



Title	From a traditional library to a new digital library: HKSKH Ming Hua Theological College Library case sharing
Author(s)	Cheung, SC
Citation	The 2015 Asian Conference on Arts & Humanities and 2015 Asian Conference on Literature and Librarianship (ACAH LibrAsia 2015), Osaka, Japan, 2-5 April 2015.
Issued Date	2015
URL	http://hdl.handle.net/10722/234233
Rights	This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License.

*From a Traditional Library to a New Digital Library: HKSKH Ming Hua
Theological College Library Case Sharing*

Sau Ching Helen Cheung, HKSKH Ming Hua Theological College Library, Hong
Kong

The Asian Conference on Literature & Librarianship 2015
Official Conference Proceedings

Abstract

The paper will use the HKSKH Ming Hua Theology College Library (香港聖公會明華神學院圖書館) in Hong Kong as a case study to discuss how a traditional smaller library can change to a new digital library to support learning, teaching and research activities of the college. This case shares how MH library has developed its digital library, based on the framework of usability attributes: learnability; efficiency; memorability; errors; satisfaction in development of a digital library with a one-stop searching library catalogue in PC and mobile versions; global classrooms; in-house digital resources as well as collaborative teaching to provide library workshops that develop the digital literacy skills of users.

Keywords: digital library, information technology, digital literacies

iafor

The International Academic Forum
www.iafor.org

Introduction

1.1 About HKSKH Ming Hua Theological College (<http://www.minghua.org.hk/>)
Sheng Kung Hui, being the Anglican Church in Hong Kong, has a long and rich experience in instituting schools and churches. Ming Hua Theological College was established in 1947 by the Hong Kong Sheng Kung Hui. The college offers services for postgraduates, undergraduates, a diploma of religious studies, and lay training courses. It aims to train and educate members of God's church and people who want to learn religious studies. These courses are flexible, with the use of multiple strategies in learning, including lectures, holding group discussions, and undertaking writing papers.

1.2 About the MH library (http://library.minghua.org.hk/en/About_Library)
The Library of the College came into official use when the newly renovated College was dedicated on 27th September 1997. Named after the chief benefactor Mrs Lai-Wong Yan-lin, the library houses a number of electronic resources and printed materials on the topics of Christianity, theology, philosophy, church history and the humanities. The Library occupies two levels in the building with a study area and five main collection areas: Circulation Collection, Audio-Visual Collection, Periodical Collection, Reference Collection and Special Collection.

1.3 The reasons for developing the MH digital library

As a smaller library, in the past, the library focused on printed materials, had a limited amount of electronic resources and an in-house, but not online library catalogue. However, to have a faster library system for library management such as cataloguing and acquisition work, to provide online library catalogues, library resources, as well as planning to use more e-learning for the College in the future, the Library kicked off the digital library project in 2012. There were three areas of concern in this digital library project; i) the usability of the digital library system such as its flexibility and user friendliness; ii) what kinds of projects/tools should be included in the digital library; iii) how to develop the digital literacy skills of users to help them use the digital library system.

To design the digital project, decide the products and electronic resources of the library, a senior management team consisting of principal, vice principal, librarian, academic program director and executive assistant was involved. Also, feedback was received from faculty meetings, wider college meetings with members of the college and the students' representative. Also, the framework of the project was referenced with a literature review.

2. Literature Review

2.1 Usability of the Digital Library

For the usability of the digital library, and regarding evaluating the usability of digital libraries, McCray and Gallagher (2001) state that one of the major rules of thumb for digital libraries is to design a usable system. To achieve this, the developer should consider factors such as accessibility, simplicity, user control, and clear navigation. There is no standard definition of usability, but one commonly used is the five usability attributes from Nielsen (1993, 2012):

i) Learnability: Users need to be able to easily learn how the system works so that they can speedily start to use the system to carry out their required tasks.

ii) Efficiency: Once a user has learned how to work the system, the system should be efficient, thereby providing the user with opportunity to be as highly productive as possible.

iii) Memorability: A casual user should be able to use the system when returning to it after a period of some time, without experiencing problems and without having to relearn the system in depth.

iv) Errors: The error rate of the system should be low and it should not be possible for there to be any major errors. If there are any errors then they must be easily recoverable.

v) Satisfaction: Users should feel that they like using the system and that it is pleasant and easy to use.

2.2 The features of MH digital library

In the early stages, the purpose of libraries in developing digital libraries (DLs) was rather simple – to provide library collections in an electronic format so users could access and search them using the global Internet. Another early discovered use for DLs was to allow librarians to use them to organize and manage collections and deliver them to users. (Drabenstott 1994; Lesk, 1997; Leiner, 1998). However, with the rapid development of the Internet, technology and commutation tools, DL functions have been enhanced. DLs are no longer just for organizing, managing, searching and accessing digital information, but now can also provide a platform for sharing ideas and knowledge, communication, interactivity, collaboration and e-learning. (Arms, 2000; Jeng, 2006; Witten, Bainbridge & Nichols, 2010).

To decide the features of the digital library, the librarian liaised with other senior management teams of the MH College as well as computer officers and vendors. Also, involved were faculty meetings with faculty and college meetings with the students' representative, to receive the needs of programs, faculty and students. As a result, the aim of Ming Hua digital library is to provide a one-stop searching platform for users to search for and access library resources, open access resources, as well as interactivity, collaboration and e-learning for Ming Hua College. The digital library project has developed into phases based on the academic development of the College and the needs of users etc.

2.3 Digital Literacy

The development of digital literacy skills of users Information and computer literacy emerged in the early 1980s; by the late 1990s, the concept of digital literacy had also come to the fore. There is no standard definition of digital literacy. Some authors (Anderson, 2007; Covello, 2010; Matusiak, 2010) regard digital literacy as an umbrella term, with sub disciplines in information and computer literacy and the emergence of technologies such as Web 2.0. The library of the University of Illinois at Urbana-Champaign regards it as the ability to use digital technology, networks, or communication tools to locate, use, evaluate, and create information; use and

understand information in multiple formats via computers and to perform tasks effectively and apply new knowledge in a digital environment (Illinois, 2008).

Common problems of literacy skills of College Students

Previous studies, show that in terms of their literacy in these areas, college students have room for improvement including their insufficient knowledge of how to 1) identify the information needed (Flores, 2010), 2) develop search strategies and retrieve information sources (Costantion, 2003; Walraven et al., 2009), 3) become more able in higher skills for using computer software (Bataineh & Baniabdelrahman, 2005), 4) evaluate information (DiBianco, 2004), and 5) use information ethically and legally (Wang, 2007).

To find out the literacy skills level of MH library users, the adapt information ability test and surveys from Chu (2004) and Cheung et al (2011) were used. MH students including bachelor degree and Master degree students, did a test and survey on a voluntary basis when they started their studies in MH. The results show that the areas for students to improve their literacy skills are similar with the other college students in previous studies.

3. The challenges of developing MH digital library projects

The digital library project included selecting and setting up a new library management system, online library catalogue, in-house development of a library mobile website, development of a Global Classroom and provision of library workshops to equip the digital literacy skills of library users.

3.1 Library management system and online library catalogue-discovery tools

Based on the usability attributes (learnability, efficiency, memorability, errors, satisfaction), needs of the college and users, and after comparing with several vendors, MH selected a new library system package. This includes a library management system and an online library catalogue system –a discovery tool.

3.1.1 Library management system (circulation, cataloguing & acquisition)

Changing from an old system to a new library system presents several challenges. The first thing is to convert data. In the Ming Hua case, the bibliographic records and patron records are mainly in Chinese and English languages. The new and old systems are made by different companies, and also the previous library system has been used for almost 10 years; it requires some time and steps to convert data from the old system to the new system. It is necessary to ensure that converted data is completed correctly. For example, the patron records have to be correctly matched with their loan items. Also, Chinese characters need to be available for searches and display in the library catalogue and library management system.

The new library management system includes circulation, acquisition and cataloguing. Therefore, each of the modules of the functions required to be carefully considered before setting up the system with vendors. It was also important to be able to check core functions of the modules with daily work after installation of the system. For example in circulation modules, checking whether functions such as reserving a book, issuing overdue notices, courtesy notices, check in/out dates, overdue fines

accounting as well as providing opening hours and holidays of the library. And for cataloguing modules, after creating a bibliographic record, whether the records can show and search online the library catalogue – the discovery tools.

3.1.2 Online library catalogue-discovery tool (<http://library.minghua.org.hk/>)

MH library online system is named Didache. The word "Didache" originally comes from Greek, meaning teaching or exhortation. This system was launched in 2013. It is a one-stop search interface for discovering and accessing the Library resources including bibliographic records of printed materials and library subscribed electronic resources as well as open access resources.

One of the issues the Library has been concerned about is Chinese searching. There are two issues that can affect the searching results. One is variant Chinese Characters in that the same meaning of a Chinese word can have two Unicodes, such as 黃 (U+9EC3) vs 黃 (U+9EC4). The other issue is Chinese traditional & Chinese simplified such as 聖經 vs 圣经 (bible). To ensure the users can get the correct searching results, the library has worked on this with the vendors and other libraries have found similar problems. As a result, a Chinese mapping table with Unicode has been imported to the library system in order to improve Chinese language searching.

3.2 Mobile library website (<http://library.minghua.org.hk/mobile>)

To help users easily use their hand-held devices such as smartphones to access MH library resources, and the use of the online library catalogue and library services, the library mobile website was launched on 3 June 2014. We compared budgets, manpower, the advantages and disadvantages of developing apps or using a mobile version. In our case, as we have very limited manpower regarding IT officers, we felt that if the library developed mobile apps, we needed to contract out for a vendor to build apps. Also, we would need to pay both IOS and Android fees. Therefore, at this stage, our in-house built mobile library website with html5, CSS and JavaScript was developed. This helped the library to save on the budget costs to create mobile apps by vendors and users no matter if they use IOS mobile phone or Android as well as providing flexibility in management.

3.3 Global Classroom (<http://gclass.minghua.org.hk/>)

The Global Classroom project was launched in March 2014. This is one of the major projects of the Ming Hua College. The project is to provide an online education platform for MH faculty and students to interact with each other; and to provide live lectures and online revision for all people around the world who want to learn theological education. The Global classroom system includes two modules: online open lectures and online classes. The open lectures are open to all people to attend live open lectures by Ming Hua College and the online classroom is mainly for MH faculty and students. For open lectures, users can attend the lecture in person at Ming College or they can choose to use desktops or their handheld devices to access the live lectures at the same time.

The challenges for us in developing a global classroom were not only in selecting a suitable online classroom system and comparing several existing products in the markets; we also had to plan a global classroom program. The bigger challenge has been how to do professional video shooting and select suitable equipment, to set up the environment for live global classrooms and make careful use of budgeting. To

solve these issues, we visited other organizations¹ with similar projects and a professional movie director provided workshops for our team, about how best to make professional shooting and film live lectures.

3.4 Equipping digital literacy skills of students

Library workshops have been offered regularly to library users such as students, faculty members and college staff, This is in order to develop digital literacy of users, including guiding them on how to do citation and referencing correctly, to use the library resources, to use the one-stop library catalogue, to use IT tools and how to search for information efficiently etc. The teaching materials are in pdf and video format. Library workshops concerning use of electronic databases and information searching skills are mainly conducted by the college librarian. For some workshops, collaborative teaching is used, examples as below.

3.4.1 Plagiarism

The citing style that the College recommends is the Chicago Manual of Style's footnote. There is collaborative teaching with the academic program director and the college librarian. The academic program director provides learning skills workshops as well as information about the requirements of citation and referencing and the Chicago Manual of Style's footnote for all new students in the Ming Hua College. The librarian conducts library workshops to teach users how to use the bibliographic management tools. By using the workshops and these tools, students should be able to easily manage and carry out their work, and most importantly, avoid plagiarism in their work.

3.4.2 Use of Databases, IT tools and information searching skills

The Library workshops concerning use of electronic databases and information searching skills are mainly conducted by the college librarian. Some IT workshops such as creating a website with tools, use of Mac, Microsoft software and Photoshop is collaborative teaching with the Librarian and the computer officer. The library assistants help in preparing the teaching materials in printed and video format.

4. Results

4.1 Enhancement of the digital literacy skills of users

Feedback was obtained from workshops and meetings with library users. This includes details of an increase in the motivation and confidence of library users when using library resources, especially the electronic resources. When the students can improve their searching skills, they can get the relevant information in a short time and get more relevant results. Students are also made more aware of plagiarism as well as being able to source properly and ethically when they do their assignments or papers.

The reference questions of students are also in different patterns. The new students especially year one students, usually want to learn about the online library catalogue – the discovery tools and the use of core library electronic resources databases. When in the second semester, more students will use bibliographic management tools to help with their citation and references for the term paper. And for students who study in

year two or above, especially final year students and faculty members, they usually seek advice on how to do advanced searches and get more resources with full-text articles.

4.2 Benefits of collaborative teaching

As a small size college with limited manpower, collaborative teaching helps to reduce the duplication of work between colleagues such as the academic program officer and the librarian both teaching about plagiarism. It can also help library assistants and the computer officer to develop teaching skills that in the long term are good for both colleagues and the college. For example, during the process of library assistants preparing teaching materials they will get more familiar with using the electronic resources. The computer officer can also be helped in learning more about the needs of users and the difficulties these users face when using the system.

4.3 Benefits of Library management system

The new library management system increased output of the daily library work in cataloguing, circulation and acquisition. Also, with the use of RFID, it can increase efficiency in circulation and stock checking.

5. Conclusion and further study

It takes time for each project of a digital library to develop, and to get users and colleagues familiar with using the digital library. For example, MH global classroom was just soft launched in March 2015. The team members are still making efforts to help users become familiar with using the system more extensively. A further study will be conducted to see how the project helps students, especially part-time students, in their learning as well as assisting teaching by the faculty members or visiting lecturers.

References

- Anderson, P. (2007, February). What is Web 2.0? Ideas, technologies and implications for Education. *JISC Technology and Standards Watch*, 1-64.
- Arms, W.Y. (2000). *Digital libraries*. Cambridge, MA: MIT Press.
- Bataineh, R. F., & Baniabdelrahman, A. A. (2005). Jordanian EFL students' perceptions of their computer literacy. *International Journal of Education and Development Using Information and Communication Technology*, 2(2), 35-50.
- Chu, K.W. (2004). Development of information search expertise of research students. Thesis (PhD.) University of Hong Kong, 2004., Hong Kong.
- Cheung, H., Chu, S.K.W., Fong, N., Wong, P.T.Y. & Fung, D. (2011). *Developing multiple literacies for BSc Information Management students*. Paper presented at CITE Research Symposium 2011, The University of Hong Kong, Hong Kong.
- Costantion, C. (2003). *Stakeholders' perceptions of the importance of information literacy competencies within undergraduate education* (Doctoral dissertation). Retrieved from ProQuest Dissertation and Theses database. (UMI No. 3086813)
- Covello, Stephen (2010, May 9). A Review of Digital Literacy Assessment Instruments [pdf]. Retrieved from <http://idmodule.com/research-on-digital-literacy-assessment-instruments-fulltext/>
- DiBianco, P. (2004). Teaching information literacy skills in the age of search, click, copy, and paste. *Information Searcher*, 14(4), 1-32.
- Drabenstott, K.M. (1994, February). Analytical review of the library of the future [pdf]. Council on Library Resources, Washington, D.C. Retrieved from http://deepblue.lib.umich.edu/bitstream/handle/2027.42/58006/Analytical_review_of_the_library_of_the_future.pdf?sequence=1
- Flores, N. D. (2010). *Online learning communities: Enhancing the acquisition of information skills by undergraduate students of the University of Puerto Rico at Carolina* (Doctoral dissertation). Retrieved from ProQuest Dissertation and Theses database. (UMI No. 3402939)
- Illinois (2008, October 15). Digital Literacy Definition and Resources [website]. Retrieved from <http://www.library.illinois.edu/diglit/definition.html>
- Jeng, J.H. (2006). *Usability of the digital library: An evaluation model*. (Doctoral dissertation). Retrieved from ProQuest Dissertation and Theses database. (AAT 3203382)
- Leiner, Barry M. (1998). The Scope of the Digital Library : Draft Prepared for the DLib Working Group on Digital Library Metrics January 16 [website]. Retrieved from <http://www.dlib.org/metrics/public/papers/dig-lib-scope.html>

Lesk, Michael. (1997). *Practical Digital Libraries : Books, Bytes and Bucks*. San Francisco, California : Morgan Kaufmann.

Matusiak, K. K. (2010). *Use of digital resources in an academic environment: A qualitative study of students' perceptions, experiences, and digital literacy skills*. (3437964 Ph.D.), The University of Wisconsin - Milwaukee, Ann Arbor. Retrieved from <http://search.proquest.com/docview/822654686?accountid=14548>

Mccray, A.T., & Gallagher, M.E. (2001). Principles For Digital Library Development. *Communications of the ACM*, 44(5), 48–54.

Nielsen, J. (1993). *Usability engineering*. UK: Academic Press.

Nielsen, J. (2012, January 4). Usability 101: Introduction to Usability [website]

Retrieved from <http://www.nngroup.com/articles/usability-101-introduction-to-usability/>

Walraven, A., Brand-Gruwel, S., & Boshuizen, H. P. A. (2009). How students evaluate information and sources when searching the World Wide Web for information. *Computers & Education*, 52(1), 234-246.

Wang, Y.M. (2007). Riding to the future- An investigation of information literacy skills of students at an Urban University as applied to the Web environment. *International Journal on E-Learning*, 6(4), 593-603.

Witten, I.H., Bainbridge, D. & Nichols, D.M. (2010). *How to Build a Digital Library* (2nd ed.). Burlington, MA: Morgan Kaufmann.