Virtual Reference Service through Mobile App Developed Using MIT App Inventor: An effective tool for Librarians in Covid-19 Pandemic Scenario

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***Abstract** – The paper reveals the responsibilities of library professionals in the contemporary world. And how to think, and how to provide information services to the user community in the critical situation resulted by COVID-19 pandemic. This paper is also give new idea about how to provide information services using "open access information sources". Using "open access information sources" and "MIT App inventor: the mobile application developing platform" how can a library professional provide effective virtual reference service is briefly explained in this paper.*

Keywords: Virtual Reference Service, Virtual Library Service, Information Service and Mobile App, User expectation, Mobile library service.

Introduction

Today the complete scenario of the world has changed only because of COVID-19 pandemic. It impact on every sectors such as education, administration, public life etc. Only because of this deadliest virus people were locked in their home. And education system is completely paused. This kind of drastic development in the society will impacton students future, so that some of the educational institutions took initiative and started online classes for their student community using the latest technologies like Zoom, Webx meet, Go to Webinar, Google meet etc.

In such situation, what is the responsibility of a librarian? Obviously students need information/library service to prepare for their academic exams but they cannot able to come and barrow books from the library. As a library professional how can we serve the users with needed information in such critical conditions?

Don't think too much about it, in such conditions we can provide needed information to the user community under two kinds of library system one is digital library and another virtual library. One thing we have to keep in mind all the libraries are not fully digitized and immediately we cannot digitize entire library it needs some time. But we can provide Virtual Reference Service immediately and effectively. Because there are so many open access information sources are available on online. Only thing we have to do is, we have to select the best from the heap of open access online sources and connect the users with those information sources. It can possible through Virtual Library System.

Literature Review:

The paper also present a brief overview of research literature represented on mobile library services and user satisfaction. Onyenachi et.al. (2015)[1] examined the public library services

in the rural areas. The study highlighted the necessity of library transformation from traditional to digital.

SrinivasaRaoNalluri and BrahmaiahGaddan (2016)[2] Studied about leading strategies of innovative libraries which are using to deliver services through mobile devices. The study further explores the utilization of mobile phone services in the academic environment.

MargamMadhusudhan and Saleeq Ahmad Dar (2017)[3] studied about the necessity of mobile library services in the contemporary world. The study explore the mobile library services initiated by prominent academic libraries for the easy mobilization of their existing services and also assess how such services can be helpful to the user community. The study suggested that libraries can provide wide array of mobile services to the interested users.

Bharathkumar V. (2017)[4]conducted a survey on user satisfaction and their information seeking behavior. The study reveal a picture of library use pattern, information seeking behavior of the students, and the services rendered by the post metric hostel libraries in Chikkamagaluru district. The study found out the information needs of the students of various educational backgrounds.

Li, Hui and Zhao-QuanCai (2016)[5] discussed about design and implementation of the mobile library app based on smart phone, in 2016 International Conference on Machine Learning and Cybernetics (ICMLC). The paper provides information about the development of a mobile library application for smart phones to provide better library services.

Objectives:

- To provide effective information service
- To provide virtual reference service
- To provide needed information to the user community
- To satisfy the user expectations
- To engage users with the library services in COVID-19 scenario

Virtual library System

Virtual library provide remote access to various kinds of information sources such as learning materials, Journals, Magazines, Newspapers etc.

Virtual Reference service:

The Reference Service means providing personnel assistance to readers in seeking needed information. In this context the purpose of Virtual Reference Service is to provide fast, real time online reference help to users at the point of need.

Librarian as Mobile App Developer:

The responsibilities of library professionals have changing with emerging technologies. We have to update ourselves with advanced and new technologies as much as possible, to provide effective information services. We have to change the way of thinking and the ways of information dissemination on the basis of user desire and needs.There are number of online mobile app developing platforms are available. We can learn and develop our own mobile

app using those online platforms. Among them MIT App Inventor is one of the best mobile app developing platforms for learners. Using this MIT App inventor we can develop our own Virtual Library Mobile App as an effective tool for providing reference services to user community in the COVID-19 scenario.

MIT App Inventor:

MIT App Inventor is a web application integrated development environment, originally it is developed by Google and now it is maintained by Massachusetts Institute of Technology (MIT). Its visual programming environment allows everyone to build fully functional apps for Smartphones and Tablets. Its blocks-based tool facilitates the creation of complex, high-impact apps in significantly less time than traditional programming environment.

IDSGRC: A Virtual Library Mobile App

When I was thinking about how to provide needed information services to the user community in the COVID-19 scenario, one thing popup in my head that is now a days everyone have smartphones and internet. So I decided to develop a mobile application to provide information services under the concept of virtual library system or virtual reference service. And as a result I have developed a Virtual Library Mobile App Called IDSGRC.
Initially I started to develop this app for a particular group of user community who are affiliated with IDSG Govt. First Grade College Chikkamagaluru, Karnataka. So I entitled this app as IDSGRC means IDSG Resource Centre. But depending on the content of this app I can say everyone who is studying in Primary level to Post graduation level can use this app for needed information.

An Overview of the App:

The following figures will explain about the app, what is the content it has, and how can user retrieve needed information using this app.
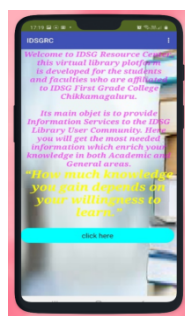
Figure 1: Welcome Screen   Figure 2: Main Screen (IDSGRC)

It is the opening page of the app. It is briefly reveal the purpose and objective of the app. At the bottom of the text it has a button called "click here". The user must click on the button to enter the information area.

It is the main page of this app here I categorized the entire information sources into 4 categories like CAS (Current Awareness Service), GK (General Knowledge), RS (Reference Sources), eBooks. And also it has extra 2 icons that take the users directly to their college and library websites it will help them to frequently check the sites for latest notifications announced by the library and the college.

Figure 3: Current Awareness service

It shows that user can enter the resource area which he wants by giving a simple touch on the icon in the main page. One touch can take user to the list of similar information sites which are listed attractively using buttons in MIT App inventor. The only thing the user has to do is just touch the button or title which he wants to see, it will take the user to desired site. CAS will provide newspaper service to keep users well informed about current events. It contains 2 local language, 1 national language, and 1 international language newspapers. And it also has one more option that is "Newspaper Hub" it will provide all major open access newspapers of the world.

Figure 4: General knowledge

Most of the graduate students are planning to prepare for competitive exams, this thing keeping in mind I have created one more icon that is GK means General Knowledge. Some of the India's top most general Knowledge sites are listed in this page and these sites are intended to provide information for examinations like IAS, KAS, KPSC, Banking, SSC, RRB, and many more central and state government exams.

Figure 5: Reference Sources

Here user will get online reference sources such as Dictionaries and Encyclopedias. Users can use these reference sources when they need by clicking on the button/title of the reference sites listed on the screen.

Figure 6: ebooks

It is one of the excellent features of this app. It directs the users to open access ebook sites such as DOAB, HATHI Trust, and Million Book Project. And here users can also access NCERT, State Syllabus text books with KTBS and NCERT websites. And Post-Graduation student can access their study materials with e-pgpatasshala website which is listed on the screen.

Conclusion

We library professionals have to take this COVID-19 scenario as positively and just think it's an opportunity for all of us to think more in digital sense like how to provide services beyond the walls. And how to utilize the open access information sources and advanced technologies to provide information services to the user community without any physical interaction between library and the user community.

Refernces

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