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A Web 2.0 vision, Web 2.0 project management and real-world student learning in a website redevelopment project.

Kelly McKeon
Manager, National Art School Library
Web Manager, Arts Libraries Society of Australia and New Zealand

Ellen Thompson
Creative Industries Librarian, Queensland University of Technology
President, Arts Libraries Society of Australia and New Zealand.

Abstract

The Arts Libraries Society of Australia and New Zealand (Arlis/ANZ) recently implemented a new web presence. More than just a web site, it was envisaged as a web 'identity', a virtual clubhouse where the Society could conduct its 'virtual business' and where members could 'meet' and contribute to the activities of their Society, free from physical and technical barriers.

This paper concentrates on the process of the project: the real-world learning collaboration with three student design teams; the Web 2.0 technologies and approach which enabled us to manage the project effectively; and how the project modeled the vision for the Web 2.0 look, feel and attitude of the final site.

The site is newly implemented, and is still in its infancy. Evaluation of the success of the Web 2.0 approach will be the focus of the next stages of the project. So while this paper does not provide an evaluation of the project, we reflect upon the next phase of actively engaging members, and measuring the success of the site against our vision of an "Arlis/ANZ 2.0".

Who we are: The Arts Libraries Society of Australia and New Zealand (Arlis/ANZ)

The Arts Libraries Society of Australia and New Zealand (Arlis/ANZ) is an organization for information professionals working with an arts specialisation. We've been around since 1975, promoting arts librarianship and working with other national and international organizations in the field. We currently have around 150 members; some are institutional members while the majority are individuals. They include architecture, design, film, fine arts and performing arts librarians; visual resources professionals; artists, curators, educators, publishers, booksellers - essentially anyone with a professional interest in arts information management. We have a history of collaboration and knowledge-sharing within our community, and have represented the Arts Information Sector in State and National fora.

The Society represents both Australia and New Zealand, and our members are widely distributed - from Auckland to Perth, Darwin to Hobart. Some State Chapters are made up of only one or two people. Many members have never met colleagues outside their own States and this physical disconnection takes its toll on the society's ability to manage itself effectively, and provide a meaningful service to its members. It affects our ability to realise those goals of collaboration and knowledge sharing that we claim as our strength.

While we consider ourselves a 'dynamic' organisation, much of that dynamism happens in isolation within the Chapter groups, or at events which facilitate face-to-face contact such as the biennial conference. Online, we have been anything but dynamic. And this does not help us engage existing members in Society business, nor make the society attractive to the next generation of potential members. We predict that our members of the future will want a stronger sense of activity and community from Arlis/ANZ if it is to be worth their time to engage with the Society. Web 2.0 technologies will help us respond to that desire (Beatty 2007, p. 2).

Arlis/ANZ 1.0

The first generation Arlis/ANZ website was very *Web 1.0*. Developed and launched in 2004, before the critical mass of Web 2.0, the original Arlis/ANZ website did not provide the level of collaborative functionality now common in an everyday internet experience. The site focused on providing information, and recording and publicising some of the Society's activities. Amid the recent fast pace of change in online tools, the site that had been an achievement worth celebrating in 2004 no longer effectively represented the activity that was going on, and gave the impression of a still and inactive Society.

Arlis/ANZ did not own a domain name nor manage its own site hosting. A series of hosting arrangements managed by the parent institutions of members provided free and secure web space, but like the site itself, these hosting arrangements were also very static and did not allow for redevelopment or re-visioning. While the site's focus was merely to serve static information, the limitations of the hosting arrangements were manageable. However, the Arlis/ANZ Web Team felt that these arrangements were limiting the Society's ability to respond to change in the online environment.

For instance, site maintenance was a lengthy and clumsy process, complicated by inflexible web-authoring mechanisms: the Arlis/ANZ Web Manager was in Sydney and had to email content changes through to the Web Editor who was in Brisbane, where there were only two computers configured to edit the Arlis/ANZ site. Management of the site was therefore technically restricted to simple content changes. This had been the history of the site since its inception, despite hosting changes. Updates in previous years had been sporadic and much content was out of date.

On another level, the 'locked-down' state of the site only served to isolate members from opportunities to communicate, collaborate and participate, virtually, in their Society's activities. The general feeling was that the site was quickly ageing and losing relevance to the society's activities and that of its members. In a perfect Web 2.0 world, the Arlis/ANZ Website ought to have been enabling interaction between members, but as it was, this was technically impossible.

Because the Arlis/ANZ website couldn't provide the functionality, individual Arlis/ANZ members had begun to look elsewhere, so that much of the interesting activity was happening away from the Society's official web presence. Some members were experimenting with free tools such as wikis, collaborative documents, blogs and image sharing sites. Wikis were being used to collaborate on conference planning, to organise chapter meetings and quickly publish meeting minutes and to advertise events to the membership. Arlis/ANZ Executive members used Google Docs to collaboratively prepare formal documents such as policies and external correspondence and the Society's President began blogging to keep in touch with members, communicate Society activities and to promote the Society online in a more dynamic manner. Sometimes these *extra-curricular* activities were linked from the official site, but mostly not. This organic change in member behaviour provoked a rethink of the purpose and possibilities for the Society's website.

While using free, open source Web 2.0 tools was convenient and easy, the Arlis/ANZ Web Team felt that the official website should remain central to the Society's online activity.

In order to move our Society into what we now termed "Arlis/ANZ 2.0" (McKeon, Rossitto and

Thompson 2007) we needed a site that: enabled member participation; enhanced communication; supported flexible and collaborative web authoring; stood as a repository of Society knowledge and collective memory; offered a consistent look and logic; eliminated multiple logins; did away with third-party advertising; reinvigorated our virtual presence and freed us from the need to comply with the IT governance mechanisms of our host institutions. The diffusion of our activity into other virtual spaces was fracturing our vision for a stronger sense of online community. We were convinced that we needed Web 2.0, but in our space, not scattered all over cyberspace.

This was the flashpoint, and the Society ratified a project to redevelop the website with a Web 2.0 vision.

Authentic Learning

The three member Arlis/ANZ web team began the task of redeveloping the website in early 2007. We did not have the professional web design skills or the level of access to the hosting server to effect major, strategic change. While we could update website content, we knew we could not transform it. We needed professional, knowledgeable help if we were to achieve the 'utopia' (Lankes 2007, para 1) that was our vision of "Arlis/ANZ 2.0". After exploring several options, including professional design companies, freelance web designers and recent web design graduates, we decided to enter into an authentic learning arrangement with the Creative Industries Faculty at QUT.

Working with students at QUT was appealing for several reasons:

- The students would work on our brief for no cost;
- They would be professionally supervised by experienced lecturing staff;
- They were in close proximity to two of the Arlis/ANZ Web Team Members;
- The Arlis/ANZ website was at that time hosted by QUT.

The Communication Design Discipline of the Faculty was actively seeking authentic projects for students to work on in a number of units. We were happy with the opportunity to be part a real-world learning experience, and felt that we had little to lose and everything to gain from the relationship. As we saw it, there was really only one risk: that the students may not come up with anything we could implement. If this were the case, the only real loss to Arlis/ANZ would be time. We felt that the advantages well outweighed the risks. The Arlis/ANZ Website Redevelopment Project became an authentic learning opportunity, and we became real-world clients with the possibility of a new student-created website on the horizon.

Three separate student teams selected the Arlis/ANZ project to work on. Feedback from students and the lecturers indicated that our project was attractive because it was complex and large scale and challenging - requiring an integrated solution. Not only had the students to solve a variety of technical and design problems to meet our brief, but the project management, communication and teamwork aspects of the process stretched their skills, and ours.

Throughout the project, both the Arlis/ANZ Web Team and the student teams involved used web-based tools to manage collaboration and communication, submit designs, give and gather feedback and test and deliver prototype sites. Central to the success of the project was using Web 2.0 tools and approaches in the management and documentation of the process. We lived our philosophy, using a Web 2.0 approach to design and implement a Web 2.0 solution.

Web 2.0 as Process

The management of the project was complex, and there were some specific hurdles to overcome. For example:

- Workload: the Arlis/ANZ Web Team, as volunteers, were absorbing the workload on top of their existing work commitments;
- Geographic location: one member was based in Sydney, two in Brisbane;
- Timelines: the project was driven by the 'external' deadlines set by the unit assessment requirements;
- Communication: there was an added requirement to communicate with and engage key stakeholders from the society's membership at regular intervals;
- Documentation and reporting: there were formal decision making procedures and financial decision making that needed to be managed at the National level.

The three student teams also had specific needs, such as:

- They required significant access to us - their client - both physically and virtually;
- They needed to clarify their interpretation of our needs, submit prototype designs, get our feedback and engage us in usability testing;
- They needed feedback and direction from us according to deadlines set by the unit requirements, thus we were complicit in their ability to meet assessment criteria.

It quickly became clear that for the project to remain manageable for all concerned, we needed efficient and simple mechanisms to manage communication and documentation. These mechanisms also needed to enable the Arlis/ANZ Web Manager to direct the project strategically from a distance. In the Web 2.0 world, where activity is no longer tied to the desktop, this was all possible.

Several significant tasks throughout the process were completed using a Web 2.0 approach.

Collaborative content creation.

New authoring applications that run in a web browser, rather than on local software, streamlined our ability to collaborate on creating and managing project documentation. We used wikis and Google's collaborative web-based word processing application 'Google Docs' to manage version control and enable each stakeholder to easily view or contribute to the current documents at any time. We used Google Docs to collaboratively write the vision for the new site, which was then released to the unit coordinator and made available to all of the students via QUT's learning management system, Blackboard. In response to this document, the student teams compiled and submitted a series of detailed questions, which we loaded into Google Docs, answered collaboratively and released back to them.

Collaborative documentation.

The three student teams worked simultaneously. Each team had similar, but not identical, requirements of us, as their "clients"; they asked similar, but not identical, questions, for which we had to keep track of our answers; they submitted unique design options, to which we responded with feedback and changes unique to each team; and they required follow-up actions from us which varied depending on the progress of their site prototypes. To manage this documentation we used a wiki. The wiki enabled the two Brisbane-based Arlis/ANZ members to organise the paraphernalia of each student team's submissions, including site-structure maps, user guides, graphics, logos and prototype sites, which was then easily accessible by the Sydney-based Web Manager. We could all 'see' the same thing, in real time, reducing the risk of information 'lost' in translation.

At various points in the project, the National Secretary, the National Treasurer, and the Arlis/ANZ Journal Editor were invited to participate. Their input to the design brief and their feedback on design proposals were crucial. Through the wiki, they were able to access the student team submissions as the project evolved and the designs matured, contributing feedback and details of functionality relevant to their roles in the Society. In this way the 'virtual' project management team could expand

and contract as needed.

The student teams themselves used similar tools to manage their own internal process, often extending access to these tools and spaces to us, the client, as needed, for example: prototypes were loaded to third-party hosting servers, with access enabled for the Arlis/ANZ Web Team for testing purposes. Client and providers mirrored each other in their use of collaborative technologies, closing the loop of this particular example of Web 2.0-based project management.

Collaborative communication.

Alongside the management of the project itself was a real need to involve the wider Arlis/ANZ membership in the process. The success of the "Arlis/ANZ 2.0" vision is ultimately dependent upon membership engagement and participation; we could build it, but we needed our membership to come if the website was indeed to play a central and dynamic role in the Society's business. So, communication with the entire membership was critical, and a combination of blogging and an email list provided the means of dissemination. At certain milestones in the project, links to design options were posted to the President's Blog, hosted on a free blog tool. The blog link was also posted to the email list. Members from as far a field as Canberra, Perth and Darwin were able to comment back to the blog, providing feedback on specific design options.

Open source solutions and web-based access to content.

All three student teams ultimately chose Drupal as the Content Management System (CMS). Drupal is open-source, customisable, scalable and user-driven. A Drupal website allows site administrators to edit content and manage functionality and user access independently of specialised web-authoring software, from any web browser, from any locality.

All three teams built working prototypes of their website solutions, complete with a unique graphic skin, which the Arlis/ANZ Web Team tested for usability, look and feel, intuitiveness and for 'fit' against our original vision.

One student team, after building their prototype, then used it to communicate with us, leaving instructions on the site which directed us to the specific functionality they wished us to test. They released increasing levels of access to us, controlling the testing phase and easing us into the experience of user-driven content creation possible with Drupal. We posted feedback and comments to the site itself - the action of experiencing the site and its functionality simultaneously becoming the action of project management and communication.

In this way the proposed web solution was also the communication channel between client and provider, embodying the vision for a Web 2.0 Arlis/ANZ site very effectively. It became a dynamic, interactive and collaborative space where the client's activity on the site was integral to its evolution. This was a rich experience of what a Web 2.0 approach could do for us: client and provider and solution were complicit in a truly collaborative design process, enabled by the very functionality we would go on to implement.

This student team was exceptional, and it was their solution which we chose to implement. Throughout our website development process, we were modeling the type of collaboration, knowledge creation and functionality which we envisioned the redevelopment project would deliver for the new Arlis/ANZ website.

An open systems result

At the close of the project, the three student teams presented their solutions in a formal seminar, attended by their peers and the Brisbane-based Arlis/ANZ Web Team members. Arlis/ANZ were

presented with three submissions (one from each student team) from which to choose. We were impressed with how the students interpreted who we were as a Society, and how we wanted to present ourselves to the world through our website.

Two of the prototype sites presented were extremely well structured. One in particular had successfully integrated all of the functionality we were seeking. It met our vision for a transformed Arlis/ANZ website which could then be the catalyst for a transformed Society.

The collaborative web authoring functionality of the new Drupal-based Arlis/ANZ website would make it easier for the Web Team to work together on the management and maintenance of the site, regardless of physical location and differing levels of technical expertise. Importantly, it would also make it easier for the voluntary web editing positions to rotate through changes of incumbents and for those volunteers to work on the site from anywhere they chose. It also meant that Arlis/ANZ members could be granted varying levels of access to the site which would enable them to add content also, and contribute to the Society's online presence.

The site was implemented in late January 2008. It is now able to blend the traditional role of serving static information, while also incorporating collaborative and social networking functionality. In practical terms, this means that Arlis/ANZ will no longer need to hang freeware off the main site in order to take advantage of current Web 2.0 technologies. Collaborative, social, communicative, participatory technologies have been integrated into the site itself. The functionality of the site supports discussion fora, collaborative wiki-like document creation tools, additional member interaction through profiles and login access, financial management tools, support for video and image uploading, blogging tools, multiple levels of user-defined access, and the ability to add and modify content independent of the site hosting arrangements, web authoring software and specialist knowledge of code or programming languages.

What Now?

At time of writing, the website is five months old. It is a vast improvement over the previous site, but there is still much work to be done before we can determine whether the vision has become a successful reality.

Two issues are most pressing: engaging members in using the site; and evaluating the success of the site against our original vision.

Engaging the Membership

We are still in the post-implementation phase. The 'virtual clubhouse' has been built, but we are still furnishing it, and the bulk of our 150 plus membership is yet to register for the site, build their profile and use the functionality available. So, growth in participation and interaction with the site is our most pressing goal. We are yet to fully test the notion that *if you build it, they will come*.

We are mindful of Lankes' warning that functionality does not equal use. Interaction with the Society must contribute meaningfully to our members' professional lives for them to be willing to invest in participating (2007, para 5). This questions the Society's activities in a holistic way, not just those that centre on the web presence. However, putting this thought aside for the moment, if the new site is to fulfill its potential (and our original vision) we need to attract a critical mass of participating members. The value of a (Web 2.0) network grows in proportion to the number of its members who are online and adding value (Gammel 2006, p. 30). So, we need to get more members online.

During the next twelve months we will work on personalising the member experience, opening up opportunities for members to contribute to the processes of the Society, and support and build our growing online user community by aligning virtual interactions with existing face-to-face activities. For

instance, it is important that we greet new online members of the site, and encourage them to build their profile. While the site is still new, these personalised interactions invite members to contribute to developing the site with us and stand in for the self-generating activity which will happen more naturally when our virtual members reach critical mass. Through creating and viewing profiles, members get the opportunity to showcase themselves to each other (Steggles 2007, p. 10) and get a stronger sense that they have joined a community (Bowman 2007, p. 9). While our site is not Facebook, it does provide most "Directory 2.0" features that enable members find each other (Steggles 2007, p. 10).

Evaluating Success Against the Vision

At the same time as we work on growing participation we must measure: that our version of the Web 2.0 approach is the right fit; which elements are working best; and how our members are interacting with the site and with each other. However, to continue to develop a site which enhances the professional lives of our members (Lankes 2007, para 5) we absolutely need to be able to measure it, and in straightforward, gritty and meaningful ways. We can't just rely on page-hits. We have moved from a static, one-way style of website into the Web 2.0 world of user-generated content and participatory conversations.

While we can harvest some simple figures, such as percentage of members with profiles on the site, we need to use a variety of techniques to truly determine if the website has been a success. While Gammel (2007, p. 18) notes that there is ambiguity around social media measurement, there are some simple ways Arlis/ANZ could get started. And it may be as straightforward as starting with clear performance indicators related to the new functionality of the site. For instance, we could expect that:

- New members will join online;
- Existing members will renew online;
- A majority of members will have profiles on the site;
- Attendees will register for events online;
- Members will start or contribute to discussions online (in proportion to previous trends in email list usage);
- Society business processes will be conducted and documented online.

The process of gathering the qualitative and quantitative data surrounding these activities will be complex, and will take some time, especially for a Society run on volunteerism. How well and how quickly we grow participation on the site is a metric in itself, but much of the other data we are looking at gathering will only be meaningful once we have critical mass. Feedback directly from our members and site users will be key, as will an analysis of which parts of the site are being used or edited, by whom, and how often.

Conclusion

The Arlis/ANZ website redevelopment project was motivated by a need to reinvigorate the Society's online presence and to harness the power of Web 2.0 tools to break down geographic and technical barriers to member-to-member communication and collaboration.

The Arlis/ANZ Web Team entered into an authentic learning relationship with Creative Industries Faculty students, who developed solutions based on Web 2.0 principles and technologies. Management of the project featured the use of a variety of Web 2.0 technologies which streamlined communication, collaboration and documentation, and embodied the vision for the site itself.

The web design chosen for implementation was based on open source software, and incorporated functionality which will enable Arlis/ANZ to enact, in its virtual space, those ideologies of collaboration, interaction and knowledge-sharing which it claims as its strength.

The project was a strong learning experience for both the members of the Arlis/ANZ Web Team and the students who worked on the website design as part of their formal education.

Arlis/ANZ has now entered the next phase of its virtual presence. During this phase we will focus on engaging the society's members with the site and encouraging them to interact via its interfaces. We will also grapple with the issue of tracking members' interaction, gathering feedback and data which will enable us to effectively evaluate the success of the implementation against the original vision that is "Arlis/ANZ 2.0".

References

- Abram, S. 2007. The new normal: Association 1.5. *Information Outlook*, March 2007. Retrieved April 28, 2008 from: http://www.sirsidynix.com/Resources/Pdfs/Company/Abram/IOColumn_57.pdf.
- Beatty, M. 2007. President's column. *Information Technology and Libraries*, 26 (3): 2. Retrieved May 25, 2008 from: <http://gateway.library.qut.edu.au/login?url=http://proquest.umi.com.ezp02.library.qut.edu.au/pqdweb?did=1473875001&sid=-1&Fmt=7&clientId=14394&RQT=309&VName=PQD>.
- Bowman, J. 2008. Communities of practice: Web 2.0 principles for service in art libraries. *Art Documentation*, 27 (1): 4-12.
- Gammel, C. D. 2006. Association 2.0. *Associations Now*, 2 (1): 29. Retrieved May 25, 2008 from <http://gateway.library.qut.edu.au/login?url=http://proquest.umi.com/pqdweb?did=974273501&Fmt=7&clientId=14394&RQT=309&VName=PQD>.
- Gammel, C. D. 2007. Measuring social media. *Associations Now*, 3 (Nov Suppl):17. Retrieved May 25, 2008 from <http://gateway.library.qut.edu.au/login?url=http://proquest.umi.com/pqdweb?did=1381869131&Fmt=7&clientId=14394&RQT=&VName=PQD>.
- Habib, M. C. 2006. *Academic library 2.0: Development and application of a library 2.0 methodology*. North Carolina, Chapel Hill. Retrieved April 28, 2008 from <http://etd.ils.unc.edu/dspace/handle/1901/356>.
- Lankes, R. D. 2007. Library association 2.0. *Searcher*, 15 (8): 50-53. Retrieved May 20, 2008 from <http://gateway.library.qut.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=afh&AN=26660899&site=ehost-live>.
- McKeon, K., Rossitto, L. and Thompson, E. 2007. Arlis/ANZ 2.0. *Arlis/ANZ Journal: journal of the Arts Libraries Society Australia and New Zealand*, (63): 35-41. Retrieved May 28, 2008 from <http://eprints.qut.edu.au/archive/00008523/>.
- Steggles, A. 2007. A world of choices. *Associations Now*, 3 (Nov Suppl): 8. Retrieved May 25, 2008 from <http://gateway.library.qut.edu.au/login?url=http://proquest.umi.com/pqdweb?did=1381869111&Fmt=7&clientId=14394&RQT=309&VName=PQD>.
- Web 2.0. (2008). In *Encyclopædia Britannica*. Retrieved June 27, 2008 from Encyclopædia Britannica Online: <http://search.eb.com/eb/article-9438358>.

Additional

Current Arlis/ANZ website: www.arlis.org.au

Previous Arlis/ANZ website, archived on Pandora: <http://pandora.nla.gov.au/pan/50138/20070831-0921/www.arlis.org.au/index.html>