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Article

The Impact and Effect of Learning 2.0 Programs in Australian Public Libraries

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Abstract

Objective – With adoption of the program world-wide, the Learning 2.0 model has been lauded by library professionals as a mechanism to educate library staff and transform libraries. This study, part of the 2009 CAVAL Visiting Scholar project, seeks to measure the impact and legacy of the model within Australian public libraries to understand what benefits, changes and effects occur.

Methods – A national Web-based survey for those who had participated in a learning 2.0 program.

Results – The national survey had 384 respondents, and a total of 64 respondents were identified as the public library staff data set for this article. Public library staff reported success in the program and described feelings of increased confidence, inclusivity, and a move to use emerging technologies as part of library service.

Conclusion – The analysis yields the following thematic areas of impact and effect: personal practice is enhanced with knowledge and confidence; impact is mainly personal, but organisational changes may follow; the library is using the tools to varying degrees of success, and organizational blocks prevent use of tools. These

finding offer evidence that Learning 2.0 programs can have a positive effect on library staff and subsequently on the organization itself.

Introduction

August 2011 marks the five year anniversary of the debut of the Learning 2.0 program created by Helene Blowers of the Public Library of Charlotte Mecklenberg County (PLCMC). Blowers utilized the article "Things You (or I) Might Want to Do This Year" by Stephen Abram and "distilled it down to 23 things that she wanted her staff to understand through hands-on experience" (Hastings, 2007). The "things" included blogging, subscribing to rich site summary (RSS) feeds, and exploring sites such as YouTube and Flickr. Hanly (2007) reported the plan was to include all staff in learning: "Blowers challenged her 550 staffers to become more web savvy."

The program was based around a series of weekly online learning activities. Participants would spend a few minutes each day exploring an emerging web technology and compose a reflective blog post about what they learned. Some staff might work alone while others would work in groups or meet to discuss progress. Blowers encouraged group discovery within the program (2008). The original Learning 2.0 - with the initial "23 Things" is still available on the Web at http://plcmcl2-about.blogspot.com/. PLCMC and Blowers offered the program online for use by any interested library via a Creative Commons license. Because of this move to share the content freely, the model struck a chord with the library community.

Learning 2.0 Goes Global

Since 2006, libraries all over the world have offered variations of the "23 Things" program for their staff. Blowers (2009) estimated close to 1,000 libraries and organizations have used the program. As more emerging technologies appeared, the programs have evolved as new tools are introduced. Recent programs have included tools such as Twitter, Facebook and mobile library applications.

Blowers (2008) reported that libraries around the world were accessing the learning modules to educate staff about Web 2.0 tools and increase their interest and confidence levels. One of the first institutions to replicate Blowers' model was Yarra Plenty Library in Victoria, Australia, where library leaders used the program to educate staff about emerging social tools that would be included in that public library's strategic plan (Lewis, 2008). Yarra Plenty Library CEO Christine MacKenzie praised the program as a means of educating library staff, in a presentation at the *Public Libraries: Building Balance* conference in August 2007, noting that "it has received wide recognition" and favorable coverage in resources such as *Wired.com*.

Transformational Learning?

Some have called the program transformational (Abram, 2008); while others have noted its ability to bring staff together in a common goal: learning emerging technologies. Lewis (2008) reported "the Learning 2.0 program had a great impact on staff, who now know they are capable of learning new technologies." Gross and Leslie (2008) reported success with the program in an academic library setting but stated "to our knowledge, no formal evaluation of Learning 2.0 has been conducted. However, the take-up rate among libraries worldwide has been impressive and stands as an endorsement of the program" (p. 796). A later case study by Gross and Leslie (2010) detailed the program's implementation and offered insights to make it more effective.

There is a lack of actual evidence of the program's impact in the scholarly literature. Some questions emerge: What is the true impact of the program on the library and library staff? What does it mean to say that the program "has fundamentally changed the staff's way of thinking and working in the 21st century" (Titangos and Mason, 2009)? How

have the tools been adopted? Does the culture of learning continue? This study, launched as part of the CAVAL Visiting Scholar Project in 2009, utilizes web survey methodology to gauge the impact and efficacy of the program in Australia's public libraries.

Literature Review

To frame the impact of a learning program such as "23 Things" in a public library setting, a survey of applicable adult learning theory and other research concerning learning environments helps to set the stage.

Adult Learning

Knowles (1970) proposed concept of andragogy, focused on adult learning, includes these assumptions, as summarized by Merriam and Caffarella (1999):

> We grow to be more self-directed in thought and action throughout our lives.
> We gather ongoing experiences that influence and illuminate our learning.
> We are ready to learn tasks or concepts directly related to our roles and lives.
> We move from future-oriented learning to problem solving focused learning.
> We are motivated to learn by internal factors over external ones. (p. 272)

These concepts comprise a model of adult learning based on the characteristics of adult learners and their life experiences. Task-based and focused on learning at the point of need, Knowles' model can serve as a roadmap for designing learning experiences for adults. Learning 2.0 was designed as an exercise in self-direction for library staff that needed to learn about technologies that were impacting the way people consume and interact with information, as noted by Hanly (2007).

Lifelong Learning, Self-Directed Learning and "Learner Control"

Also foundational to the original Learning 2.0 program was an emphasis on lifelong learning. Hiemstra (1976) argued that three forces are at

work to propel ongoing interest and need for lifelong learning: constant change, occupational obsolescence and an individual's desire for self-actualization. Many Learning 2.0 programs began with an emphasis on "lifelong learning" to set the stage, the original program utilizing a resource called "7 1/2 Habits of Highly Successful Online Learners."

The original program was also based on the concept of self-directed learning. Candy (1991) offered various definitions of self-directed learning (SDL) as learner-created, learner-managed, and self-motivated. Candy also provided a summary of several decades of findings concerning SDL (1991) that include a social component or interaction with others:

- Interaction with other people usually motivates SDL.
- SDL is non-linear in nature and relies on serendipity.
- SDL is rarely a solitary activity; it often occurs within a social grouping. (p.199)

Acknowledging that SDL is truly not a solitary activity, Candy later argued (2004) that a more fitting description for SDL would be "learner control," in which the learner can "take control over a narrow range of choices" (p. 50). He also recognized the potential for guided online education to free the learner to explore beyond specified course material.

Hough (2006), a librarian and trainer, recognized the possibility for learner control or SDL in the "23 Things" program. According to Hough, the program emphasizes a shift from providing step-by-step directions to approaching professional development as an opportunity to increase independence, confidence, and awareness of the potential of emerging technologies. She encouraged library leaders to embrace this new paradigm for learning as they adopt a service ethic that stresses interaction with users. Another description of the program noted it is a process "that all librarians should follow, even though we doubtless will end up in different places" (Maxymuk, 2008, p. 66).

Transformative Learning

Within the literature on adult learning, Mezirow's Transformative Learning Theory (1991) offers a theoretical lens through which to better understand the impact of Learning 2.0. The process in which adults respond to events or new experiences and how it changes or enhances their frame of reference and subsequent approaches to other events/experience is the basis for this theory. Transformative learners re-align their viewpoints as more knowledge is obtained. The process is "more inclusive, discriminating, self-reflective, and integrative of experience" (Mezirow, 1997, p. 5). Cranton (2006) offered this further definition: "When people critically examine their habitual expectations, revise them, and act on the revised point of view, transformative learning occurs" (p.19)

Play and Exploration

Another important component of the Learning 2.0 professional development model is an emphasis on play (Blowers, 2008). Jenkins (2006) defined play as "the capacity to experiment with one's surroundings as a form of problem-solving," and asserted that play is one of the emerging social literacies or skills for education. The Learning 2.0 model combines play and opportunities to explore new spaces into a unique approach to self-directed professional development.

Aims

With adoption of the program world-wide, the Learning 2.0 model has been lauded by library professionals as a mechanism to educate library staff and transform libraries. Developed for adult learners, the program includes an emphasis on self-direction, group discovery, and exploration and was intended to inform participants about the potential of emerging technologies to enhance library service and inspire confidence. As noted above, the purpose of the research project was to investigate if the program has "fundamentally changed the staff's way of thinking and working in the 21st century" (Titangos & Mason, 2009). The following research

questions frame the research project to measure the impact and legacy of the model within Australian public libraries:

- To what extent have Learning 2.0 programs enhanced library staff's confidence and ability to explore and utilize emerging technologies?
- To what extent have Learning 2.0 programs had an impact on library services?
- What are staff perceptions of the efficacy of Learning 2.0 programs in libraries?
- What are exemplary practices for the program?

Methods

Web Survey

A Web-based survey tool, designed to address the research questions, contained two areas of focus, reflecting a research design that is both quantitative and qualitative. Question types included demographic queries, Likert scale and open-ended. The combination of quantitative and qualitative data, including five open-ended questions, provided an in-depth examination of Learning 2.0 participants' perceptions of the impact of the program. The survey questions are reproduced in Appendix A.

Sample

The target population for the large-scale national survey was determined to be those who are employed in the libraries and information professions in Australia and had participated in a Learning 2.0 program offered locally or at the state level. Because the program is intended to be inclusive for all types of library staff, library employees at all levels as well as students and consultants were invited to participate. The researchers understood the sample would be broad and varied, similar to the original focus of the inclusive Learning 2.0 program. The Institutional Review Board of the Dominican University, River Forest, Illinois verified the survey questions in the spring of 2009. The

web survey was announced on various Australian library-related mailing lists, library-related blogs, and other channels of communication and remained open for three weeks. A total of 384 valid responses were collected. Responses deemed incomplete were those in which no answers were given beyond the initial demographic questions. These responses were removed from the initial data set.

Results

Survey Data Analysis

Analyzing the national survey data included a combination of quantitative analysis for the demographic data and descriptive content analysis for the open-ended questions. Both researchers shared preliminary and final coding duties to ensure inter-coder agreement for the category responses. Code-books were created for each question type and shared between the researchers and utilized for both the academic library subset and the public library subset.

Public Library Staff Demographics

The national survey had 384 respondents, 86% female and 14% male. Those aged 45 to 54 were the highest number reporting, at 29%, followed by 28% in the 35 to 44 age range. The largest group was that of academic library staff at 18%; while 15% of respondents identified themselves as working in a public library setting.

A total of 64 respondents were identified as the public library data set for this article. Survey respondents who selected the following job categories were included: Reference Librarian (Public Library), Children and Youth Services Librarian and those respondents who chose to enter a response in the "Other" field that indicated they worked in a public library setting. These included "Local Studies Librarian (Public Library)," "Mobile Library Operator," "Local History Librarian," and "Library Technician, Public Library." These selections were verified by evaluating the open-ended responses for mention of the

public library setting. Any respondent that could not be verified as a public library employee was removed from the data set. Of this selected data set, 87% were female. The most frequent age category was 35 to 44 at 30% followed by 45 to 54 at 28%.

Completion of the Program

Completion rates of the program and the open-ended answers to the question "If you didn't complete the program, why not?" showed a high percentage of the public library data set did complete the program (94%), and only three individuals reported non-completion. Those three respondents answered the follow up open-ended question, including these coded responses "No time / too busy" and "Lack of interest / content not relevant." One respondent noted that the main barrier to completing the program was too little time and difficulty concentrating: "Same old problem the world over - so many pressures - doing the course in bites, phones ringing, workroom activities happening around you - it was snatch and grab learning. Many, like myself, did the course from home in our own time and were able to enjoy it that way."

Success of the Program

One section of the survey asked participants to rate a series of statements via a Likert scale exploring support by administrators, and administrator/management participation, as well as a rating of the success of the program. The majority of respondents agreed or strongly agreed with the statement "My library's manager/supervisor backed the program." Administrative and management participation in the programs drops however, with 61% of respondents to the statement "My library's manager/supervisor participated in the program", strongly agreeing (36%) or agreeing (25%) that their manager took part. This did not appear to drastically affect the perception that "The program was a success," with 64% strongly agreeing (39%) or agreeing (25%) with the statement.

Continuing to Explore

For the question "Are you continuing to explore emerging technologies online?" the majority of respondents reported in the affirmative (94%) with the remainder (3%) reporting they were not continuing exploration. Three of the public library subset of respondents did not answer the question.

Impact of the Program: Perception Statements

The final portion of the survey explored changes and impact of Learning 2.0 on the library and on the individual's professional practice via a series of open-ended questions. Utilizing descriptive content analysis, the creation of codebooks and inter-coder checks, the category responses offer insights into the impact of the program, as perceived by participants. The following are the primary perception statements that account for the majority of responses for the impact section:

- We're implementing or using the tools to varying degrees of success
- Library staff is more comfortable learning about new technologies
- There is better/increased awareness of 2.0 tools
- Library staff use the tools discovered to enhance work

The following sections detail the category responses from each section of the open-ended portion of the survey as well as a related Likert scale section exploring confidence and other topics.

Organizational Changes

For perceived organizational changes, 48 respondents in the public library data set answered the question, with the majority (44%) noting that their public library has adopted the tools with varying degrees of success. The results of content analysis on this section are represented in Table 1.

The majority of coded responses aligned with the "vary degree of success" category. One respondent noted: "The library has introduced an online social network for readers and the staff who have done the course are more likely than others to add blog posts, images, book reviews and comments to the site."

Another category response focused on staff perception and interest in 2.0 tools. "Our library staff are now more willing to embrace new technologies and ways of getting our message out there," noted one respondent. Another response - "Generally a greater knowledge of web 2.0 tools. We can assume knowledge in some areas as most of our staff have gone through the programme. Some staff also became more confident in exploring new technology (realising they weren't going to "break" anything by playing with it!)" - further illustrates this point.

For those who noted there had been no impact some identified blocks put in place by information technology departments or city government which were a hindrance. One respondent reported "blocked by archaic IT and communications section," while another

Table 1
Organizational Changes after the Program

"What organizational changes have you noticed as a result of the program?"		
	No.	%
We're implementing or using the tools to vary degrees of success	21	43.75%
No impact	10	20.8%
Better understanding/more openness to/increased perception of 2.0 tools	10	20.8%
Improved communication & sharing between staff	4	8.33%
Restrictions and blocks prevent us from using the tools effectively	3	6.25%

stated "we are trying to do more 2.0 - but often bureaucracy and IT issues are stopping us."

Comfort, Confidence, Committee Structures and Encouragement

The next section was a set of statements exploring comfort levels and abilities as well as changes at the organisational level rated by respondents via a Likert Response Scale. The public library staff subset results are represented in Table 2.

The selected responses for this section are positive when addressing any of the statements concerning personal proficiencies. The responses of "Agree" or "Strongly Agree" are the most frequent for statements such as

Table 2

Comfort, Confidence, Committee Structures and Encouragement after the Program for Public Library Data Set

	Strongly disagree	Disagree	Sometimes agree / sometimes disagree	Agree	Strongly agree	Response count	Skipped question	Total
	No. & (%)	No. & (%)	No. & (%)	No. & (%)	No. & (%)	No. & (%)	No.	No.
I'm comfortable learning about new technologies.	0 (0%)	0 (0%)	3 (5.26%)	18 (31.58%)	36 (63.16%)	57 (100%)	7	64
I'm confident I can learn new technologies.	0 (0%)	0 (0%)	2 (3.57%)	20 (35.71%)	34 (60.71%)	56 (100%)	8	64
I like to explore technology on my own:	0 (0%)	2 (3.57%)	10 (17.86%)	18 (32.14%)	26 (46.43%)	56 (100%)	8	64
I'm prepared to help our library users with emerging technologies.	0 (0%)	0 (0%)	4 (7.02%)	29 (50.88%)	24 (42.11%)	57 (100%)	7	64
The team/committee structures at my library have improved because of this training.	2 (3.57%)	12 (21.43%)	20 (35.71%)	15 (26.79%)	7 (12.50%)	56 (100%)	8	64
I'm encouraged to try new things at my job.	1 (1.79%)	3 (5.36%)	9 (16.07%)	24 (42.86%)	19 (33.93%)	56 (100%)	8	64

"I'm comfortable learning about new technologies" and "I'm prepared to help our library users with emerging technologies." For the statement "The team/committee structures at my library have improved because of this training" the frequency of response shifts to "Sometimes Agree"/"Sometimes Disagree" and "Disagree", but returns to a more positive frequency for the statement "I am encouraged to try new things at my job."

Lasting Impact of the Program

Responses to the open-ended question "What has been the lasting impact on your library after Learning 2.0," are reproduced in Table 3.

Selected responses for the category of "Better/Increased Awareness of 2.0 Tools/Inclusive feeling for staff" include: "the fact that it was a team effort and we all learnt together regardless of status, age etc. being exposed to new things was wonderful" and "Staff are aware that emerging technologies will influence patron requests for information delivery."

For the category response Confidence/Helping Library Users, the next most prominent response in the public library subset, respondents noted such statements as "Greater confidence in using web 2.0 technologies and talking to patrons about them (we work in a public library and get many older people wanting clarifications about Web 2.0)."

Those who reported no impact used such statements as "nothing discernible" and, perhaps reflecting the influences of governing departments, "not much- have only been allowed to implement a delicious account - everything else is blocked by IT or communications."

For "What changes have you made to your personal professional practice because of the program?" the most prominent coded response of the public library subset was "I use the tools I discovered to enhance my work." Selected responses include "Higher proportion of my role now utilising these technologies where possible rather than older options" and "I am attempting to keep an open mind about information delivery methods for the future. Thus, I am reading professional material/articles, but also playing with various Web 2.0 technologies to ensure my skills are relevant to any library/information service workplace." The full data analysis is reproduced in Table 4.

For the category response "I feel generally more in the know/comfortable/current "one respondent noted: "I feel empowered to keep up with change, and enthused about the possibilities," while another noted the program's self-directed nature - "I am willing to jump in and work things out - there was a bit of problem solving in the 23 things program - it wasn't all spoon fed."

Table 3
Lasting Impact of the Program

"What has been the lasting impact on your library after Learning 2.0"		
	No.	%
Better/Increased awareness of 2.0 Tools/ inclusive feeling for staff	21	36%
Confidence/Helping Library User	12	21%
Improvements to staff communication	8	14%
Increased use of tools in personal life	1	2%
Increased use of tools in Library	9	15.5%
Management/IT more open to tools	1	2%
No impact	6	10%

Table 4

Changes to Personal Professional Practice after the Program

"What changes have you made to your personal professional practice because of the program?"		
	No.	%
I use the tools I discovered to enhance my work	20	46.5
I share/collaborate more because of the tools	3	6.98%
I use RSS to read feeds/keep current	6	13.95%
I feel generally more in the know/comfortable/current	8	18.60%
I communicate with my coworkers and colleagues using the tools	6	13.95%

Discussion

This study identifies the perceptions of the impact of Learning 2.0 programs in Australian public libraries. The analysis of multiple choice and open-ended questions yields the following thematic areas of impact and effect as well as suggestions for exemplary practice for Learning 2.0:

- Personal practice is enhanced with knowledge and confidence, and exploration continues after the program.
- Impact is mainly personal, but organizational changes may follow.
- The library is using the tools to varying degrees of success.
- Organizational blocks prevent use of the tools.

The following sections examine each of these thematic areas more closely.

Personal Practice is Enhanced with Knowledge and Confidence, and Exploration Continues after the Program

A significant benefit or impact of the program is the increased knowledge and confidence for those who have participated. When asked to gauge impact on the organization, survey respondents noted organizational change is not as prevalent, but staff feel more

comfortable and "in the know." For libraries that have offered the program, the results of this study point to a library staff that is "more confident in exploring new technology" and "staff who were scared of technology feel more confident."

These findings support Mezirow's Transformative Learning Theory (1991). Cranton's previously cited definition of transformative learning highlights the gaps of library staff exploring tools such as blogging, Twitter and Facebook as a way to understand emerging technology and what role the library might play with users: "When people critically examine their habitual expectations, revise them, and act on the revised point of view, transformative learning occurs" (2006, p. 19).

The findings of this study also support Candy's (2004) designation that "learner control" allows the learner to "take control over a narrow range of choices" (p. 50) and that online education can free the learner to explore beyond specified course material.

Impact is Mainly Personal, but Organizational Changes may Follow

Many of the answers for the question concerning organizational change highlighted impact at the individual level but some also pointed to the potential changes that could occur as staff continue to utilize technologies covered in the program. These changes center

on improved library service and better interaction with library users. One respondent noted "Our library staff are now more willing to embrace new technologies and ways of 'getting our message out there'" while another responded: "staff are talking about how to incorporate these technologies into customer service offerings." One respondent noted the program lead to "awareness and ability to assist the customers."

Further evidence of institutional impact is found in responses such as this: "Quiet staff who were nonetheless willing to play within the Learning 2.0 program have now become key proponents in moving our library service and its web applications forward - they have found their voice and are respected for using it." Promotion of these services and approaches toward emerging technologies, despite the varying degrees of success, benefits the library as a whole. This response supports this thinking about the future: the program provided "an awareness that things are changing - and the need to learn and address the issues with this so we can stay relevant & receive the funding we need."

The Library is Using the Tools to Varying Degrees of Success

One respondent stated: "Not a lot has changed - I have more access to info & ideas that I wouldn't have had before but time and resources are very limited and it's a struggle to get a lot of our basic duties done." This response is indicative of the third thematic area of impact and effect. Some libraries are implementing emerging technologies, but the success of many initiatives remains unclear. Despite this, concrete results did arise from this program: for example, one respondent described the "appointment of a New Technologies Librarian."

Organizational Blocks Prevent Use of Tools

Culled from various sections of the survey, this thematic area highlights the fact that in some instances blocks and prohibitive policies inhibit use of the tools. This may be within the library or from external governing entities.

Some respondents expressed frustration at a lack of "progressive" and "archaic" approaches to emerging technologies by IT departments and local government.

Statements reported general blocks, "We are unable to do most things covered by web2," while others reported that managers did not approve of use of the tools: "Participants continue to lobby supervisors for wider use of Learning 2.0 technologies." Highlighting the personal impact of the program on individuals but a lack of impact organizationally, one respondent reported: "Many staff have moved along with technology though IT is the one that provides the most obstructions be it from a control / security / non progressive point of view." Outside of the library, one respondent noted that the "IT department at Council has not encouraged use of Web 2.0."

Exemplary Practice

One goal of this research, as supported by CAVAL in 2009, is the development of a list of exemplary practice for Learning 2.0. Analysis of the key questions from the survey leads to a preliminary list of exemplary practice to ensure success for libraries launching Learning 2.0 programs as an extension of professional development (PD) activities. The list, originally published by Stephens and Cheetham (2011), is further supported by the findings of this area of the project. It includes:

- Understand the program yields the personal benefits of confidence and a willingness to explore first, organizational benefits may follow.
- The program can promote the library and its services to other departments and increase credibility and visibility.
- Allow staff time to work on the program and make it a firm commitment.
- Break down any barriers on the tools put in place by IT departments making sure access is possible from employee computers.

Limitations and Future Research

Limitations of this study include questions not utilized in the analysis and lack of supporting focus group data. Two questions (Q10 and Q11) in the survey were removed from the data set because of an error with the survey software. Due to scheduling issues at the Queensland Public Library Association conference, only one focus group of public library staff was conducted with a low number of participants. Those results are not reported in this article. Other public library focus groups - conducted at City Libraries Townsville - could not be used because the program was ongoing during the time of the research visit.

These limitations, however, will influence future study of the Learning 2.0 phenomenon. More focus groups and surveys in other areas and within other types of libraries wield more data and support for the findings. Analysis of the generational questions from the survey is planned for future publication as well as an examination or respondents views of management support and communication during and after the program.

Future research of the Learning 2.0 program should further explore the impact of the program and should focus on institutional adoption of the tools, planning and evaluation. This would allow for an even clearer picture of impact on library services. Further research will include fine tuning the survey instruments and sampling other groups of library staff in areas where Learning 2.0 has been frequently adopted, such as the United States and the Netherlands.

Conclusion

The results of this study provide evidence that the adoption of Learning 2.0 as a professional development program for emerging technologies yields personal benefits for public library staff that include increased confidence, a willingness to explore and increased comfort with technology. Most participants in the survey reported success in the program, with only a small number of the public library data subset reporting inability to complete the program due to lack of time or support. Success from the program is described in various ways, including incorporating the tools in the library setting, feeling more comfortable and confident exploring new technologies, adopting the tools into personal practice and better awareness of emerging technologies overall. A useful benefit for those launching such professional development programs are suggestions for exemplary practice based on this evidence. These ideas and the results of this study offer support for professional development librarians and administrators to utilize this free, open program for staff training.

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