Virtual Reference Service through Wiki site
Developed by MediaWiki:
An effective tool for Librarians in COVID-19 Pandemic Scenario

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ABSTRACT
The paper reveals the responsibility of the library professionals in present world which is severely affected by COVID-19 pandemic. Everyone aware of COVID-19 pandemic, it is very badly affected on student’s life in the name of lockdown. A Librarian how to face? How to serve the students? And what is the role of Librarians in COVID-19 pandemic situation is described in this paper. The paper briefly explains how library professionals can provide effective virtual reference service to user community by using MediaWiki software and open access information sources.


1. INTRODUCTION
The impact of pandemic COVID-19 is affected on each and every sector around the world. Especially the education sector is badly affected by this pandemic. To save the people from this COVID-19 government has enforced the lockdown and this lockdown is very badly affected on student’s life. Because students stopped to move schools, colleges and all educational activities halted for some days.

The outbreak of COVID-19 has revealed that change is inevitable. As a result, each and every government and non-governmental organizations take a step towards digital transformation of their services. Educational institutions adopted some techniques which have not been used before. The educational system has been struggling to survive the crisis with a different approach to wash away the threats of the pandemic COVID-19.
1.1 Virtual library System
Virtual libraries provide remote access to various kinds of information sources such as learning materials, Journals, Magazines, Newspapers etc.

1.2 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.

1.3 Role of Library Professionals
The pandemic COVID-19 is created a new world which does not allow people to come out from their home in the name of lock down. All education system is paused so educational institutions are decided to reach the students through various online platforms and they succeed in this way. But only teaching is not enough for students to prepare for academic exams and learning along with teaching they also need reference sources to understand the concepts which are thought by teachers and to achieve good academic score in their academic exams.

In an educational institute the responsibility of providing needed information to student community in laid on the shoulders of Librarians. In such situation librarians have to think in different ways like how to reach the students without any physical interaction? How to serve the needed information to student community through online platforms? All of a sudden, a library cannot be able to transform into digital library it takes some time. But there are n number of free reference sources available on the web and also a number of open-source software’s are available by using these two things the librarian can provide virtual reference service to student community. In such conditions only thing the Librarian has to do is connect the right information to right user at the right time. And the MediaWiki is a software that helps us to provide virtual reference service through a featured website. By this paper we are going to say that how Library professionals can provide virtual reference service to the user community by using MediaWiki software.

2 OBJECTIVES
- To exhibit how to utilize the open access resources and freely available software MediaWiki.
- To present how to provide Virtual Reference Service by using MediaWiki.
- To show how to reach the needed information to user community in COVID-19 pandemic situation.
- To satisfy the user expectations.
- To engage users with the library services in COVID-19 scenario.

3 REVIEW OF LITERATURE
The paper also presents a brief overview of research literature represented on transformation of library services and the initiatives taken by library professionals for providing effective library services to the user community in pandemic COVID-19 situation.

Anna Maria Tammaro (2020) conducted a study on COVID-19 and Libraries in Italy. She examined that Italian Libraries continued to offer online services during closure by giving access to digital libraries and reference sources. A renewed online communication using different tools from the phone to video conference and social
media, has been experimented with community engagement. The COVID-19 emergency pushes for a transformation of libraries and new vision of services which focusses on new relationships with communities.

Bharathkumar V. (2020)\(^2\) described the responsibility of library professionals in COVID-19 situation, his work reveals how to provide information services to user community in the critical situation resulted by COVID-19 pandemic. It also gives new idea about how to provide information services using open access information sources and MIT App Inventor: the mobile application developer.

Konstantina Martzoukou’s (2020)\(^3\) conceptual paper Academic libraries in covid-19 a renewed mission for digital library says that academic libraries move forward, they have a renewed mission to help learners in online space to become both information rich and digitally competent. The paper also revealed the emerging challenges and opportunities for information dissemination.

Shiva Khanaujia Shukla and Praveen Babbar (2020)\(^4\) study described that how remote access-based library services can be fruitful in present pandemic COVID-19 situation with the example of JNU library along with other significant current challenges and solutions.

Bharathkumar V. (2017)\(^5\) conducted a survey on user satisfaction and their information seeking behavior. The study revealed a complete picture of library use pattern, information seeking behavior of the students and the services rendered by the post metric hostels in Chikkamagaluru district. The study finds out the information needs of the students of various backgrounds.

4 MEDIAWIKI

Mediawiki software helps us to collect, organize knowledge and make it available to user community. It is powerful, multilingual, extensible, customizable, reliable, and free of charge. Many of companies and organizations developed their website by using MediaWiki software.

It is a free server-based software, licensed under GNU General Public License (GPL). It is designed to run on a large server from a website that gets millions of hits per day. It is an extremely powerful, scalable software and a feature rich wiki implementation that uses PHP to process and display data stored in a database such as MySQL.

We can easily create different pages in MediaWiki by using simple MediaWiki’s wiki text format so that users without knowledge of HTML or CSS can create MediaWiki site.

4.1 Installation

We can easily install the MediaWiki software to our laptops and desktops, for installation it needs the following minimum requirements.

- Web server – To serve the requested pages to the client browser.
- PHP – It is the programming language in which MediaWiki is written and is required in order to run the software.
- Database server – To store the pages and the site data.

4.2 How it works?

MediaWiki is written in the PHP programming language and it stores all text content into a database. After the installation we have to complete the configuration process, then we have to login our MediaWiki site on web
browser it will display a default MediaWiki page. Our website developing work will begins from here, only thing we have to do is download the required extensions and commands from mediawiki.org, locate the extension in MediaWiki directory and run the command in MediaWiki PHP file. The software has more than 1000 configuration settings and more than 1800 extensions available for enabling various features to be added or changed.

![MediaWiki Commands in PHP file](image)

**Figure-1: MediaWiki Commands in PHP file**

5 **Librarian can provide Virtual Reference Service by using MediaWiki.**

The bellow image is the representation of an example website which is developed by using MediaWiki software. It describes how can we provide Virtual Reference Service to user community in COVID-19 situation by using MediaWiki software.

![Example Website developed by using MediaWiki software](image)

**Figure-2: Example Website developed by using MediaWiki software.**

MediaWiki enables us to create a number of pages so we can create as many pages as we need. and we can list the main pages at the left side of the site it is called as navigation bar. The navigation bar provides links to other related pages.
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Figure-3: Navigation Bar

MediaWiki allow us to upload the images as many as we need and also it enables to provide hyper link to words and images by using these features of MediaWiki we can organize various types of information sources like Newspapers, Magazines, Textbooks, Reference sources, Informative sites etc. And one of the excellent features of MediaWiki is Popup. Popups shows a brief note about what the images and words contain. By moving curser on the images and words, user can get to know what type of information he is going to access. MediaWiki has more than 1000 different features but by using minimum features we can create a Virtual Reference Website and we can serve the user community in an effective way by providing needed information through this website.

Figure-4: Arrangement of Information Sources in MediaWiki Website.

Just user has to click on the images, one click will take him to the desired information site.
CONCLUSION

Life is unpredictable anything can be happening at any moment. It is the lesson all of us thought by COVID-19 pandemic. Take the present situation positively and take it as an opportunity for library professionals for executing their ideas and talent with newly emerging technologies. I would like to conclude this paper by quoting Simeon Preston Bupa’s words “The biggest part of our digital transformation is changing the way we think.”

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