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The Effect of Social Online Networking Service on Public Libraries via Critical Systems Heuristics (CSH) :A Case Study

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Abstract- Libraries can provide numerous services for users on the use of *Web 2.0 technology* by promoting library services. In the interactive *Web 2.0* environment; (SON) took hold. The Purpose of this study is to discuss on the impact of *Social Online Networking* (SON) on library services by a qualitative evaluation method. This study reviews literatures on the concepts of *Web 2.0* and *library 2.0*. Then it evaluates using Facebook as a *Web 2.0* technology tool by a framework that was introduced by Werner Ulrich in 1983 under the term of *Critical Systems Heuristics* (CSH). In conclusion, it should be noticed that there are ways that the library can attract patrons to *Social Online Networking* (SON) service.

Keywords: *Web2.0, library2.0, Social Online Networking (SON), Critical Systems Heuristics (CSH)*

I. INTRODUCTION

Libraries can provide numerous services (online and in person) for users on the use of *Web 2.0* technology by promoting library services. One of the issues rose through using *Web 2.0* technologies is social networking media such as Twitter, Facebook, MySpace and so on. Based on studies, using Facebook by libraries and librarians is expanded. This study tries to access the quality of this tool use in public libraries.

Today, there are many libraries that are experiencing *library 2.0*. Thus library is not only a place where people can just search books and journals, but they also cooperate with a community. The purpose of library is not implementing new services; it can go where its users are. This means that libraries have to consider which *web2.0* services are being used by the users and think about how the library can use these services to help users or bring them closer to the library. This study reviews literatures on the concepts of *Web 2.0*, *library 2.0* and *Social online networking* then evaluates using Facebook as a *Web 2.0* technology tool by a Framework that was introduced by Werner Ulrich in 1983 under the term of *Critical Systems Heuristics* (CSH). This paper uses a qualitative methodology because the experience

of *Social Online Networking* (SON) use is a subjective and time-specific experience. A qualitative methodology has been chosen because the purpose of the project is to purposely explore SON use

within a particular environment, rather than to separate it from other variables as in quantitative research. The chosen case is a public library that is located in America. Kansas public library established in 1873 as the public school library and then the library changed into a public library. It has ten branches and locations. It had over 2,382,951 clients used the Library system last year.

II. WEB2.0 AND SON SERVICE

The term *Web 2.0* was supposedly coined in 2004 by Tim O'Reilly, although it described technologies that had been developed earlier in the 1990s. In fact *Web2.0* and its technologies have been in existence since the beginnings of the Internet and the term *Web2.0* refers to the growth of online services that provides assurance collaboration, communication and information sharing. It represents a shift from the passive experience of static read only web pages to the participatory experience of dynamic and interactive web pages. There is an important view point about *Web2.0* that it is not just information linker, but also linking people and helps to create a network of people. Dames [1] has stated each *web 2.0* tool that permits two or more persons communicate and connect although they are in different locations is *Social Software*. Thus there are some sites that allow persons to experience and create a network. The sites were called *Social Online Networking*. Farkas [2] has explained *Social networking* services can generally be explained as Internet- or mobile-device base that social places are considered to help communication, partnership and information sharing crossways networks of links.

III. LIBRARY 2.0

The concept of library2.0 was introduced by Michael Casey. There is not an exact definition of the term library2.0 and there is much dispute over it, as an example Crawford [3] has found 62 different views and seven distinct definitions of the term. However he quotes a definition of library2.0 by Michael Casey:

"Library 2.0 is a model for library service that reflects a transition within the library world in the way that services are delivered to library users. This redirection will be especially evident in electronic offerings such as OPAC configuration, online library services, and an increased flow of information from the user back to the library. The concept of Library 2.0 is borrowed from that of the Web 2.0, and follows some of the same philosophies underpinning that concept. The proponents of this concept ultimately expect that the Library 2.0 model for service will replace outdated, one-directional service offerings that have characterized libraries for centuries."

Also Maness [4] has described the theory of library2.0 by four criteria:

- "It is user-centered,
- It provides a multi-media experience,
- It is socially rich, and It is communally innovative."

IV. SOCIAL ONLINE NETWORKING (SON) IN PUBLIC LIBRARIES 2.0

Libraries were other places that have the potential to implement social software tools. There are some literatures to discuss how social software is recently being used in libraries tending to be either broad, or be case study literature. There are two kinds of case study performers, those that are considered only a single social software tool such as Casey and Savastinuk [5], Stephens [6] and those that are discussed a case study of a wide range of social software tools within the same paper like Blogs Clyde [7], RSS feeds and bookmarking Etches-Johnson [8], Pival [9] and so on. However the both types of case studies were discussed in academic library or other types thus there are few literature searches on social software tools in public libraries. The chosen case in this paper is public library that uses Facebook as an OSN service. In the twenty- first century libraries have great potential for playing an even more critical role, helping to create a culture of continuous

learning and enabling everyone to access, navigating and enjoying the validity of material on the internet. Some materials describe four main strengths of libraries which can be realized as the four "S"s, "Spaces, Staff, Stock and Services". In fact these four key elements can provide value for any types of library [10].

V. CRITICAL SYSTEMS HEURISTICS (CSH) FRAMEWORK

Those criteria are very general thus the author chose a framework that helps to better assessment in order to show the impact of Facebook in public libraries. The framework is Critical systems heuristics which was introduced by Werner Ulrich in 1983. It is a framework for reflective practice based on practical, philosophy and systems thinking. It is claimed that the use of CSH enabled the researcher to draw rich qualitative data that captured different world-views, values and boundary judgments of social actors representing the different groups of stakeholders are involved in or affected by the policy. The methodological center opinion to be looked at all problem definitions, proposal for development, and evaluation of outcomes rely on previous judgments about the applicable total system. CSH suggests a framework of "boundary categories" that translates into a checklist of twelve critical boundary questions. The evaluation table that accompanies this checklist outlines a framework of things to look out for, and covers basic questions in the arrangement of categories. [11]

<p>The client beneficiary's role</p> <p>Q1 who ought to be /is the client or beneficiary of the system?</p> <p>Q2 what ought to be/is the purpose?</p> <p>Q3 what ought to be/is the measure of performance?</p> <p>The decision-maker's role</p> <p>Q4 who ought to be/is the decision-maker?</p> <p>Q5 what conditions for successful implementation should be/are under the decision-maker's control?</p> <p>Q6 what conditions should be/are out of the decision-maker's control?</p> <p>The expertise's role</p> <p>Q7 who ought to be/is involved in the research and development of the system?</p> <p>Q8 what sort of expertise ought to be/is involved and how?</p> <p>Q9 who or what should be/ is assumed to be the guarantor/guarantee of the system that will work?</p> <p>The witness's role</p> <p>Q10 who should/does represent the affected?</p> <p>Q11 to what extent should/are the affected be given the chance to escape or challenge the promises and premises of the involved?</p> <p>Q12 what worldview should/does underlie the design of the system?</p>
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Fig1: checklist of boundary questions

VI. RECORDING TABLE FOR BOUNDARY CRITIQUE

<div> <div>Mode →</div> <div>Boundary judgment ↓</div> </div>		"Ought"	"Is"	Critique "Is" against "Ought"
Source of motivation	Client	Early learners=kids, Pupils +students=teens , and Older students=Adults	Pupils +students=Teens and Older Students=Adults	All school age children will be able to join FB library and library can have online plan for them as reading activity in summer and teach online culture to kids.
	purpose	Teens+ Adults= to develop their technology skills like editing and customizing content, sharing their creativities, interests and experiences.	There are few customers that wrote their experience about library services, like their comments on library galleries, exhibitions and classes.	The library discussion board is weak and the library FB could not encourage customers to participate in discussions.
	Measure of improvement	Criteria or indicators for measuring performance would vary from different stakeholders and perspectives, e.g. for client and library organization- Increasing the number of patrons who use the service purposefully (e.g. learning network) and the service can help them to reach their purpose.	Most of messages in the library FB page are written by the library and are about library events.	There are other online services that most of users are familiar with such as chat, email and blogs thus the patrons have less interest in FB page.
Source of control	Decision - maker	Two types of decision-maker= formal = administration of library, staff and informal= patrons and library beneficiary	Actually the resources determine the real decision-maker in library and its role.	The "Is" is close to "Ought" in this case.
	Resources	Resources that are controlled by formal decision- maker=budget, planes and human resources and Resources of informal decision-maker= their interest and awareness of the service (FB)	The library allocates its budget that what to meet the community needs the best?	The resources are allocated exactly e.g. they allocate 1000 for customer services in 2010-11
	Decision environment	Informal decision – maker =budget, Acceptance of staffs, staffs training about new service, resistance of staffs and marketing.	Actually the library overcomes the resistance of its staff and the staffs accepted it, in order that they hold classes about the service, under name of what on earth is a facebook and what am I supposed to do with it?	Somehow the library could go along with their s in order to hold useful classes such as internet and computer.
Source of control	professional	It is not so much important that who has a high academic degree. The service is to share experience, knowledge and expertise of people. FB page of library should have central role to play in transferring knowledge and people with poor experience of formal education need extra encouragement.	People who are unemployed who lack the access to the internet and older people are among those currently less tending to experience the benefits suggested by online service.	Libraries are learning start up organizations. They should help people get started with learning whether those are children or adults, poor or rich and educated or uneducated. They should provide the foundation for a learning culture with its service.

	expertise	ICT skills, access to Internet, support and encourage staffs by management, information science, attractive and useful plan to encourage patrons to use the service, privacy and security training	The library holds some classes such as computer and internet.	The class shows that the library is going forward a new era.
	Guarantee	Everyone seeking a book through the library whether or not it is still in print, all babies and new patrons are invited to become library members, all school children can join a homework club in FB or other groups e.g. reading groups that is as a summer activity, any adult Struggling with adult basic skills, any community group can turn to the library for managing community content online and anyone can ask a library for information through a national online service can be guaranteed to success.	Seeking through the library online service is in library website, there is some homework clubs for kids and teens in library website and people can ask their question by email and chat.	The library needs to integrate its services. In order to better integration searching through the library catalogue can be possible by FB, to gather people and its community by FB, homework clubs for teens and kids again can be possible by FB.
Source of legitimacy	witness	Next generations, and also independent organizations.	Current generation. Dependent organizations. There is no need for representation since the interest of the affected is automatically built in regularity system	If a decision is wrong, the system will be flexible and has solution to overcome the problems.
	Emancipation	The legitimacy should lie in the library organization at first, among staffs-the service should fit with library culture then the library encourages the use of the service to its patrons by correct marketing also the legitimacy should be put among customers.	Every one has the right to challenge the freedom of choice.	To offer different types of services and growth of technology it can be a good example for freedom of choice and it gives the chance to escape or challenge the promises of those that are involved.
	World view	1-it ought to reduce digital division, the modern services ought to present increasingly depending on partnerships with education, learning and health, culture online and developing closer relationship with school age children and online catalogue of library	The library hold classes without registration in order to reduce digital division or to keep their patrons use serving with distinction by its friend organization and also use different types of social media technology. Its discussion board in FB is not able to encourage patrons.	Library should use FB as a tool that first is fit with library goal and then with its patrons goal. The reasons patrons use library FB is to share their experience, knowledge and interest by participating in discussion board of library, seeking in library catalogue thus the library that fit its goal with patrons can encourage them to use the service

Table . Recording table for boundary critique

VII. CONCLUSION

It is clear that the use of social software among library members has rapidly increased and those tools whether in library or other places was considered to meet society information needs. A decade ago libraries implemented one, or perhaps two, applications. Today, libraries implement multiple applications. Usual uses of SON service consist of development library recourses, connecting staffs with users, and

searching library catalogues and other online recourses. The goal for using this tool is not only connection staffs with users but also communication users with users, and staff with staff to share information, market library services and make possible communication. While most of libraries are experimenting social online networking such as Facebook, they are not able use it useful. For example they use it only in one dimension, a board or bulletin for their events like exhibition events. The

library couldn't be successful to connect staff with users and users with users through FB service. It may have several reasons such as diversity of social software tools that patrons are more familiar with, like email or chat or the lack of service attraction for their patrons. As a way to attract patrons is to ask patrons in Facebook what books and videos they would like the library to order for them and patrons are really requesting things there or, the library is allowing them to know when the materials are ordered.

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