Use Web 2.0 to learn Web 2.0 - develop competences for the next generation library

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Introduction

Library 2.0 is a term used to describe a new set of concepts for developing and delivering library services. The name is a kind of extension of Web 2.0, they shares many of the same philosophies and concepts. Web 2.0 is a social concept, you communicate and interact, users creates content and share with other users. Content can be re-used and combined into new content; mashups. And things are never finished, there will always be a new and better solution! Many librarians assert that librariesalways have been 2.0: collaborative, customer friendly and welcoming.

Libraries of tomorrow – the next generation library - will look substantially different from libraries of today. It is essential to include the user in both design and implementation of services, and reworking library services to meet the users in their space, instead of the library space. The librarians who create these new libraries and fill them with new services, they also need new competencies and new skills.

We find several Web 2.0 learning programs in libraries. The most common is Learning 2.0, an online self-discovery program that encourages the exploration of Web 2.0 tools and new technologies, specifically 23 things (or small exercises) to explore and expand the knowledge of the Internet and Web 2.0. The Learning 2.0 program was designed by Helene Blowers, originally developed for the staff at the Public Library of Charlotte and Mecklenburg County in August 2006 (1). It was launched under Creative Commons Licence; there are versions of this learning program in several languages. In 2007 the 23 Things were translated into Norwegian, and more than 200 library workers from different libraries participated in the first round in 2008. The response to the program was very positive; 23 Things was stimulating and challenging, but also time-consuming.

In 2008 the NTNU Library[1] started a 3-year project called UBiT 2010 - pronounced "UBiT two-zero-ten". UBiT is the Norwegian acronym for NTNU Library, 2.010 relates to the project's objectives, which is to develop and implement new services and technologies in the NTNU Library. Developing staff's skills and competencies on new web tools and technologies is an important part of the project.

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[1] Norwegian University of Science and Technology is situated in Trondheim. It is the second larges university in Norway. NTNU Library has 10 branch libraries and 130 employes. The library has a strong focus on emerging tecnologies and developing new services for users.

Methods

KB 2.0[2] is a Web 2.0 training program, developed for the NTNU Library by the UbiT 2010-project . We could have used 23 Things; instead we choose to develope our own training program with focus on technologies instead of "things". KB 2.0 also has a focus on the learning process and methods. It is not a traditional course; the participants work in groups to explore technologies and tools and create their own knowledge on central Web 2.0 technologies.

The objective for KB 2.0 is to develop knowledge and skills on key topics and technologies related to Web 2.0. The participants should
- adopt new and emerging technologies and transforme them into something useful and relevant
- become familiar with Web 2.0 concepts
- recognize what is relevant and what is slightly less relevant
- see the end user's needs and find solutions
- develope technological curiosity
- collaborate and share
- keep up to date on new technologies

The KB 2.0 program was developed early in 2009, and the first round was carried out with 25 NTNU Library workers in a period of 10 weeks in spring 2009. The participants was choosen carefully from all branch libraries, we picked all types of staff - research librarians, librarians, head of sections and other staff. Each participant could use 4 hours a week on KB 2.0 activities in addition to the plenary meetings, the idea was to work with KB 2.0 during working hours.

The participants were divided into 5 groups; each group explored a 2.0-technology. Instead of focusing on individual tools, we selected topics/technologies that are basic in Web 2.0 (tagging, news feeds, user profiles, two-way communications, privacy / copyright). These topics gave participants the opportunity to explore many technologies and types of applications that already existed and that will evolve in the near future. It was vital that the topics could be related to library services and be relevant to the participants' reality.

We chose Problem-based learning (PBL) as framework for the learning process. PBL is a student-centered instructional strategy where students define their own exercises, collaboratively solve problems and reflect on their experiences. In PBL-groups, students are encouraged to take responsibility for their group and organize and direct the learning process with support from a tutor or instructor. In our training program the UBiT 2010-project group acted as facilitators and support for the PBL groups.

The KB 2.0 program consists of three types of activities; meetings for all participants, skills training classes and working in PBL-groups.

The timetable looked like this:

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[2] KB is a abbreviation of the Norwegian word "Kompetansebygging", which means to develope competencies and skills.

Week no	Activity
1	Meeting no 1: Introduction for all participants
2	Skills training no 1: Collaborative tools
3	Skills training no 2: Writing class
4	Survey no 1: "How is the KB 2.0 work going?"
5	Meeting no 2: Progress reports from the groups
6	
7	Meeting no 3: In Second Life, SL cource and progress reports from the groups
8	
9	Survey no 2: "How was the process?"
10	Meeting no 3: Results, evaluation

Table I: Timetable

Throughout the period the PBL groups worked with their exercises while UBiT 2010 project group gave advice, acted as supervisors, read blogs, commented, and were available for the PBL-groups on e.g. GoogleTalk, Twitter and Facebook.

Tools and exercises

Each group had three kind of exercises:
- Getting-started-exercises
- Exploring Web 2.0-tools
- Writing the wiki-article

At the first meeting we divided the participants into groups, presented the timetable, and gave the groups some "Getting-started-excercises". The purpose of these tasks was to make sure that everyone familiarize themselves with the most important tools to use:
- Google Docs - a free, cloud computing version of an office suite. The groups used Google Docs to write and collaborate on documents and texts
- WordPress - NTNU Library uses WP as its blog publishing application. Each group created a blog to share experiences with KB 2.0, discuss their exercises and so on.
- RSS feeds. The participants subscribe to feeds from the KB 2.0 blogs.
- Wiki. A wiki is a website where people collaborate and share information. NTNU Library uses Confluence as a wiki tool, and has set up a wiki for KB 2.0. The groups will publish the result of their main exercice in the wiki.

We also used (among others)
- SurveyMonkey[3] - to create and publish surveys on web, and view results graphically
- Second Life – to meet (and play…)

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[3] SurveyMonkey is an online survey tool that enables people of all experience levels to create their own surveys quickly and easily. More information at http://www.surveymonkey.com/

- GoogleTalk – to communicate
- YouTube – to learn from others
- Flickr – to share pictures

Exercise 1: Getting-started-exercises
1. Find the KB 2.0-wiki, and enter some text on the wiki-page for your group
2. Make a work plan for the group. Type it in Google Docs and share with everyone in the group
3. Create a blog for the group, use Wordpress. Give everyone in the group write access and write something
4. Subscribe to the RSS from the KB 2.0-blog
5. Are there words you don't understand? Use Wikipedia or YouTube or other sources and find out!

Exercise 2: During the entire period all the groups got some tasks to do to become familiar with the Web 2.0-tools
1. Become familiar with social technologies and tools that may be relevant to use. Create user accounts, use the tools and write down what you find out.
2. Use the blogs. Write about the learning process and your reflections (what you learn, problems you encounter ...). Subscribe to RSS from the other groups, comment on each other's blogs

Exercise 3: Writing wiki-articles
Each group writes a "Wikipedia-like" article on their technology, with text, links, references. They should give examples of use, and evaluate the usefulness and relevance for library use. The exercices are presented as ill-structured problems with some keywords and questions to get the groups started. Technologies to investigate:
- Tagging: How can tagging be used in the library context ? What about Social bookmarking and metadata?
- News feeds: Can news feeds give the user more benefit from library resources?
- User Profiles: How can user profiles cause better use of library resources?
- Two-way communication: What kind of library services can use two-way communication?
- Privacy / Copyright: What is copyright? What is intellectual property? What about Web 2.0 in this context? Mashups? Sharing? Personal Data?

Table II: Exercises

Figur 1: Example of problem presentation (tagging)

Results

The groups produced 5 wiki-articles on the themes:
- Tagging
- News feeds
- User Profiles
- 2-way communication
- Privacy / Copyright

The articles (in Norwegian) provided new knowledge for the benefit of the entire library, the articles also discused how the technologies can be used to develop new library services, and presented ideas to new projects for the library. One idea is to collaborate with the academics on tagging scientific resources. Students and researchers could share their tags with the library through social bookmarking sites such as Delicious; this could be a valuable supplement to the library's use of subject headings. The quality of the articles varied, and some of the groups said that they could have worked more with their article. As one of the participant said: "The process is the more important than the product".

Did we reach our goals?

In the last week of KB 2.0, we sent out a survey to the participants. Through KB 2.0, the participants should have adopted new technologies and transformed them into something useful and relevant. We were interested in which tools they actually had used, and what they thought about the usefulness of the tools. We listed several tools and applications (Blogg, RSS, Bloglines,

iGoogle, Facebook, Google Talk, Twitter, Google Docs, Flickr, Library Thing, Second Life) and asked which of these technologies/tools the participants

- had used
- wanted to know more about
- would continue to use
- recommended that NTNU Library adopted

The answers showed that Google Docs, Google Talk iGoogle and blogs were the most used tools/applications, and they will also continue to use these. They also recommend that NTNU Library should use tools like RSS and blogs.

We wanted the participants' individual evaluation of the program, and asked them to give their opinion on statements related to the objectives of KB 2.0, and to assess the relevance for the library. We also for the opinion on ways to work, to cooperate and the time spent on KB 2.0. 60% of the participants answered, and the answers showed that we mostly had achieved our goals.

Question 1: Decide on the following statements on the objectives for the KB 2.0 program

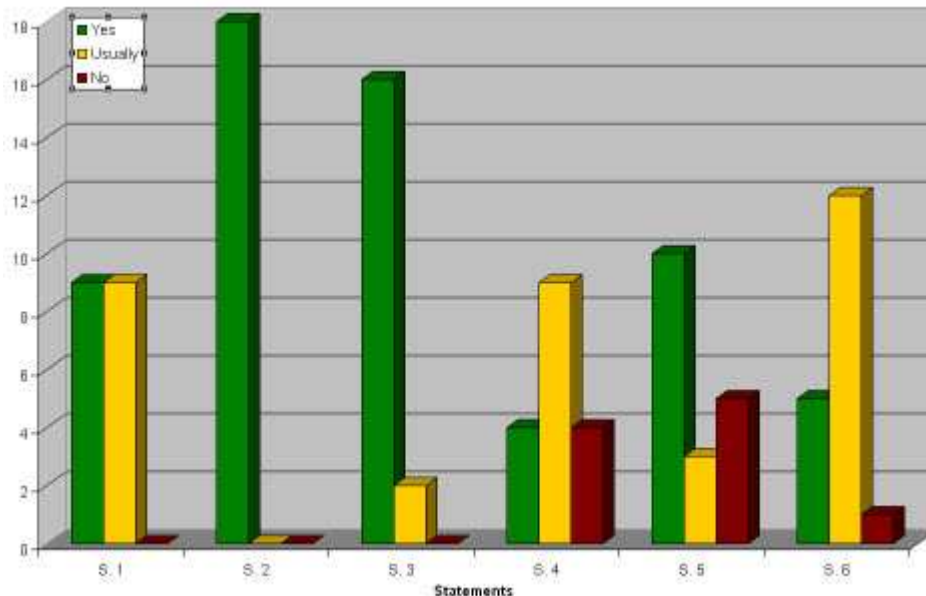Statement 1: KB 2.0 is important for NTNU Library
Statement 2: I will continue to be curious about new stuff
Statement 3: It's important for my work to have expertise in Web 2.0
Statement 4: I think its okay to start new activities without having approval from my leader
Statement 5: I am more interested in keeping informed now than I was before KB 2.0
Statement 6: KB 2.0 has helped me to decide what is relevant

Figur 2: Statements regarding objectives

The survey show that everyone believes that working with KB 2.0 is important for NTNU Library. All will continue to be curious about new things, and almost everybody think it is

important for their job that they have achieved new knowledge on Web 2.0. More than 50% are more interested in keeping informed now than before KB 2.0. They are a bit more sceptical to start new activities without approval from their leader. They are not sure if KB 2.0 has helped them to decide which technologies are relevant for end-users and libraries.
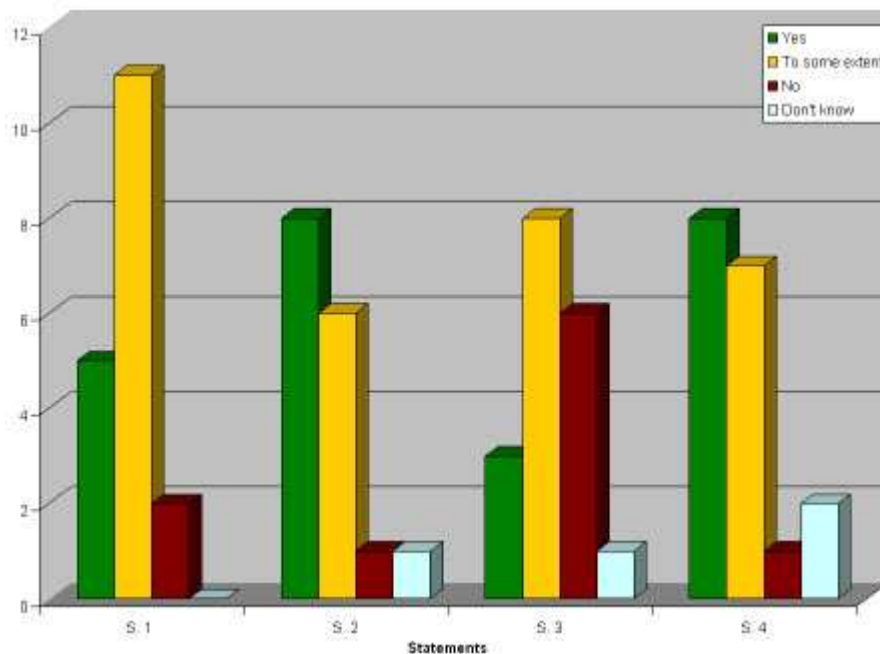
Question 2: Decide on the following statements on cooperation and sharing

Statement 1: I have found new ways to collaborate
Statement 2: I will continue to use these ways to collaborate
Statement 3: KB 2.0 made me change my attitudes towards cooperation with colleagues
Statement 4: This will make it easier for NTNU Library to work project-based

Figur 3: statements on cooperation and sharing

The answers to this question are quite clear: The participants have found new tools for collaboration, and they will continue to use these tools. They also belives that the new tools will make it easier for NTNU Library to change to project-based working methods.
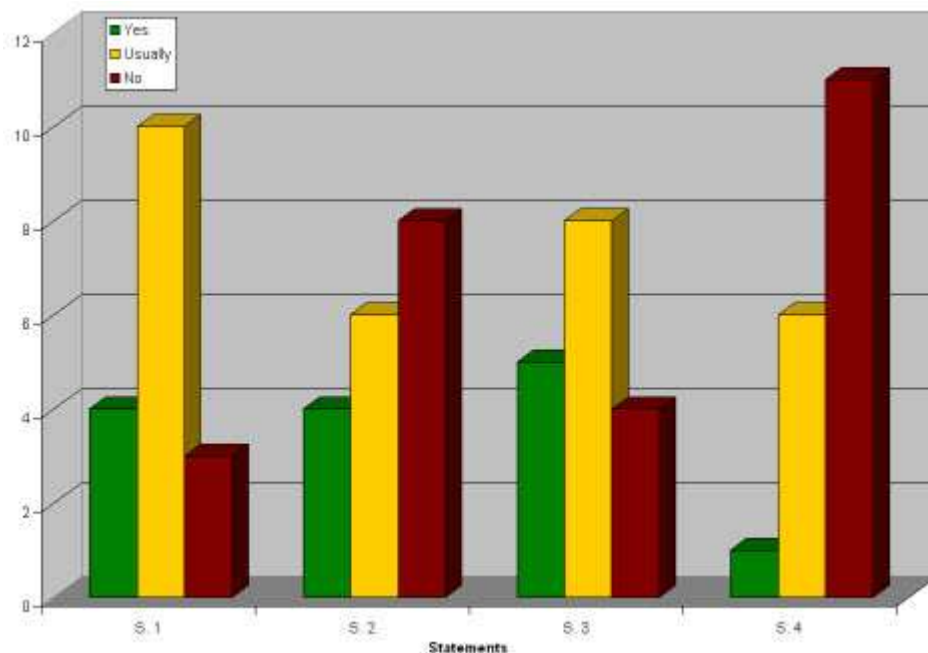
Question 3: Decide on the following statements on time to work with KB 2.0

Statement 1: I have been encouraged to work with KB 2.0
Statement 2: I could use the time that was reserved for KB 2.0
Statement 3: It was easy to find time to meet the others members of my group
Statement 4: It has been easy to find time to work with KB 2.0

Figur 4: statements on time to work with KB 2.0

These results were quite disappointing. Many of the participants had problems to find time to use on KB 2.0 activities, although they had reserved time to use on KB 2.0. They felt support and encouragement from their leaders to work with KB 2.0, but actuality it was hard to find time to work. Many of the participants also said that they should have had twice as much time to spend.

What happend next?

In April 2010 a new survey was set up, the objective was to check out the effect of Web 2.0 programs in two Norwegian university libraries; "23 Things" in Tromsø and KB 2.0 in Trondheim. The survey was carried out in co-operation with Mariann Løkse from the University Library of Tromsø; the results were presented at emtacl10 in Trondheim, Norway[4] (2). The survey focused on the learning outcome, the attitudes to Web 2.0 and to the use of new technologies in the libraries.
Findings:
- 58 respondents (>50%)
- Around 50 % had not followed a Web 2.0 program
- Around 25 % never used Web 2.0 at work
- No major differences in the responses from Tromsø and Trondheim
- Significant differences between those who have followed a Web 2.0 program and those who haven't.

The most important effect of the Web 2.0 programs is that the participants have developed new ways to work and cooperate. The second most important effect is the feeling of being updated on new technologies and social applications.

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[4] emtacl10 – emerging technologies in academic libraries, 26. – 28. April 2010, Trondheim, Norway. http://www.ntnu.no/ub/emtacl/

Very few of the respondents refused to use social technologies. Most of them see this as important and necessary, and appreciate the benefits and opportunities of Web 2.0. It is important that libraries are familiar with social technoloiges since it's an integral part of the lives of so many of the younger users. Web 2.0 presents new opportunities for libraries to reach out to users in various ways.

Finally we asked what must be done to increase the use of Web 2.0 applications in the libraries. The single most important factor is encouragement, especially from leaders - but also clear signals to prioritize these activities. It is also important to have acceptance from colleges when they "plays" with Web 2.0-applications during working hours.

Conclusion

KB 2.0 is important for the NTNU Library.

The participants in the KB 2.0 program at the NTNU Library have become familiar with Web 2.0 and have developed technological curiosity. They have linked 2.0- technologies to end-user needs, and identified useful tools to develop into new services. The Library Director at NTNU Library had these comments to KB 2.0: The library has achieved much from small investments, half a man-labour year out of 130 used on the project. The commitment has been a great, and new competences are spread throughout the NTNU Library. This leads to flexibility and new ways of working, and this is vital to the library.

But we also see challenges. Many library workers still regard Web 2.0 activities as little relevant for their job. We must have more focus on attitudes towards new technology. We saw significant differences between those who have followed a Web 2.0 program and those who haven't; training programs are a good investment. The web surveys gave clear signals to management to provide time and encouragement.

We must focus on attitudes towards learning; everyone has to take responsibility for their own learning. It is not easy to build new knowledge. The experience of learning, through trial and error, has an intrinsic value. Through KB 2.0, the participants have learned in the same way as our students. They have worked together in teams and under pressure. They have been "researchers" and have created their own knowledge on a topic they basically did not know anything about. They have experienced how to learn – and that is an important competace in the mext generation library.

Reference list:

1. Learning 2.0 [Homepage on the Internet]. Charlotte & Mecklenburg County: Public Library of Charlotte & Mecklenburg County [cited 25 May, 2010]. Avalible from: http://plcmclearning.blogspot.com/

2. Buset KJ, Løkse M. (2010, april). What happens next? Life after 2.0-training in academic libraries. Paper presented at emtacl10 – Emerging Technologies in Academic Libraries, Trondheim, Norway.