1. <u>Abstract</u>

Contents

"Significance of the Web 2.0 technology in the Services of the Academic libraries: Proposed model for the university libraries of the Gujarat State."

1. Introduction

The paradigm shift in library user's expectations came in to effect with emergence of new technology and online platforms. The library users have become more independent in choosing and using library services. For instance, they can access library online databases at anytime and anywhere, register to receive notifications on a topic of interest via email, or comment and give feedback on the usability of the library website. These mean that they can flexibly use library services as well as partially contribute to the service improvement.

1.1 Rationale of Study

Just a few years ago Social media or WWW was seen by many librarians as having not much relevance in a professional context but to use as a form of entertainment. But in recent years the way it is used by the user community and libraries facing problems in user engagement has become an important factor. Web 2.0 is now widely used by librarians all over the world to accomplish various goals and objectives.

A literature reviews also give way to conclude that web 20 and Social web lead academic librarians towards effective methods of library services and student outreach programs. The management of Library 2.0 will be resulted in meaningful and substantive change in hybrid environment of today's era. It is

felt that if the final goal of library is to promoting its services and reach to the end user to fulfil their needs, Web 2.0 is helping to achieve this goal, It should be actively pursued. In the new era of change traditional user are more aware of possibilities of using Google or other technology then to use library. So the expectation of user form library are to deliver high quality, comprehensive, User Friendly new generation services that have grown tremendously in the recent years.

1.2 Objectives of the Study

- ❖ To discover the library services that are cubing with 2.0 technologies
- ❖ To investigate the present situation of the university library of Gujarat state in adaptation of 2.0 or semantic technology in their operations.
- ❖ To define obstacles and problems in utilizing web 2.0 in university libraries of Gujarat State from uses perceptive.
- ❖ To investigate the relationship between library and user in the new era.
- ❖ To investigate the acceptance and use of web 2.0 technologies by users of university libraries of Gujarat state.

1.3 Hypothesis of Research

- ❖ Performance expectancy has impact on students' behavioural intention to use Web 2.0 technology for library use.
- ❖ Effort expectancy has impact on student behavioural intention to use the Web 2.0 technology for library use.
- ❖ Social influence has impact on student behavioural intention to use Web 2.0 technology for library use.
- ❖ There is no difference of opinion of Age, Gender & Designation of Library users on PE

- ❖ There is no difference of opinion of Age, Gender & Designation of Library users on EE
- ❖ There is no difference of opinion of Age, Gender & Designation of Library users on FC
- ❖ There is no difference of opinion of Age, Gender & Designation of Library users on SI
- ❖ There is no difference of opinion of Age, Gender & Designation of Library users on BI
- ❖ There is no association between usage web 2.0 tools for academic use and Age, Gender & Designation of Library users.

1.4   The Importance of the Study

The study examined the Importance of Web 2.0 tools utilized by Central Libraries and its services in particular Gujarat State universities. With regard to the use of Web 2.0 tools to provide services to its users, the study is anticipated to contribute to a better understanding of the field of librarianship. The study proposes a variety of effective uses for Web 2.0 tools for academic libraries. One of the key goals of the Vibrant Gujarat 2017 Summit, which was organized by the Gujarat government to promote academic integrity, is to develop more private and deemed universities in Gujarat State. More and more private and deemed universities are establishing in Gujarat State as a result of this summit.

1.5   Scope of the Study

The purpose of this study is to provide an overall picture of the use of Web 2.0tools and technologies in the university libraries of the Gujarat State and Check its Significance on the services of university libraries. Present study covers 16 University libraries of Gujarat State which are providing services through Web 2.0 tools.

1.6   Limitation of Study

Though this study has been carried out systematically and scientifically, it has some limitations due to reasons beyond control.

- ❖ The Study is limited to Universities of Gujarat state only.
- ❖ Other than University libraries public library, Special Library, School Libraries are not covered in present study.
- ❖ Institute of National importance also not covered based on its specific nature.
- ❖ Libraries which are not integrated Web 2.0 tools in their website are excluded from final survey.
- ❖ Open Universities based out of Gujarat state which have distance education centres in Gujarat state like IGNOU, KSOU, Symbiosis University and others.

1.7   Selection of Samples

Total 16 University Libraries of Gujarat State have been selected for final Sample survey. Total 490 Samples have been selected with a simple random sampling technique.

1.8   Data Collection

In order to achieve the objectives of present study, Primary data have been collected with validated structured questioner. A descriptive survey was conducted which sought to ascertain the use of we2.0 in the academic library websites. A separate structured questioner was used for library users, which consist of faculties and students- to know user's expectation from libraries and

perception of web 2.0 technologies for academic use. Questionnaire contains open-end as well close-ended questions. The questionnaire was specifically designed to accomplish the objectives of the study.

1.9 Data Analysis

The data generated through structured questionnaire were analysed with suitable statistical tools for the purpose of data analysis and interpretation. The collected data had been scrutinized, Edited and validated. The data is arranged, processed, classified and brought into the logical order. They are summarized and tabulated for the purpose of analysis, interpretation and producing meaningful findings and suggestions. The data analysis was carried out with the help of statistical software SPSS and Smart PLS.

1.10 Findings

❖ Website is a mirror to any institution. Out of 54 total universities only 18 University libraries have dynamic website of library having integration of Web 2.0 tools. The Hansa Mehta Library of MS University of Baroda, Vadodara has maximum usage of web 2.0 tool amongst all universities of Gujarat State

❖ **Under Demographic Profile analysis**, Total of 490 respondents, 262 (53.5%) were male and 228 (46.5%) were Female. If we can see Age wise respondents, they are – 24 (4.9%) were below 20, 183 (37.3%) were age group of 21 to 30, 167 (34.1%) were age group of 31 to 40, 75 (15.3%) were age group of 41-50, 36 (7.3%) were age group of 51- 60 and 5 (1%) were above 60 age group. Designation wise respondents are - 113 (23.1%) UG or PG Students, 99 (20.2%) were Research Scholars, 231 (47.1%) were Assistant Professor grade, 40 (8.2%) were Associate

Professor Grade and 7 (1.4%) are Principal/ HOD or Dean of any Faculty.

❖ **From Basic Usage of Library**, Internet and web 2.0 tools, we can say that Majority of respondents 25.1 % are using library on daily basis while 116 % and 19.2% using University library on every alternate day or twice a week. Only 16.7 % and 6.3 are using fortnightly and once a month. Overall mean rank for frequency of library visit by users is 3.22, which indicate positive usage of library.

❖ 71.2 % users have stated that they have visited library website while 28.8 have not visited library website during their tenure of usage of library.

❖ Majority of Respondents are using internet on daily basis for academic purpose.

❖ Only1.6% users have admitted that they are not using internet for academic purpose.

❖ Majority of respondents 52.4 % have admitted that they are spending 1-3 hours daily on internet and 13.7 % and 8.6 % users have admitted that they are using internet for 3-5 hours and more than 5 hours daily. Only 25.3% users have stated that they are spending less than one hour on internet.

❖ Majority of respondents have admitted that they are dependent on internet or helpless without internet. Which indicates higher usage of web for day to day work?

❖ 83.1 % uses have reported that their university library is providing internet facility.

❖ Majority of respondents are frequently using social Media tools. Only Blogs like Blogger and WordPress (Mean rank 2.67), and RSS feeds (Mean Rank 2.63) are lest used tools.

- ❖ Majority of respondents have reported their main purpose of using web 2.0 tools are Academic (Mean Rank 4.26) and connect with friends and family (Mean rank 4.02).
- ❖ 93.5 % Respondents have opinion that Library should provide its facilities through web 2.0 tools.
- ❖ Majority of respondents (Average Mean Rank 2.47 on Likert scale of 3) demanded that library should provide various services with help of web 2.0 technology.

- ❖ **From Mann-Whiteny Test of Influence of Gender on all constructs,** Influence of Gender on PE: It was found that there is no difference in opinion of gender on PE. Opinion of female and male are same about Performance Expectancy.
- ❖ Influence of Gender on EE: It was found that Opinion of female and male are same about Effort Expectancy.
- ❖ Influence of Gender on SI: It was found that Male and Female have significant influence of their tutors/teacher, friend and family members etc. on use of library services but Main campus staff does not have any influence over Gender.
- ❖ Influence of Gender on FC: It was found that there is no difference in opinion of gender on FC. Opinion of female and male are same about Facilitating Conditions.
- ❖ Influence of Gender on BI: It was found that there is no difference in opinion of gender on Behavioural Intention. So opinion of female and male are same about Behavioural Intention.
- ❖ **From Kruskal Wallis Test on the basis of Age of Respondents,** Influence of Age of Respondents on PE: It was found that Respondents of

different class of age group have difference in opinion about construct statement - they can get accurate information by using these services.

❖ Influence of Age of Respondents on EE: Respondents of different class of age group have difference in opinion about using the website even at first visit.

❖ Influence of Age of Respondents on SI: It is found that opinions of Respondents of difference class of age group are same.

❖ Influence of Age of Respondents on FC: It is found that Respondents of different class of age group have difference in opinion about skills to use these services.

❖ Influence of Age of Respondents on FC: It is found that opinions of Respondents of difference class of age group are same about BI.

❖ **From Kruskal Wallis Test on the basis of Designation of Respondents**: Influence of Designation on PE: IT is found that Opinions of all the designated persons are same for PE.

❖ Influence of Designation on EE: It was found that opinion of all the designated persons is same for EE.

❖ Influence of Designation on SI: It was found that opinion of all the designated persons is same for SI.

❖ Influence of Designation on FC: It was found that designated respondents have difference in opinion about recourses to use Web 2.0 services as well as services are compatible with the computer.

❖ Influence of Designation on BI : It was found that designated respondents have difference in opinion about continues using these Web-based services in their studies, recommend web 2.0 library services and using library services after completion of their study/ Job tenure for academic Purpose.

❖ **From Exploratory Factor Analysis:** Findings from Exploratory Factor Analysis of Obstacles to using Web 2.0 Library services: Respondents have shown their opinions regarding various obstacles which will be faced by users in implementation of Web 2.0 Library services. It is found in factor Analysis that all obstacles can be grouped in to two main variables. There are mainly two factors which defines all obstacles they are: Lack of Familiarity, Competence and Assistance and Unwillingness to change the mind-set of users and library staff.

1.11 Hypothesis Testing

A. Hypothesis Results - Mann-Whiteny Test

i. H0: There is no difference in opinion of Gender on PE – Accepted

ii. H0: There is no difference in opinion of Gender on EE - Accepted

iii. H0: There is no difference in opinion of Gender on SI - Rejected

iv. H0: There is no difference in opinion of Gender on FC - Accepted

v. H0: There is no difference in opinion of Gender on BI – Accepted

B. Hypothesis Results - Kruskal Wallis Test

i. H0: There is no difference in opinion of Age of Respondents on PE Accepted

ii. H0: There is no difference in opinion of Age of Respondents on EE Rejected

iii. H0: There is no difference in opinion of Age of Respondents on SI Accepted

iv. H0: There is no difference in opinion of Age of Respondents on FC Rejected

v. H0: There is no difference in opinion of Age of Respondents on BI Accepted

vi.   H0: There is no difference in opinion of Designation of Respondents on PE Accepted

vii.   H0: There is no difference in opinion of Designation of Respondents on EE Accepted

viii.   H0: There is no difference in opinion of Designation of Respondents on SI Accepted

ix.   H0: There is no difference in opinion of Designation of Respondents on FC Rejected

x.   H0: There is no difference in opinion of Designation of Respondents on BI Rejected

C. PLS SEM Results

i.   Effort expectancy has impact on student behavioural intention to use the Web 2.0 technology for library use.

ii.   Facilitating Condition has impact on student behavioural intention to use Web 2.0 technology for library use.

iii.   Performance expectancy has impact on students' behavioural intention to use Web 2.0 technology for library use.

iv.   Social influence has impact on student behavioural intention to use Web 2.0 technology for library use

1.12   Recommendations:

❖ It is found that out of 54 total university library listed for present study only 18 have Library website with integration of Web 2.0 tools. Other University Libraries should develop their library website with integration of Web 2.0 tools in this competent and ICT environment.

❖ Some of University library have developed their website but it is not being updated from time to time. They should update content of website more user friendly.

- ❖ Some of University libraries having integration of Web 2.0 tools like Facebook, Instagram, Personalised messaging services, RSS, YouTube, Blog, Live OPAC but they are not being updating regularly. Therefore they should update their social media platform at least once in a week to stay connected with users.

- ❖ It is observed in literature review and during survey visit to university libraries that Instant Messaging Services, Wikies, Podcast like services are very much loved by users. Majority of Users of library are students hence libraries have to reach where they are and disseminate information what they want.

- ❖ It is recommended that Commissionerate of higher education, Govt. of Gujarat frame policy / Guidelines for state as well as private university libraries to have live website and integration of Web 2.0 tools in services of it.

- ❖ It is observed that Majority of state university libraries are using SOUL 2.0 as their library management system and their Web-OPAC ware not live. They should update their system with SOUL 3.0 and live their OPAC as SOUL 3.0 Live Web OPAC have integration of Web 2.0 tools.

- ❖ It is found that Smt. Hansa Mehta library of The Maharaja Sayajirao University of Baroda, Vadodara have Started Daily Information Dose service, Open Knowledge Gateway 2.0 with help of Web 2.0 tools like instant messaging and other social media and RSS to stay connected with user's community. Other University Libraries also should come up with such type of innovative Ideas to connect with User community.

- ❖ University library should include the services they are provided to users with integration of web 2.0 tools through library orientation programme, Library week or day celebration, user awareness workshops and online tutorials to its maximum reach.

❖ University library should continually evaluate web 2.0 services for effective management of these tools as world of Information technology and online web is continually changing in rapid way.

1.13 Direction for Future Research

❖ Present study is focused on 16 libraries and its 490 users from Universities of Gujarat State. To make the research work more reliable, bigger and larger volumes of sample can also be considered.

❖ We have excluded university libraries having web site which are not using web 2.0 tools or having very few usage. Perceptions from those universities library users also can be done to know their demands and requirement.

❖ Private university and Government University can be compared for the said research work.

❖ University libraries that are using web 2.0 tools for services and not using web 2.0 tools for services can be compared for future generalisations.

❖ User's satisfaction survey can be conducted and role of library 2.0 services as moderating effect of user's satisfaction can be analysed in satisfaction of library services.

❖ Present study is only focused on Gujarat state, suggestions and recommendations are preferred so as to enable to imply the same on national level.

❖ Information literacy survey for web 2.0 tools can be studied on a wider scale in users of university libraries.

❖ Structural model proposed in present study can be modified based on its results and using or moderating variables analysis in PLS –SEM for further testing.

1.14 Conclusion:

The methodology and the outcomes of the presented research is of useful not only to the research community but also to the Library managers, Administrators, policy makers and LIS students and policy makers. It is providing reason to improve efficiency and workflow for library management. Since technology continues to evolve, the evaluation and implementation of new technologies become significant. It is perceived that users are in favour of something new and demand for a simplest most direct path to information irrespective of the methods that are increasingly important for end-users. In order to provide enhanced patron access and services, libraries need to manage self effectively to the optimum utilization by overcoming the issues and challenges. The model of checking Acceptance and use of web 2.0 technologies in services of University Library is also showing that users are accepting change very easily, now it is library professional who have to adopt the change.

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