

Virtual Museum of Canada Lab Projects: Lessons Learned

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The presentation focused on lessons learned from developing projects for the [Experimental Lab](#) of the [Virtual Museum of Canada](#). Two of these projects tested the use of social media software and involved museum and gallery partners and students, in one case, secondary school, and in the other, graduate school. A third project, referred to less frequently in the presentation, tested panoramic technology.

The Virtual Museum of Canada's Experimental Lab

The Experimental Lab of the Virtual Museum of Canada (see VMC Lab) tests digital technologies for their relevance to museums and galleries, and their potential for increasing the visibility of these institutions and attracting audiences. The pilot projects have been undertaken in collaboration with museum and gallery partners, and the reports—with lessons learned, tips, and strategies—are added to CHIN's [Professional Exchange](#)

Among our general aims, we test technologies to try to ascertain whether they are feasible for museums to use and if audiences find them easy to use. The goal is to enhance audience awareness and provide ways for audiences to connect with museums and their collections.

Examples of projects

	Focus/Aim	Content	Audience	Tools tested
	Youth engagement	<ul style="list-style-type: none"> - Selected works from partner institutions - Student-produced research papers and creative responses to the works 	Youth	WordPress Facebook
	Public engagement	<ul style="list-style-type: none"> - Selected works from partner institutions - Research papers by graduate art history students - User-contributed treasures 	Targeted: 18-34 Actual: Baby Boomers	WordPress YouTube Flickr Facebook
	Public access	Works from the Retrospective of Joe Fafard, at the NGC, the McMichael, and the MacKenzie	All	Panoramic technology

[Young Curators of the Future](#) was a partnership with six museums and galleries and their local high schools. Art class students communicated with each other on Facebook, visited the museum, selected an artwork to study, prepared research papers or creative responses (painting, drawing, video) or both, and posted their work to the WordPress project site. The aim was to increase students' awareness of museums and of the possibilities of museum careers. Social media technologies were valuable tools that assisted the participation of institutions across the country, offered communication tools to link the youth participants, and enhanced members' understanding of the potential of social media.

For [Canada's Got Treasures!](#), CHIN partnered with the National Gallery of Canada, Canadian Museum of Nature, Canada Science and Technology Museum, Canada Aviation and Space Museum, Canada Agriculture Museum, Canadian Museum of Civilization, Canadian War Museum, Library and Archives Canada, and the National Capital Commission. Each institution selected five or six treasures from their collection and a film company created short videos (1-1 ½ minutes). In another partnership, a graduate art history seminar at Concordia University, Montreal, wrote short descriptions of each treasure as well as lengthier papers, and in some cases, the film scripts. The site was developed using WordPress, the videos were posted to YouTube, and the images were added to Flickr. The [public was invited to contribute](#) what they considered to be treasures via YouTube and Flickr. The aim was to test social media as a means to foster audience participation and enhance awareness of museums.

[Joe Fafard: A Retrospective at the National Gallery of Canada](#), in partnership with the MacKenzie Art Gallery and the McMichael Canadian Art Collection, tested panoramic technology for extending the life of an in-house exhibition so that a museum's investment in developing an exhibition would be enhanced.

The lessons learned are culled from these three projects.

Lessons Learned

Planning

Depending on the scope of the project and if one is working in partnership with other institutions, a project coordinator is highly recommended to ensure all content is received and that the project plan is followed.

Early project planning should include brainstorming ideas, determining objectives and expected outcomes, identifying the target audience, deciding on roles and responsibilities, planning a budget, and determining risks and mitigation strategies. We recommend in-person meetings, if possible, especially at the beginning of the project. One key decision is to determine who has authority for final approvals of the design, content, and information architecture. In identifying risks, we had foreseen the possibility of delays in technical quality assurance testing for accessibility. The need to retrofit open

source software to meet government guidelines on accessibility led to lengthy delays in the launch of Young Curators of the Future.

In planning the content, consider setting a limit on the number of words. Best practices in writing for the web encourage texts of 100-200 words per page. In Canada's Got Treasures!, site visitors had a choice of content: label information with each treasure, a 200-word description, video with transcript, and essays written by graduate students under the supervision of museum staff.

Audio and videos can add punch. In Canada's Got Treasures!, CHIN engaged a film company to make the videos, with all audio in both official languages. Current technology has simplified the mechanics of creating a video, but time and experience are required for editing. Thus, plan whether a video can be done in-house or if it would be better to hire a contractor.

Creating metadata will ensure that your project is retrieved by search engines. A useful resource is [Search Engine Marketing](#), an online course, is a useful resource. This course is found in the Professional Exchange and can be followed at your own pace.

Use Alt tags for images and captions or transcripts (or both) for audio/video to make your web pages accessible to site visitors who have special needs. Alt tags are text boxes that appear when a mouse or a screen reader passes over an image.

We undertook projects that involved many areas of a museum or gallery, including curatorial, collections management, education, marketing and communications, IT/multimedia/Web team, administration, legal or copyright, conservation, and volunteers. Tasks touched many areas of the museum or gallery, such as:

- selecting works (curatorial)
- meeting with students (curatorial, administration, education)
- behind-the-scenes visits (collections management, education, conservation)
- making the works available for students and filmmakers (collections management, conservation, security)
- image capture for panoramic image capture and for videos outside opening hours (security, curatorial, education)
- reviewing/revising all texts, rough cuts, and web pages (curatorial, education, Web team, communications)
- providing permissions (collections management or legal advisors: ensure permissions are in order or use copyright-cleared material)
- promoting the project (marketing/communications)
- meeting with the teachers to discuss the project, meeting with the students (education, curatorial)
- giving a talk about museum work (education, curatorial)
- help with using social media (education, marketing/communications)
- installing in-house exhibitions of student work (collections management, education, curatorial).

Depending on your situation, some of this can be handled by volunteers.

If doing image capture in a gallery (e.g. panoramic, videos, or photos in situ), plan to prepare a detailed shooting schedule and share it with all staff that will be affected. To avoid visitors' going to the wrong entrance, provide clear directions on where and when to enter the building, and also ensure the visitors have the telephone or cellphone number of the staff person responsible. Security clearances should be in place for the photographers and videographers. Prior to the visit, ensure that there is access to exhibit space and to objects. In Canada's Got Treasures!, one object selected was in a closed case and was inaccessible as a result of labour issues. For the Joe Fafard project, the institution and developer reviewed the image capture sequence to ensure that there was sufficient room to manoeuvre. Finally, if image capture is to be undertaken outside opening hours, there might be a need for extra security.

Time Commitment

The time commitment depends on the type of project, the software selected, the goals, whether the project will be done in-house or with a developer, and the amount and type of content. Allowing sufficient time for preliminary discussions and project planning helps define the project focus, target audience, and roles and responsibilities, and will determine the target date. Project partners in the Young Curators of the Future project were coast to coast, and were unable to hold meetings in person. Instead, we held regular conference calls. Initially, meetings were held every two weeks and we limited the calls to one hour to avoid conference call fatigue. For Canada's Got Treasures!, given that most partners were in the National Capital Region, meetings were held regularly and in person. Those who could not attend in person, for example, the partners in Montreal, were connected by phone.

Once the project plan is in place, the development of content and the site should include time to create the design (including information architecture and wireframes) and review and revise. Despite the best plans, there can be delays (e.g., technical glitches, copyright issues, staff changes), and this should be taken into account when discussing risks and mitigation strategies.

Much time and many resources can be saved by conducting usability testing at all stages. For example, in the early stages of the site development, one can create simple diagrams or sketches on paper and invite a few (3-5) representatives of your target audience to perform simple tasks, such as asking what they would expect to find if they selected one of the functions you are proposing, or asking them what actions they would perform to find specific content you plan to have on the site. In this way, one can learn a great deal about what works and what doesn't before investing time and resources in developing the project site. Testing at later stages will allow greater refinement of the functioning of the site, and a final technical quality assurance testing will identify any technical issues, such as broken links, before launch.

If you plan to have a bilingual project or site, allow time for translation. It is good practice to send texts for translation only after they have been finalized and approved in

one language. Going back to make edits increases the cost of translation. Also, proof-reading always seems to take longer than expected!

Third party or Open Source Software

As with any software, there are pros and cons to the use of third party or open source software and social media. (For more information about open source, please see [An Introduction to Free and Open Source Software for Museums](#).) Such software offers many possibilities to museums and can be simple or complicated, depending on the functions you plan to include.

There can be the temptation to use open source technologies because they are low-cost. Before embarking on a social media initiative, consider your aims and align the project with the institution's mission or mandate, and consider the need to maintain and nurture the content and platform. The "social" in social media means that you are, in effect, agreeing to be in regular (i.e. daily, weekly) communication with your audiences. CHIN staff monitored all feedback, responded to input, and initiated discussions for Canada's Got Treasures!.,. For Young Curators of the Future, we created a Facebook group to initiate and promote conversations. We posted open-ended questions weekly, such as "who is your favourite artist" and "what is your favourite art form." Given that these were pilot projects, the group was closed upon completion of the project, and the WordPress site was closed to comments once the project was launched.

Before selecting the software, it is useful to review, compare, and analyze the options available. For Young Curators of the Future, we discussed several options, including Ning, WordPress, Drupal and Voicethreads. We chose WordPress for the project based on some of the following criteria:

- a bilingual platform is available;
- it has the ability to post text, including keywords;
- it has the ability to create student accounts with avatars and profile pictures;
- functionality can be added via free widgets and plug-ins (that is, functions) (e.g., post slider, wordcloud based on keywords, star ratings for posts, and a sitemap plug-in);
- it is an open source and free solution;
- the website structure is easily organized;
- the website is brandable, meaning that a corporate logo can be added;
- it is relatively user friendly.

Open source software does present challenges, and some of the key ones are:

- need for technical expertise or coding skills if you plan to add functions to the basic templates since full documentation is not always available;
- software upgrades or changes can occur at any time, meaning, for example, that plug-ins that you are using or had planned to use, can be discontinued. For example, Flickr accounts needed at least five images in them, or they were marked as spam accounts; and YouTube eliminated Groups, which had been part of our marketing strategy.

- there can be security flaws, especially in older versions of plug-ins;
- some components of plug-ins do not comply with World-Wide Web Consortium (W3C) standards for accessibility for individuals with visual or hearing impairments;
- technical issues can arise if the project is developed on a different server and in a different software environment from the institution's. By installing the platform on the server used for the project, testing the software before beginning the project and again, before launching, will be more efficient.

Details of the pros and cons will be included in the project report, which will be available on CHIN's Professional Exchange site.

If your institution does not have someone with technological expertise and you wish to develop a site using open source software and adding numerous plug-ins, then it would be worthwhile to consider hiring a developer. The developer, who should have good experience with the platform you choose, can install, develop, customize, and provide guidelines on the use of the site and social media, including software updates (e.g. new features or removal of existing ones). We also suggest that a contract include a maintenance period after the site is launched to deal with any bugs or software changes. Once the site is launched, the institution would be prepared to add, update, and monitor content.

If you are part of government environment (e.g., municipal, provincial), there may be restrictions on use of open-source software. Therefore, it is very worthwhile to check before you begin planning a project.

About High Schools

In the Young Curators of the Future project, we worked with six museums and galleries and their area schools (the students received a class credit). We learned that it is important to work with schools that have the same academic schedule. The schools in the project had different schedules and the result was that, for example, one school was ready to load content early in their autumn semester, before the WordPress platform had been created. Another school began its term in January and thus, the students were not part of the early exchanges on Facebook that had begun in the autumn.

Feedback from teachers noted the importance of aligning a project with the curriculum. Whereas we had suggested a theme of "The Living City"—the theme of the Canadian pavilion at the International Shanghai Exposition, with which we had hoped to link the project—, teachers found it too broad.

Working with students from across the country, we wanted to promote interaction and, therefore, created a Facebook group. Each week, a new question was posted to initiate the discussion. The students communicated with each other and responded positively to the initiative. However, with the different academic schedules, the francophone students joined the project later than some of the other schools and the

interaction was less than hoped for. In addition, some of the students lived in rural areas where high-speed Internet access was not available, thus reducing their means to be online.

The students had fewer privacy concerns about social media than we did. When we proposed a Facebook group, we had planned not to include names and personal photos. Our concerns focused on the possibility of placing the students at risk, and as a government agency, we have strict privacy laws. However, one class stated in no uncertain terms that that was not the way they used Facebook, and they would not participate with such restrictions. After discussion by all partners, we agreed to allow the students to post photos and personal information, at least within the Facebook group. There have been no negative consequences.

From the outset and in keeping with the project's aims, we planned to include behind-the-scenes visits for students. Some students visited the museums or galleries after school, while others went during the school day. The number of visits varied with each school, with some students visiting only a few times while others went weekly during the semester. This element of the project was very successful, with students commenting that they developed a stronger interest in museums and in the possibility of a career in the field.

We learned that the guidelines for students on how to upload content to the WordPress site had to be very clear and we tested the procedures more than once with students. As a result, we revised the step-by-step instructions, taking into consideration that not all students had the same experience with the Internet (e.g. the rural students who did not have high speed Internet).

About Graduate Students

Students welcomed the opportunity to learn firsthand the demands and high standards set by the project partners. By having to adapt content to the project requirements, they demonstrated their flexibility, especially when they were assigned works, objects, or specimens and had to find a way to make the objects' stories come alive online. They were motivated, enthusiastic, and capable, and produced enriched content for Canada's Got Treasures!. With more than twenty students involved, the project coordinator was instrumental in managing their work and acting as liaison with CHIN.

About Audiences

Social media applications are not always user-friendly, which at times posed challenges to site visitors submitting photos or videos or both. Thus, as with the students' experience in Young Curators of the Future, it was important to provide clear guidelines on how to participate.

While it is important to plan for a target audience, be prepared for different, perhaps even unexpected, results. For example, in Canada's Got Treasures!, against predictions, Baby Boomers were by far the most active demographic viewing the content on the site. The stats are based on YouTube registered accounts.

By offering an incentive through a marketing campaign, such as a contest or prizes, a project could garner interest and encourage user-generated videos and other content. Otherwise, we learned that site visitors are unlikely to take the time to create a video to upload.

Benefits

For students

Behind-the-scenes visits were very well-received and provided both high school and graduate students with the experience of seeing, contemplating, and researching a unique object "up close." The benefits included a heightened awareness of and interest in museums, and opened the door to a potential career. Other benefits for all students included a Web publication/credit for their curriculum vitae.

The high school students also met with museum professionals, who gave short talks about their work. Two partner institutions held in-house exhibitions of students' artwork, which was a great way to recognize the students' work and make them feel valued.

The graduate students in art history working on Canada's Got Treasures!, under the guidance of both their professor and museum staff, learned to write for the public and for the web. In contrast to the high school students who were able to select the works that interested them (from a broader selection prepared by the institutions to address copyright issues), the graduate students were assigned their works. This proved to be a valuable learning experience, in particular for art history students working on natural history specimens or on science and technology collections, as it gave them experience outside of their area of specialization.

For museums and gallery partners

The students' work provided the project partners with new, enriched content about works in their collections. The students' perspective and their experience with social media contributed to the partners' understanding of this target audience. By meeting with the students, the museum professionals increased their awareness about the strengths of the students. The projects contributed to the succession planning and knowledge transfer of the partners.

The panoramic version of the Joe Fafard Retrospective extended the life of this in-house exhibition, making it available globally. The institutions increased the return on their investment while providing Canadian citizens who did not have the opportunity to visit one of the three venues the opportunity to navigate through the gallery space and view the works.

Working in partnership, the collective effort meant reduced costs in developing a project website and greater visibility through each partner's promotional activities.

Model

As a model for collaborative projects with students, schools, and partner institutions, such projects can increase awareness and enhance interest in museums and in a museum career. By welcoming students, museums and galleries can demonstrate their interest in this audience and have the opportunity to inspire students to think about a career in the museum field, thus contributing to succession planning. Involving young people contributes very positively to knowledge transfer and students noted their increased interest in museums.

Conclusions

The projects show the potential of the social media technologies for museums and for potential partnerships with educational institutions. The projects demonstrated that audiences can participate, but require clear guidelines and incentives. To achieve success, be prepared to plan carefully for time, budget, and resources.

The full project reports, with detailed information about time, money, and resources will be available in CHIN's Professional Exchange in 2011.

Links

[An Introduction to Free and Open Source Software for Museums](#)

[Canada's Got Treasures!](#)

[Joe Fafard at the National Gallery of Canada](#)

[Joe Fafard at the National Gallery of Canada: Virtual Museum of Canada Experimental - Lab Project Report](#)

[Professional Exchange](#)

[Search Engine Marketing](#)

[Virtual Museum of Canada](#)

[Virtual Museum of Canada Experimental Lab \(VMC Lab\)](#)

[Young Curators of the Future](#)