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Application of Social Media and Video Conferencing in Smart Library Services

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Abstract:

This paper considers how important the application of social media and video conferencing in smart libraries can enable libraries deliver its services effectively. A smart library provides ways in which libraries can function effectively in a less structured, but in a creative and innovative way. With this concept of smart libraries, this paper develops and outlines the importance of applying social media and video conference to aid the smart libraries in delivering its services effectively. Social media along with video conferencing helps the library user to have direct access to the library and librarian without physically visiting the four walls of the library. The idea of smart libraries is to find ways to answer and attend to users needs and demands. As a result of the popularity of social media and video conference in the 21st century, libraries can key into them to exploit its potentials in effective service deliveries. By creating social media accounts like Facebook, twitter, whatsapp etc and video conferencing applications like zoom, skype, google hangouts etc. for a video chat with potential library patrons. The paper discusses how social media and video conferencing could be exploited and applied in smart libraries for effective service delivery. Conclusion and Recommendations were made for the benefit of the libraries.

Keywords: Social Media, Video Conferencing, Smart Library.

Introduction

The advents of the Internet and information explosion are alienating information seekers to the library. Prior to the development of the web and avalanche of information therein, the library was the chief source of information to all in the society. For the past decades, there has been a decline in users' patronage of the library due to overabundance of information on the net. Consequently, the demands for electronic based information services by users increases day by day and the reliable source of having relevant information were also a necessity. Interestingly, libraries have survived through technological changes and has in fact been adapted and shaped through various technological innovations over time and in time (Omame, Gombe, Alex-Nmecha, & Gomma, 2019). From the era of stone writing, papyrus, parchment, microforms, paper and now the electronic media, libraries have devised means of acquiring, searching and managing contemporary media in tandem with the current demands and information needs of users. In the effort to uphold the relevance of libraries through time and to meet the dynamic needs of its users at every given point, libraries have explored and incorporated various technologies for creative, innovative and optimal services delivery. Hence, the evolution of digital, virtual and now smart library.

Smart library is user-centered, the users are the nucleus of the library. Hence, the services offered are designed to cater the demands and information needs of the users. The "smart" in "smart library" refers mainly to efficiency due to the use of technologies and to an automatization of processes to facilitate the working and everyday environment.

Social media is a collective term for the use of online tools and services in a computerised and digitalised format. It is a platform where individuals and organizations can build social relationships among like minds who share the same interest or goals, activities and personal matters.

Video conferencing is a live connection or a visual communication session involving two or more users regardless of their location for the purpose of communication, usually involving video and audio and transmission in real time. It is a special case of teleconferencing, it implies that live video stream is been used. It is the use of multimedia application that involves two different media in digital form

Concept of Smart Library

The term “Smart Library” is used to refer to a vision of libraries of the future, in particular, it was coined from the concept of “Smart City”, but what does it mean for a library to be “smart”, and what is the implication? The term “smart” refers mainly to efficiency due to the use of technologies and to an automatization of processes to facilitate the working and everyday environment (Freyberg, 2018). The term “smart” means “flexible, adaptive, extendible, and interactive”. Smart library is a self-driven library. It combines hardware and software systems with a wide range of opportunities for searching and providing necessary information to virtual or remote users according to their inquiries and requirements (Baryshev & Babina, 2016). Smart library also denotes a library that provides services which are remotely accessible, interactive, innovative, informative, actual, changing and international. The users are the center of the smart libraries. The main purpose is to satisfy information needs of the users as individuals, using modern information technology.

Just like the promise of a smart city or smart house, to relief life’s stress by automating “trivial” housework, in libraries, book bots, robots and intelligent systems are installed to handle less demanding tasks such as shelving, shelf-reading, user registration, charging and discharging of books, etc. While many librarians might feel relieved from those unpleasant tasks and are happy to focus on more sophisticated activities, the concern of becoming redundant or a general fear of machines taking over their jobs also arises. But it is the way forward for libraries to remain relevant in this era of information explosion.

Concept of Social Media

According to Beal (2018) and Techopedia (2018), social media or social networking is a term that is used to denote websites or online platforms that allow users to create public profiles, initiate conversation, create social groups and share information within that website and build social relationships or networks in order to interact with other users or members of that same website. Baruah (2012) however described social media as a web-based and mobile technologies used for dialogue or interactive communication. Raman (2015) opined that social media is slowly emerging as one of the favorite and most effective communication channels in the online world across different industry verticals including the academics. Today, Web 2.0 and social

media technologies have provided opportunities for learning beyond the physical library, they offer for open communication between librarians and users at remote locations. These technologies offer great potential for libraries to freely share information, connect with their users and promote their services. Henry (2011) maintained that, social media is changing the way libraries offer their services, from the way they access and acquire information and knowledge, to the way they interact with users, and most importantly, the way they form networks.

In this era of information society, social media (social networking sites) constitute a very important component necessary to bridge the digital divide as espoused in the Millennium Development Goals (MDGs). According to Multala & Moahi (n.d.), out of the 48 indicators used to benchmark progress towards the MDGs, the last three are: to increase the percentage of the population with access to telephone lines and cellular subscribers; to increase the number of personal computers; and lastly to increase the number of Internet users. Since the last decade, social media have succeeded in pulling a large population of users in the use of the Internet, the use include, among others; social interactions, information sourcing, information dissemination and resource sharing among others. Lots of people share information on social media, ranging from education, family, politics, health, security, sports, recreation, business opportunities, etc., thus, social media have become a veritable and modern tool for smart library development.

Concept of Video Conferencing

Video conferencing is the technology that allows transmission and reception of audio and video data over a network for communication between users at different remote locations in real-time. Similarly, Kagan (2019) opined that video conferencing is a technology that allows users in different locations to hold face-to-face meetings without having to move to a single location together. Video conferencing can be among groups of people from different remote locations or between two-persons (point-to-point). Whichever case, each participant has a video camera, microphone, and speakers mounted on his or her computer. As the participants speak to one another, their voices are carried over the network and delivered to the others' speakers, and their captured video images streamed over the network is displayed in a window on the other participant's software interface. Multipoint videoconferencing allows three or more participants to sit in a virtual conference room and communicate as if they were sitting right next to each

other. Wikipedia (2019) identified the components required for a videoconferencing system as follows:

- i. Video input from a video camera or webcam
- ii. Video output, displayed in computer monitor, television, or projector screen as the case may be.
- iii. Audio input from a microphones, CD/DVD player, cassette player, or any other source of audio outlet.
- iv. Audio output, usually through loudspeakers
- v. Data transfer medium. This refers to the computer network through which the audio and video data is streamed. Eg. LAN, or Internet.
- vi. Video conferencing software. The software application designed to handle the video and audio compression/decompression, setting up of the conference meeting, displays the video images and other functionalities therein. The software also contains the codec (coder/decoder) that does the actual compression.
- vii. Terminal. The device that ties together all the other components. This can be a computer system, mobile phone or tablet device.

Application of Social Media and Video Conferencing in Smart Library Service Delivery

Social media has provided the platform for easy access and interaction to information and information professionals within the community. The growth and influence of social media in recent years and its popularity is undeniable. According to Kaplan and Haenlein (2010), Social media can be used as a powerful information dissemination tool in the library and also offer a way for libraries to promote its information resources and services. The core work of the librarians is sharing information so this would suggest librarians are in a unique position to implement and exploit social media to get to their users.

Social media can be used in variety of communication methods broadly summarized as broadcast messages, responses, responses to enquiries and then conversation between the library and users but regardless of the approach taken there are compelling reasons for libraries to engage with social media. Social media can give a competitive edge in time of major technological change with access to information widely available, libraries need to demonstrate the value of their

proposition. Social media give librarians a way to reach out to their users who may not have considered the library as a resource for their information needs. Ezeani & Igwesi, (2012) examined how libraries can leverage social media skills to provide dynamic library services. The authors acknowledged that social media provide important opportunities to libraries. Libraries can use these platforms for effective service deliveries. Facebook, twitter, whatsapp, blogs, flickr etc could all be employed in application of library services.

Video Conferencing also regarded as Web Cam Services is applicable in service deliveries as a remedy for communication problems in inherent text based services. This digital form includes visual elements where user and librarian can both interact just similar to face to face interview. Video Conferencing allows for improved communication abilities, enhance opportunities and productive collaboration. In the application of Video Conferencing for smart libraries, there are two main applications that could be used in smart library services for Video Conferencing include;

1. Software Based (Web Conferencing) is well suited for interviews, one on one conversations and meetings. Commonly used software for this Video Conferencing include Skype, Facetime and Google Hangouts. These softwares require mostly mobile devices to connect to other parties.
2. Hardware Based (Video Conferencing) these systems are generally more capable and reliable for larger groups or audience and for more complex setups. Many of the room based hardware systems have multiple cameras which maybe panned or zoomed depending on who in the room is speaking. These hardwares require use of computers and projectors.

The application of social media in smart libraries helps for better connectivity among library professionals and its users, provides up to date information in relevant areas of study and helps in upgrading library services to match users expectations, it is easy to update information on social media sites than on the websites. Furthermore, the application of video conference in smart libraries will also go a long way in helping the librarians to get across his clientele in an easier and conducive environment, with no challenges of time constraints, there will be an increase in productivity and employee satisfaction, it will be easier to attend to more than two clienteles a day and there will be an improvement in the competitive edge of the library services.

Advantages and Disadvantages of Social Media and Video Conferencing in Smart Library Service Delivery

According to Moreau (2018), social media has changed the way people communicate, share information resources, circulate information etc. As good as this is, there are some negative side to it. It all depends on how you are using it and who you converse with on social media platforms. Here are some of the major advantages and disadvantages of social media and video conferencing to smart library service delivery

Advantages

- i. Availability of rich e-learning resources. Social media provides richer experience for e-resources such as videos, e-books, online databases, and tutorials that can be shared very easily with the others at the click of the button. This eliminates the need for users to copy website links from a handout and have the risk of mistyping. Video conferencing in the classroom is also a significant benefit. Using social networking sites such as Google Plus allows the use of Google Hangouts. These sort of resources can be used to setup class reference sessions or class sessions where everyone can collaborate through video in real time (Hopkins, 2017). Social media also enable users to learn online at their own pace by means of listening to video blogs, podcasts, lectures and webcasts (Raman, 2015).
- ii. Easy and instant communication. With the advent of social media, we do not have to rely on our old slow medium of communication to undertake online reference service with the users, like the landlines, or manual mails. We can simply communicate through our laptops or smart phones instantly in an efficient manner that is faster than the old methods (Moreau, 2018).
- iii. Real-time news and information discovery. Social media has brought instant information sharing and dissemination. Gone are the days where one would have to wait for the 9 O'clock news on the TV or early in the morning to pick up a newspaper on the street. News feeds are now instantly shared on social media platforms and are also readily available in the library. An additional benefit is that, one can even customize his/her news sources to display news feeds only from some selected news stations/groups. (Moreau, 2018).

- iv. Increased users' collaboration and participation. Social networking sites can increase users' collaboration and participation considerably. The library users become friends with the librarians on social media and are more likely to share using information. This can lead to higher retention rates as users become more connected to the library. Faculty can use social media platforms as a way to get students to participate in class discussion. Many students are naturally shy in person, and many may not speak up in a classroom, but that may not be the case on social media. Faculty can ask questions on social media such as Twitter and students can answer those questions, by including a specific hashtag. This will not only allow the faculty to find the student answers but also allow other students to see what others are answering and establish a dialog (Hopkins, 2017 & Butikofer, 2010).
- v. Ability to connect with other users in different libraries all over the world. One of the most interesting advantages of social media is the ability to instantly connect to various people from anywhere. It is a tool to connect with your mentors, experts in your field and librarians to ask questions. It is also a platform for students to connect with their role models and get to learn from them by either following their post or chatting with them. Also, you get to know and interact with students from different regions you have never been before (Moreau, 2018).
- vi. Current and up-to-date information. Most information disseminated on social media platforms are current and up-to-date happenings in the society.

Butikofer (2010) outlined some other advantages of social media to include the following:

- i. Increased proficiency in technology.
- ii. Increased exposure to diverse views.
- iii. Development of communication skills.

Disadvantages

- i. Information overload/infobesity. Having too much information relative to your workload can cause a serious problem, especially to students. Having too many friends or followers to keep up with on social media or too many information to read/ photos to browse can

- keep a student stuck in the maze of social media, and thus, end up wasting lots of time that should have been spent doing their academic assignments (Moreau, 2018).
- ii. **Distraction and Procrastination.** Users/students can get distracted and start using the social media for other purposes and not pay attention to the educational content (Hopkins, 2017). How often do students look at their phones? Most of them devote more time to chatting on social media platforms than their academics, even while receiving lectures, they chat with their peers on social media. Obviously, this leads to low academic performance. In addition, browsing social media can also lead to procrastination habits and become something students turn to in order to avoid reading their books or doing assignments (Moreau, 2018).
 - iii. **Lack of control for inappropriate content.** Posting inappropriate content can also be a significant problem to both the students and the faculty. This can damage the reputation of the educational institution and likely one of the reasons that many educational institutions have not embraced social media as a learning platform (Hopkins, 2017).
 - iv. **Privacy issues.** With so much information sharing on social media, issues over privacy is a big concern. Privacy issues such as social media sites owning your content after posting, becoming a target after sharing your geographical location online, or even getting in trouble at school after sharing something that might be contrary to some peoples' believe. In short, sharing too much with the public can open up all sorts of problems that sometimes cannot be reversed (Moreau, 2018).
 - v. **Sedentary lifestyle habits and sleep disruption.** Social networking is done on some sort of computer or mobile device, as a result, it promote sitting down in one spot for a long period. Likewise, staring into the artificial light from a computer or mobile device at night can affect the human eye by the rays emitted via the device and can also interrupts the student's ability to get a sound night sleep (Moreau, 2018).
 - vi. **Relying on social networking sites for all communications.** Relying too much on social networking sites for all communication can stifle a user's/student's ability to interact with his/her colleague in person. This is a problem throughout society and not just limited to education. Many of today's youth have grown up with technology and many times it is easier for them just to communicate online and not in person (Hopkins, 2017). That is, online socialization is replacing the need for physical socialization.

Microscopic View of Some Social Media and Video Conferencing Platforms

The following are few of some popular social media platforms that promote learning and can be used in smart libraries for quality service delivery:

Wikipedia

Wikipedia the online encyclopaedia, is a product of Wikimedia Foundation, Inc., a non-profit organization. Wikipedia is a popular online encyclopaedia and social networking website that consists of a great repository of informative articles, generally used by millions of users all over the world. Wikipedia allow scholars, researchers and students etc, to share their views and opinions in a forum based settings. Also, it allow for user to ask questions, review, modify, mention references, give feedbacks and share their knowledge gained from each article. (K2B Solutions, 2013).

LinkedIn

LinkedIn is one of the largest websites created mainly for business relationships and networking. This website is used by nearly a million of companies and professionals across the globe. LinkedIn educates its users, and also provides advantageous benefits to employers and job seekers. Like Facebook, LinkedIn also has so many groups for educators where students, scholars, researchers and business people can connect to share ideas. (K2B Solutions, 2013).

Facebook

Facebook is a famous social networking site that has nearly a billion users all over the world. This website is considered to be the best website for promoting education. In this modern generation, you can find out that almost every student has an account with Facebook. The Facebook groups are formed for schools and classes and thus the website allows both the teachers and students to share their information, post queries and answers, set reminders about upcoming events, etc. The eminent Facebook groups that are available are Wikieducators, E-Learning in developing and developed countries, Teaching Critical Thinking and Active Learning. (K2B Solutions, 2013).

Twitter

Twitter is an American microblogging and social network service that has about three hundred and thirty million users worldwide, and an estimated thirty million active users in Nigeria. Twitter is regarded as the SMS of the internet, it is a social network service which allows users post and interact with each other through messages known as 'tweets'. Twitter has been a hotbed of debates and news covering all events globally, it could be education, politics, sports, news or any other live coverage of an event to engage in live updates and opinions of individuals.

WhatsApp

Whatsapp is a freeware, cross-platform messaging and Voice over Internet Protocol (VoIP) service. It allows users to send text messages and voice messages, make voice and video calls, share images, documents, user locations and other medias like PDF etc.

Skype

Skype is a telecommunications application that specializes in providing video chat and voice calls between computers, tablets, mobile devices and smart watches via the internet. Skype also provides instant messaging services, users may transmit text, video, audio, and images.

Conclusion

This paper explored how social media and video conference application in smart libraries can help the library in effective service delivery. Social media and video conference is well-recognized and well accepted forum for established libraries in advanced countries. The demand for information in this era of information explosion is on the rise and with the introduction of social media and video conference in libraries it is an ideal indication that if exploited properly and put into use will enable the library professionals to create multimedia profiles with the goal of encouraging interaction between librarians and library patrons.

Recommendations

1. Every library should be encouraged to have active social media accounts to help interact with its users easily and comfortable.

2. Every library should create a room/office specifically for Video Conferencing with its users.
3. Keeping in view the importance of social media and video conferencing for effective service delivery, internet service and steady power must be provided to utilize all the tools.
4. Libraries should provide their patrons with tools for accessing social media page on their library website.
5. Librarians should be educated and trained in using social media and video conferencing tools for service delivery in the libraries.
6. Library schools in their syllabus should help in popularizing the use of social media among LIS professionals.

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