

NAEA 2014 Annual Conference

Beam me up, Scotty! “Teleporting” Museums into Classrooms through Video and Web Conferencing

Museum	Tech Set-up	Description of Model	Pros	Cons
Amon Carter Museum of American Art	H323 Cisco wireless, interactive videoconferencing codec on a portable cart with 2 monitors and a power source.	<ul style="list-style-type: none"> • Live, two-way audio and video interaction – students are seen and heard • The video feed to a class can be toggled between live gallery views of museum educator interfacing with art, PowerPoint view of pre-selected works not currently exhibited, document camera for small details or studio work, or recorded video • Programs may be scheduled point-to-point (one class) or multiple-class. • Point-to-point programs may be scheduled at a classroom's preferred date and time 	<ul style="list-style-type: none"> • Students experience an actual gallery space with original works • Schools are now able to interface with H323 technology using a desk-top computer and free software – much less expensive • Having live, interactive audio and video provides for a more authentic museum experience • The ability to hear and see the classroom helps with monitoring student understanding • As is with on-site visits, this technology allows for flexibility and adjustments to suit student interest and ability • Technology may be used for stand-alone remote instruction or pre-visit preparation for an on-site tour • Students may be taken behind the scenes in the museum, i.e. conservation lab, or design studio, or installation site. • Remote visits of this type encourage on-site visitation • Multiple-visit remote programs may be more feasible than multiple on-site school tours. 	<ul style="list-style-type: none"> • Equipment, infrastructure, and technical support are expensive for the museum, and can be for schools • Technology doesn't always cooperate. Poor connection or equipment on the school end may result in poor quality program • While equipment and performance continue to improve and become less costly, this model for remote instruction may no longer be considered cutting edge
Museum	Tech Set-up	Description of Model	Pros	Cons
Art Gallery of Ontario & Royal Ontario Museum (partnership)	Adobe Connects	<ul style="list-style-type: none"> • Live video of museum educator in the gallery and PowerPoint presentation of pre-selected images • Two-way communication via chat 	<ul style="list-style-type: none"> • Students experienced an actual gallery space with “real” artworks on a day the gallery is closed to the public (Monday) • Chat box provided a real-time 	<ul style="list-style-type: none"> • The need for a PowerPoint presentation dictated the line of questioning and flow of the discussion; museum educator felt scripted

		<p>box (no live video of classrooms)</p> <ul style="list-style-type: none"> • Interactive tools included polls and whiteboards • More than one class could participate (6-10 classes) • Multi-camera set up for dynamic presentation and in-gallery close-ups • An online teacher PD session and supporting PDF document outlined museum engagement strategies, pre/post learning activities, list of artworks, online best practices, and tech support 	<p>record of questions and answers that could be referenced throughout the visit</p> <ul style="list-style-type: none"> • Students could also benefit from the polling and chat box answers provided by other schools • Able to provide a behind-the-scenes experience with the participation of a conservator handling art objects • High production value of video and interactive tools • Can be recorded and posted online for future viewing 	<ul style="list-style-type: none"> • No face-to-face interaction meant the discussion was less intuitive as an on-site experience • Experienced difficulties with whiteboard function, which did not work during live taping • Labour intensive model – 1-2 presenters, 1 director, 2 camera people per visit
Museum	Tech Set-up	Description of Model	Pros	Cons
National Portrait Gallery, Smithsonian Institution	LearningTimes set up the conference; Adobe Connect was the platform	<ul style="list-style-type: none"> • Session led by content expert prior to museum educator led session. • Audio of museum educator along with PowerPoint presentation of pre-selected images • Two-way communication via chat box • Interactive tools included polls and chat box • There was no limit to the number of participants. 	<ul style="list-style-type: none"> • Wide reaching. The online conferences were global. • Unlimited number of participants. • The chat box is anonymous (i.e. not face to face), which allows for more honesty and openness in responses. • Having a dedicated LearningTimes facilitator allowed educators to focus on the content, rather than the logistics of the conference. • Utilizing PowerPoint allowed for facilitator to stay on topic. (in the galleries, participants get distracted). • Finite amount of time for session. 	<ul style="list-style-type: none"> • Because there was no face to face interaction, there was a lack of connection between facilitator and participants • Greater wait time for responses is needed during an online conference. • In the gallery, the focus can be on just one or two portraits in an hour. In an online conference, the conversation seems superficial, so the inquiry moves much faster. • Both teachers and students participated in the online conference, which was challenging given the different approaches to each group. Chat box responses pop in one window to be approved by LearningTimes facilitator before being moved to public window. Caused delay in conversation.

Lessons Learned & Best Practices:

Technology:

- Make the instructions for technological set-up and who to contact for IT support crystal clear and easy-to-follow for teachers.
- Conduct a virtual visit for participating teachers prior to their students' virtual visit. Teachers can test out the technology set-up and troubleshoot any problems ahead of the student virtual visit.
- Depending on your technology set-up, have one "behind-the-scenes" staff person manage the technology and one "on camera" staff person delivering the presentation. It can be difficult for the presenter to manage the technology at the same time. Similarly, working with companies like Learning Times takes the stress of managing the technology off of the presenter.
- Conduct a virtual visit pilot with a small group of teachers to troubleshoot issues ahead of time and to get feedback on the quality of the program. Provide incentives to teachers for their participation.
- Work in partnership with local bridging programs to ensure schools in rural and remote communities have the required bandwidth to participate in virtual visits.
- Have back-up Ethernet cables, microphones, and cameras at the ready.

Pedagogy:

- Provide a pre- and post-visit teacher guide including object lists with images, activity ideas, and cross-curricular connections.
- A professional development virtual visit for teachers prior to their students' virtual visit allows the museum educator to teach inquiry and object-based learning methodologies, demonstrate how to connect the virtual visit content to their classroom teaching, and how to manage students' responses and behaviour during the virtual visit.
- Always have a back-up plan. Some classes are well-prepared for their virtual visit and some are not. Adjust your lesson accordingly after having assessed their prior knowledge in your introduction.
- Be patient – interactions between the museum educator and the students require wait time due to the slight technology delay (i.e., only one person can use the microphone at a time, teachers having to field questions and answers from students before typing into the chat box). Useful techniques for managing wait time include paraphrasing, reviewing, and sharing fun facts and information.
- Be prepared for the fast pace of a virtual visit – time flies when you are having fun! Determine the main idea you want students to take away for each artwork and use inquiry to guide them there.
- Depending on your technology set-up, the use of prepared slides can make the virtual visit feel more scripted and less organic than a two-way live video feed. Prepared slides can provide high resolution detail of artwork that sometimes zooming in with a camera and inadequate lighting may not be able to provide.
- If the virtual visit consists of images and audio only, consider how you might modulate your voice to create and sustain interest as well as encourage responses from participants.
- In addition to breaking down geographic barriers, some teachers choose virtual visits because the format is conducive to how their students learn (less distractions in the classroom compared to a museum environment, information delivered in different media including video, audio, images, and text). Ask teachers upon booking to describe any special needs in their classroom so that you can prepare accordingly.

What is the future of virtual visits with schools?

- Free online education content (iTunes U)
- Massive Open Online Courses (MOOC)
- YouTube videos (professional development videos for teachers e.g., modeling close looking strategies)
- Use of Cloud-based technology
- Pairing virtual visits with tactile experiences offered by travelling "museum-in-a-suitcase" kits that participating teachers can rent from the museum