

Information Provision to Students using Mobile Phones: a Case Study of the University of Zambia Library

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Abstract.

Provision of library and information services using mobile telephones is gaining popularity among library users worldwide. And some libraries have taken advantage of this technology in order to introduce new library services as well as reach library users that traditionally they would not be able to reach. This paper looks at the possibility of introducing a mobile library service by the University of Zambia (UNZA) library as an alternative way of providing information to university students. This is done by assessing the views of students. The findings point out that students will overwhelmingly accept the service. The paper concludes that by using mobile cell phones, the library can introduce new library services; expand its user base and reach users that are not easily reachable.

Introduction

The common challenge facing Public African University libraries today; the University of Zambia library included is lack of adequate funding either from government or the parent organisation. This critical funding situation has forced libraries to operate with few and outdated resources namely; financial, staff and information resources. Critically, the amount spent by most African Universities libraries from their own funds on the purchase of books and

serials is pitifully low (Rosenberg, 1995)

This is because most often funding from the government to universities is low and keeps decreasing all the time. As a consequence, funding to libraries suffers; as does funding to other sectors of the university community. Simui and Kanyengo (2004) in their study on 'funding of university libraries in Zambia', argue that it was evident that the funding to the university library during the years 1980 - 1990 had been declining; and consequently impacting on the university libraries ability to deliver quality information services. This low funding situation to the university library has continued and the University of Zambia annual report of 2007 states that amongst the major constraints being faced by the library are: "inadequate funding, inadequate staffing, lack of reliable transport, poor infrastructure, inadequate reading facilities, poor ICT resources and internet connectivity and; pilfering and mutilation of library resources" (University of Zambia, 2007).

However, despite these challenges, the University of Zambia library has been striving to meet the information needs of its core constituents; students and teaching staff and therefore supporting the university in meeting its mission of 'teaching, research and service' to the Zambian community. In order to achieve this role, the library has always needed to remain relevant, especially in the era of the internet and virtual libraries so that it takes advantage of the opportunities presented by these technologies in providing information to its users. These technologies will ensure that library university users anywhere in the country can access library resources with the click of just a mouse. Mobile library services, using cell phones has become even more relevant with the University of Zambia expanding its distance learning programme all over the country.

Possible advantages of using Mobile cell phones

Though computers are available on the University of Zambia campus and internet connection is relatively good, the number of PCs is so small to accommodate the numbers of students available at UNZA. The University of Zambia annual report of 2007 says there were 10,296 registered students of which 6,384 were males and 3,912 were females (University of Zambia, 2007). According to the 2007-2008 University Calendar, the major constraint the university library faces in providing Information and Communication Technologies (ICT) related services is lack of adequate computers; and even where computers are available, access to the internet is frustrating by the low bandwidth connectivity that UNZA has (University, 2007). Clearly for the moment the actual numbers of computers available for use and the limited bandwidth both make access to the internet difficult. In such a context, the cell phone or smart phone comes in handy because it's another type of a computer that has not been talked much about in Zambian libraries; and whose full potential is yet to be realized not only by the University of Zambia Library but also other libraries in Zambia.

The mobile phone is one tool that may hold some answers to some of the challenges faced by libraries in terms of meeting the information needs of their users. And one of the most compelling reasons that can motivate the UNZA Library to introduce information provision services using mobile telephone technology is that while these students have limited access to computers and the internet around the UNZA campus and even in their home environments, the overwhelming majority of the students including those on distance learning programmes have access to cell phones. It will therefore be opportune for the University library to be working towards meeting certain goals outlined in the UNZA strategic plan by providing information to students using mobile library service.

The growing use of mobile service in Zambia In recognising the power of technology and how it can be utilized by the library, the University of Zambia in its University strategic plan states that the most critical issue regarding the timely, efficient and effective provision of information services is the library's ability to take advantage of the technological advancements for service delivery (University of Zambia, 2008). For this particular technology would allow the library to easily communicate with students on such things as: book over dues, new titles acquired, upcoming library events etc, through their cell phones; which almost every student has. The cell phone can also potentially be one gadget that can bring the library to the user much closer than what a desk-top computer has been able to do so far.

Therefore, the growing introduction of smart phones with web browsers by cell providers in Zambia should be embraced by everyone and especially amongst librarians as a solution to what computers were meant to do, and are still doing. This is particularly more so in Zambia now, where there are increasingly more mobile phone subscribers than they were a few years ago. Included in this number of mobile phone subscribers are university students. It is expected that the number of mobile phone subscribers will keep going upwards due to the high demand for the service. According to the 2006

Zambia's Economic Report, the total number of active mobile phone subscribers on all the three mobile networks available in Zambia (ZAIN, MTN and Cell Z) increased by 114.5 % (percent) from 503,663 to 1,080,256 in 2005; covering more than 80% of the districts in the country, (Ministry of Finance, 2006). See Table 1 showing the subscriber base trends as reflected in the 2006.

Table 1: Subscriber base trends in Zambia 2003 - 2005

Service Provider	Type of service	2003	2004	2005	% Change 2005/2004
Zamtel	Fixed lines	88,561	90,663	93175	2.8
Cell Z	Mobile	55,000	60,000	96593	61.0
MTN	Mobile	45,151	83,000	190050	129.0
Zain-Zambia/Celtel	Mobile	91,000	270,000	700438	159.4
Total		279,712	503,663	1,080,256	114.5
Source: Ministry of Finance, (2006).					

As can be seen in Table 1, the increase in mobile phone services is tremendous. Cell phones have not just become so popular but are a necessity in a nation that only has 931, 175 fixed telephone line in a population that is estimated at 12,000,000 people. Therefore the popularity of cell phones among students; even among those least able to afford them cannot be divorced from the reality in which the student population lives.

Students are known to use cell phones for its different applications and services.

For instance, it has been established that text messaging is more widely used among the college-age generation. In a study of 18-27 year olds at the Southeastern Louisiana University in the United States of America, 63% of those with cell phones regularly send text messages (Government Technology, 2005). Other anecdotal evidence also indicates that cell phones are prevalent among Southeastern Louisiana University students. According to a student monitor study, there are a record number 5.2 million student cell phone owners or nearly nine in ten college students own a cellular phone in

the United States. And nobody understands this better than cell phone makers and service providers. They have come to realize that they can make more money by bringing cell phone services to affordable levels even by students (Dannington, 2009). According to Kim, Mims and Holmes (2006) "increasing number of colleges and universities are adopting mobile wireless technologies as teaching and learning tools". Kim, Mims and Holmes (2006) further cite Swet (2002) indicating that in the United States of America, "more than 90% of public universities and 80% of private universities in the US have some level of mobile wireless technologies, such as mobile wireless devices and networks". A study done in developing country of Malaysia on 'mobile phone applications in academic library services' found that library users were very enthusiastic about it usage in library and information services provision (Karim, N. S. A., Darus, S. H and Hussin, R. (2006). Here in Africa, the adoption of Mobile telephones in University libraries has been slow.

Statement of the problem

When the University of Zambia library was officially opened in 1966 by then first republican president, Dr. Kenneth Kaunda, it had a sitting capacity of 1600 (University of Zambia, 2009). The sitting has not changed over the years, as there has been no expansion done to the library. While the Library has limited sitting capacity, the University has been over enrolling students. This means that library may increasingly find it difficult to support this huge number of students, if the library only relies on the students coming physically to the library even for simple queries. Access to the internet within the library is also limited due to inadequate personal computers stationed in the library against the huge number of students and the slow internet network within campus. Therefore if the University library has to provide information to students who may not have physical access to the library or internet, they have to think of innovative and alternative ways of reaching them.

Aim of the study

The main aim of this paper is to look at the possibility of the use of cell phones by UNZA library to reach out to users; especially distance learners who might not have the opportunity to come to the library or have access to a computer. The paper assesses student views regarding mobile phone library service provision and attempts to highlight suggestions what type of library services can be introduced.

Methodology

This was a desk research that was supplemented by a half a day survey of students; through a simple questionnaire so as to ascertain on average the number of students who had access to cell phones and whether they would like the University of Zambia library to introduce this mobile library service or not.

A sample of 200 students was randomly drawn from the students who visited the library in the morning of the 10th of September 2009. The students visited the Short Loan section, Special collections, Circulation desk and Serials section. The questionnaire was distributed randomly among the students who visited the above mentioned sections of the library. Out of the 200 questionnaires, 178 were collected and analysed using statistical package SPSS.

Findings and discussion of the results

After the questionnaires were analysed it was discovered that students from 7 schools participated in the survey namely: Education, Humanities and Social Sciences (HSS), Natural Sciences (NS), Engineering, Mines, Agriculture and Veterinary Medicine. The majority of the students who responded to the survey came from the School of Education while the lowest number came from the School of Veterinary Medicine. The low numbers of students from the School of Veterinary Medicine is due to the fact that the survey was mainly administered in the main library. The School of Veterinary Medicine has its own library.

The survey also established that more male students participated in the survey than female students. This is shown in Figures 1 and 2. The reason for having more male students is due to the fact that the University enrolment figures show more males than female students (University of Zambia, 2007). Participation of students from the School of Education was more than the other schools, due to the fact that school is one of the larger schools of the University together with the school of Natural Sciences and Humanities and Social Sciences. In 2007, there were 4, 326 registered students in the School of Education, followed closely with 2, 338 students registered in the school of Humanities and social Sciences and 1, 408 students registered in the School of Natural Sciences (2007). In addition, the day that the

survey was administered might have been when students in the school of education had visited the library for either assignments or preparation for tests.

Figure 1

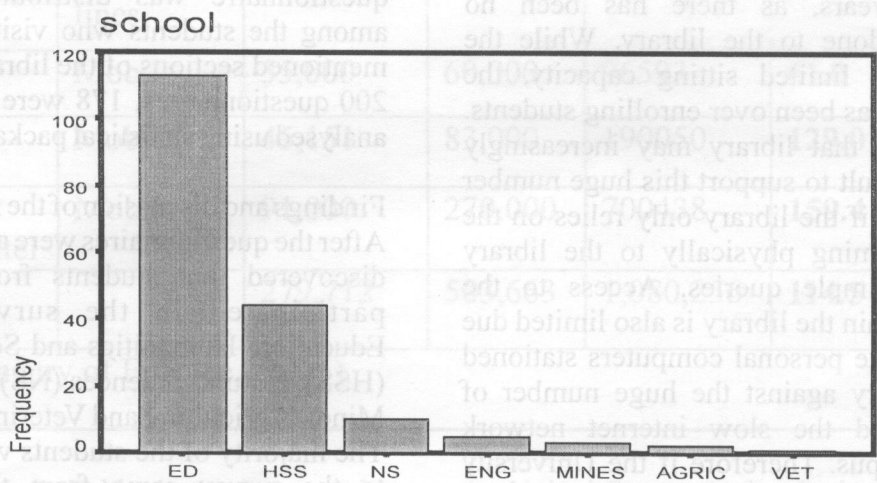
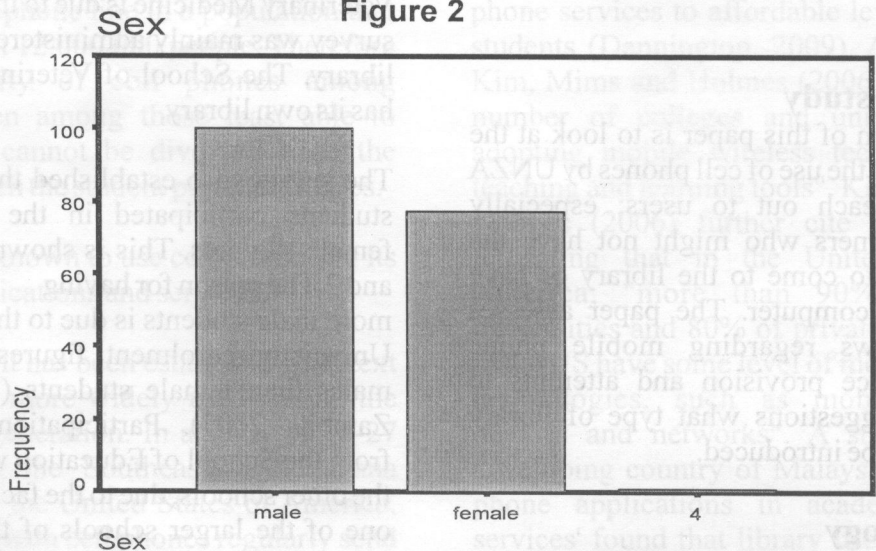


Figure 2



The survey also discovered that nearly every student that answered the questionnaire had access to a cell phone and all the cell phones they had could support short message service (SMS).

This is shown in Figures 3 and 4. Cellular telephones have become cheaper in recent times. In addition all the cell phones on the market have SMS facilities.

Figure 3

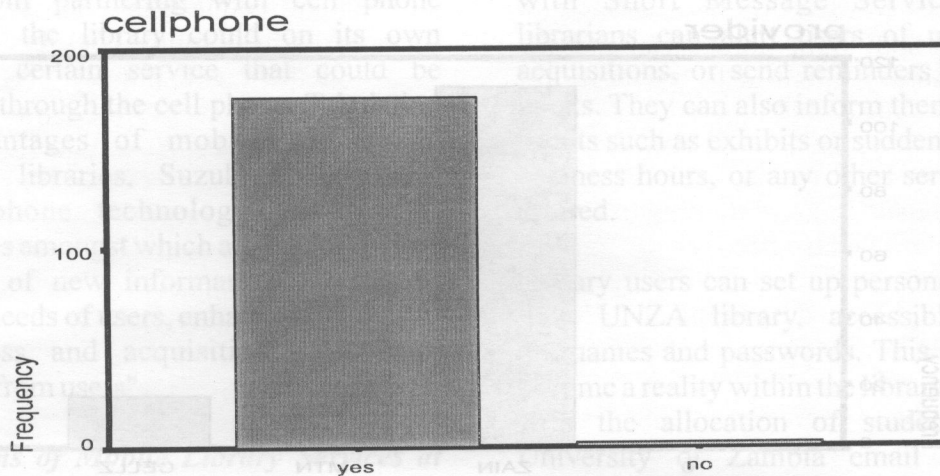
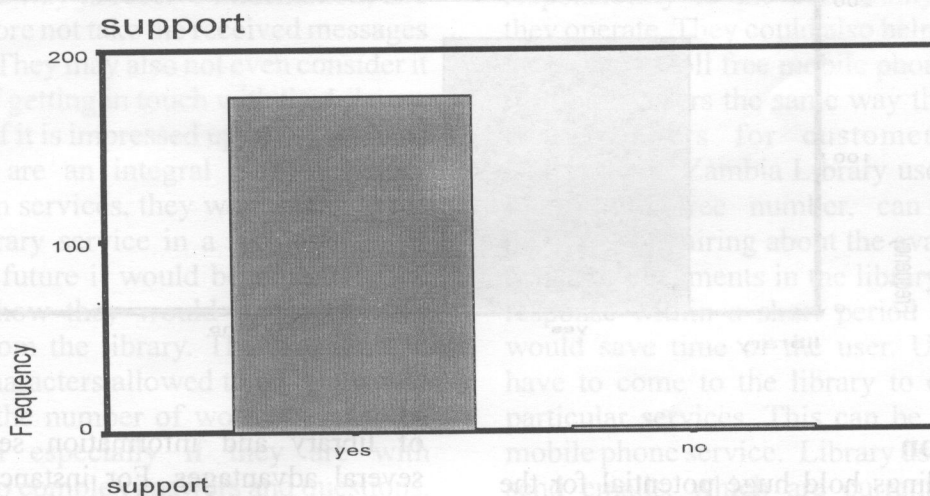


Figure 4



The survey also discovered that most of the students who answered the questionnaire subscribed to ZAIN while CellZ turned out to be the lowest used cell phone network. This is shown in Figure 5. It is important to note that ZAIN is the biggest network countrywide and therefore covers almost all corners of Zambia where students come from.

On the question of whether the students would wish to have a mobile phone library service introduced by the library through which information and other library services could be relayed, almost all of the participants agreed. This is shown Figure 6. This means that students are quite keen and may find the information provision through the mobile phone exciting.

Figure 5

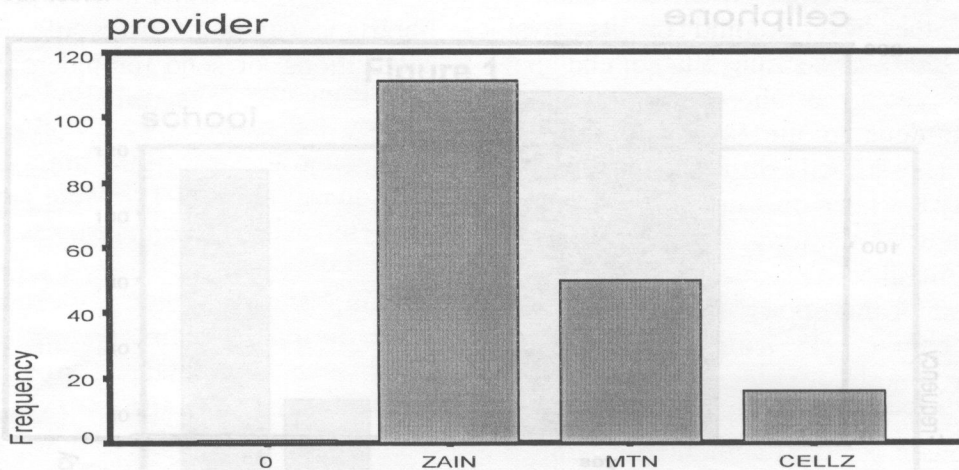
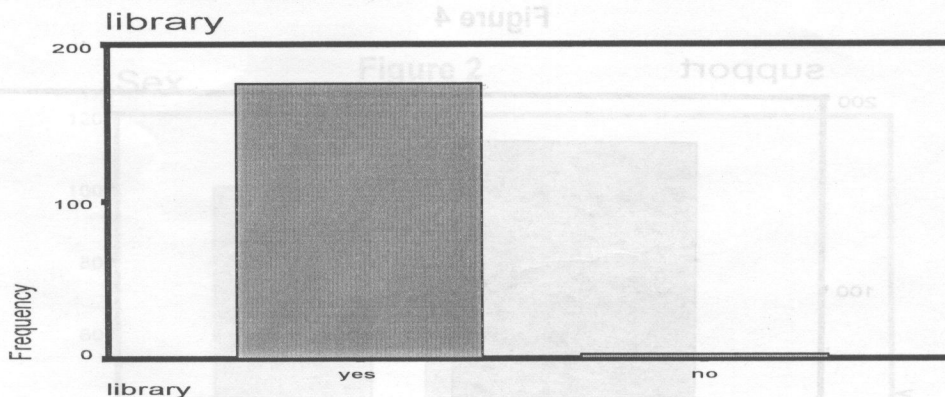


Figure 6



Discussion

These findings hold huge potential for the introduction of library and information services in academic libraries in Zambia. The results indicate that the majority of the students have access to mobile phones; and in addition were willing to have an information service that uses this technology to provide library services to them.

Advantages of Using Mobile Telephones in Library Services

Adopting mobile telephones in the delivery

of library and information services has several advantages. For instance, students can access their cell phones from anywhere at any time; while standing in a supermarket queue, waiting at a bus stop, standing under a tree or while commuting by the train/bus, in the bathroom or just while lying in bed. A cell phone doesn't need as much electricity as a computer. It's easy to find public places where it can be recharged. Moreover cell phones are becoming less costly with every new release as there is competition to attract customers amongst companies. This service

could come to a reality if UNZA Library could formally partner with the cell phone providers.

Apart from partnering with cell phone providers, the library could on its own introduce certain service that could be delivered through the cell phone. Tabulating the advantages of mobiles device in academic libraries, Suzuki (2006) says mobile phone technology has several advantages amongst which are the following: "delivery of new information services to meet the needs of users, enhancement of user friendliness and acquisition of prompt feedback from users".

Limitations of Mobile Library Services at UNZA

The only limitations that may be associated with the provision of information using mobile phones in UNZA libraries is due to the fact that some the students may view short text message service as a social interaction rather than a way to receive information; and may therefore not take the received messages seriously. They may also not even consider it as a way of getting in touch with the Library. However, if it is impressed upon the students that SMS are an integral part of library information services, they would look at the mobile library service in a serious manner and in the future it would become part and parcel of how they would receive certain services from the library. The size limit in terms of characters allowed to be text would also limit the number of words that can be transmitted especially if they are with reference to complex answers and questions. Finally, some students would not want to give their personal cell phone numbers to a public organization such as the Library for their privacy reasons.

Now, how can University of Zambia library take advantage of the popularity of the cell phone to disseminate information? UNZA

Librarians as custodians of information can use popular features of a cell phone to repackage the library information and make it easily accessible to end users. For instance, with Short Message Service (SMS), librarians can alert users of new library acquisitions, or send reminders of overdue books. They can also inform them of special events such as exhibits or sudden changes in business hours, or any other service that is offered.

Library users can set up personal accounts with UNZA library, accessible through usernames and passwords. This service can become a reality within the library, especially with the allocation of students with a University of Zambia email address, a process which has already started through the Centre for Information and Communication Technology (CICT). UNZA Libraries can also form partnerships with mobile phone companies such as ZAIN, MTN or Zamtel. This could be done as part of their social responsibility to the community in which they operate. They could also help the library in setting up toll free mobile phone numbers for library users the same way they use toll free numbers for customer service. University of Zambia Library users, using a library toll free number, can send text messages enquiring about the availability of books or documents in the library, and get a response within a short period of time. It would save time of the user. Users won't have to come to the library to enquire for particular services. This can be done via a mobile phone service. Library users can also send emails, which are currently free on smart phones with unlimited data subscriptions. The use of regular upgrades means that most phones on the market today are smart phones with web browsers. The librarian can send an electronic document to the user by email, or send a web link that they can check at their own time.

Conclusion

It is clear that the mobile phone can be another tool that holds advantages for the delivery of library services in academic environments. However for these services to be beneficial both to the library user and the university library, there will be need for libraries to adequately prepare for the potential introduction of such a service. This preparation has to be in terms of infrastructure support and training of library staff. There will be also need for the training of students who are the potential users of the service. As highlighted by Lippincott (2008), in the mobile library service to be effective, university libraries should "consider their re-tooling for mobile users and mobile devices, they should examine the consequences of mobility and the opportunities for innovation in the areas of content, systems and tools, services, and environments, both physical and virtual".

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