less effort in the face of limited choice to meet their information needs. The finding in this work also shows that available digital archives in the South African digital space have limited functionalities (see Table 3 and Figure 2c). This resulted from poor (or afterthought) system/software design. This finding is consistent with Ortiz-Crespo et al.’s [23] work. However, the participants in the research show that they desire more functionalities - in fact, advanced ones at that). Nevertheless, the expertise to meet this need is not available in the low resource or poor resource settings. This is because such skills are scarce. This is found to be the case in resource-poor settings like south Africa.

Though the participants show some form of sophistication as users of digital archives, they are not developers; they do not have the expertise to build digital archives since they are end-users. In the literature [19, 20, 29, 14, 12, 11, 23], poor software designs (e.g., for digital archives or other search technologies [2]) result from a lack of understanding of the functionalities users’ needs. This shows that the developers of the existing digital archive in the South African digital space are not experienced or possess the expertise to build usable digital archives. Even the available functions and how their affordances are conceived are a testament to this fact. Because, as shown in Table 3, the operations of an “Acquire function”, which is one of the other findings presented for brevity of space (in this regard) were unclear in 16% of the digital archive that we investigated. This shows poor affordance, which is essential in digital information resources [23, 16]. As Ortiz-Crespo et al. [23] argued, system design must be good enough to sustain continuous innovation in the face of changing users’ needs and expectations. This needs the right expertise to achieve, which is not available, particularly in the low resource context. This implies that the possibility of having poor digital archive (system) design is high, and novel services would be prevented. For this situation to change for the gap between design and reality to close up, experts are needed, and the best place to start is to understand user needs and expectations [20, 29].

This study is not without some limitations. For instance, a convenience sampling method with 102 participants from a few South African universities was employed. The survey part of the study was conducted online and thus challenged with limited questions. Although much of the results align with previous findings, its generalisation is limited to the sampled population. Thus, more investigation is still needed for which this current research is a stir in such direction to explore further its findings based on a much larger sample size in future. Conclusively, this study has demonstrated that users in a low resource environment that use low resource archives will use the existing services they offer but still desire advanced functionalities. When assessing archives in the low resource environment against international benchmarks, we find that advanced functions are not necessarily available but local users who use these archives still express the need for such functions. Thus, users’ needs are not dictated by the resource

limitations of the environment. Therefore, systems design should explicitly attempt to provide appropriate advanced functionality, as indicated by users, but within the constraints of low resource environments. This is a clear design challenge for future digital archives but not one that should be addressed by either ignoring the need of users or disregarding environmental limitations.

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7 Appendix

Table 5: Survey Questions

Survey Question	Response options available to respondents
Justification for Survey Question	
User Study Sample	
Which one of the following best describes your status?	Undergraduate Postgraduate University academic Private sector professional Public sector professional Other
Which of the following is/are your field(s) of humanities?	Anthropology Archaeology Classics History Linguistics and Languages Law and Politics Literature Philosophy Religion Performing Arts Instructional Technology Visual Arts Cultural Studies Library Sciences/Archives Media Studies/Media Arts Music Rhetoric and Writing Other
How often do you use digital archives?	Scale: Daily Weekly Monthly More than once a year Once a year Less than once a year Never
Please rank the following functionalities in order of importance from 1 (most important) to 5 (least important) Search scheme or characteristic – this function allows users to discover collections that match a query that are returned as a set of result; Acquire – this function supports the user in retaining collections that are after the lifetime of the interaction of users with the system; Visualise – this function allow users to view collections graphically;	Rank: 1st option; 2nd option; 3rd option 4th option; 5th option
Please rate the following statements as a user of digital archives: I would like to be actively notified about updates to the digital collections (i.e. every time collections have been updated or changed); I would like to be allowed to make annotations/ comment on collections; I would like to be allowed to create digital objects that are new by reusing digital objects as a whole or in part (i.e. I am able to put together (i.e., compose) multimedia album by combining audio files, singer biographies, and song lists; I would like digital archives to give me access to analysis services to examine digital objects (i.e. linguistic analysis, qualitative and statistical analysis, scientific analysis, etc; I want to be able to perceive information or digital objects at different levels of detail, as desired; I would like conversion services to convert digital objects from one format to another(i.e. from Text-to-speech, speech-to-text, spreadsheet-to-database, data-to-graphs, 3D-to-2D, etc; I would like digital archives to provide translation services and multilingual information access; I would like digital collections to be extractable to DVD, CD-ROM, USB flash drive, etc that are removable; I would like to see the quality status of digital collections validated and displayed	Scale: Strongly Agree; Somewhat Agree; Feel Neutral; Somewhat Disagree; Strongly Disagree
Closing	
Would you be willing to answer more questions if needed in the future? If so, please leave contact:	Email address