Technology, Orientations, and the Land of Oz

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Introduction

In a moment of bravery, I invited eight unacquainted teenagers to the Michigan State University Museum and allowed actually encouraged them to tell me what they liked and didn't like about our museum and museums in general. And they did! Teams were then turned loose in the halls with clipboards, a tape recorder and the goal of developing their own version of an orientation to each floor. They were at first shy, goofy, sarcastic and then animated, excited, enthused and finally, thoughtful, reflective and productive. They wrote and audio taped their own narration, digitized the narration and ventured into editing the digitized sound. A moment of excitement came when one team discovered that they could electronically cut out a mis-pronunciation of the Capital city of the Aztec Empire Tenochtitlan and then paste in a new pronunciation.

This experiment to bring in younger perspectives and voices is part of our effort to use technology to develop orientation programs that are engaging, effective, personally meaningful and cost effective! As a university museum, the Michigan State University Museum prides itself on our collections, our research and our scholarly approach to our exhibits and programs. Over the past decade or so, we have striven to keep our intellectual integrity while increasing our accessibility as we explore ways to re-define who we are and how we relate to our visitors. One of our first efforts was to install an information desk and an orientation room. We then faced the problem of how to produce an orientation program that could be kept current with minimal resources.

Introducing Photo CD Portfolios

After some investigation, we discovered KODAK's Photo CD Portfolio. Like the photo CDs, this format is stable, the image quality high and cost relatively inexpensive. But unlike the photo CD, the photo portfolio includes audio, capability for interactivity, and greater storage. Watching a Photo CD Portfolio presentation is similar to watching a slide show on a video monitor.
The CD player can be connected directly to a video monitor or a VCR and driven by a remote control. Features include continuous play, selecting specific slides or sections of the program, zooming in and out or rotating images on the screen. The CD can also be played on a computer with the interactivity or menu choices controlled by the keyboard, a mouse or touch screen.

Images can be created from either a PICT, a TIFF or from a photo CD. We create most of our screens by digitizing slides using a Leafscan 35 which supports 16bit color and resolution up to 4,000 DPI, and then manipulating them with Adobe Photoshop. Screens can include images and text. When we discuss special exhibits, we show an photo of the exhibit with text about dates and location reinforcing the audio information. (See Figure 1.) Screens can also combine several images an advantage in comparing or showing multiple examples of a concept, principle or program. For example, when we discuss the activities at the MSU Museum, one screen includes photos of field research, a school tour group, two kids with a touchbone, a curator investigating a piece of pottery and a gallery demonstration. (See Figures 2 and 3) Seeing multiple images at one time versus independently changes the way the viewer processes and integrates the images and the concept.

We currently audio tape the narration using a Sony Pro Walkman but plan to switch to a digital tape recorder. The audio is then digitized, edited and mixed using either the software program Sound Edit Pro or the more advanced Sound Edit 16. The audio and the screen images are finally brought together using Kodak's ArrangeIt. This software uses a simple draganddrop interface which allows the user to sequence the screens, match appropriate audio, and perhaps most exciting, add branching points or menus for users to select paths. (See Figure 4.)

This format has allowed us to develop programs that I believe represent a more effective and efficient use of our limited resources and allows us to experiment with our orientation presentations as our ideas evolve about our identify and about our visitors.

Museums, Visitors and the Land of Oz

Remember how Dorothy traveled great distances and overcame great odds to see the Wizard of Oz who could help her get back to Kansas? When Dorothy finally has her audience with the great and invisible Wizard, her faithful dog, Toto, pulls away the curtain to reveal the wizard as a vulnerable and totally human personan educated, wise and caring man, but still just a man. When Dorothy sees this, she finally realizes that no one can get her to Kansas except for her, and when she relies on herself, she finds that she has the power within her (actually within her shoes), to get herself home.

What does this have to do with museums and orientation program? Visitors often come to museums as Dorothy did overcoming great odds to get there and expecting an encounter with wisdom and perhaps
even a moment of revelation. Like the wizard, we museum professionals are (I believe), wise, caring and educated, but by remaining anonymous and behind the curtain, we may rob the visitor of the experience possible when we reveal ourselves and engage in dialog rather than lecture. An effective orientation program pulls away the curtain, reveals who is behind the curtain, and puts the visitor in charge of their experience.

The Voice Behind the Curtain

Does it change the way someone experiences an exhibit when they discuss it with a paleontologist, art historian, spouse, child, teacher, or perhaps someone part of the exhibit or part of the context of the exhibit? Does it change the experience to hear different perspectives? I believe that the experience becomes more real, more meaningful and more personal to the visitor when they can identify an individual behind the words, and when they can identify the perspective and consider how that perspective is similar or different from their own. Identifying the voice behind the curtain de-mysticizes the museum and empowers the visitor.

Because it is relatively inexpensive and easy to produce our CDs, we have experimented with a number of different approaches in our voice and perspective. In one orientation program, I used a mix of brief comments from visitors for the introduction and closing of the program hoping to complement and balance the sole voice of the narrator.

Another orientation program was specific to an exhibit about Ethiopian traditions and the narration (and content editing) was done by an Ethiopian graduate student. Visitors commented that her rich Ethiopian accent added to the authenticity of the presentation. After a few weeks of play and a critical review by an evaluator, we realized that it also needed the perspective and voice of the curator. In a space of a few days, we were able to create the new segment, experiment with the right location for dropping in this new sequence, and press a new CD.

More recently, I am experimenting with an orientation program that has three tracks one from the perspective and with the voice of a museum professional, one for teachers (written and spoken by teachers) and one from young people. Visitors will be able to select the presentation they want or museum professionals can pre-set the presentation. This is the experiment I discussed in the introduction. At the conference, I will demonstrate the prototype which only has one floor interpreted by teenagers. Later this year, I am hoping to involve a group of teenagers in a multimedia workshop where they write their own scripts, go through a review process, take the photos, digitize and edit the audio and images and then create a CD orientation to the museum. Technology seems to be a great hook to involving teenagers in museums. During the pilot test, the teenagers involved were extremely involved and thrilled that we would actually use their ideas and voices.
Interpretation

Once inside the gates or doors of our institutions, it is easy for visitors to get lost as they search for the bathrooms or wander through several 100 years of prehistoric life. There is no yellow brick road showing the way and we often assume that the intentions of the exhibit or museum designers are obvious. There is of course, a structure and a plan behind both the physical layout and the interpretive approach to our museums and/or exhibits. Making this plan explicit to the visitor is part of pulling back the curtain. It exposes the structure and empowers visitors to explore the resources of the museum, to find their own meaning within a context where the structure is not imposed, but at least known. This is not abdicating our responsibilities as professionals who have developed ourselves to understanding and studying the content of our museums, but it means sharing our wisdom in a way that is meaningful to visitors, engaging them as part of the process of interpretation.

The photo CD format offered some advantages and limitations in trying to describe the physical and conceptual approach of our museum and for introducing strategies for reading the exhibits. The static screens and ability to easily create screens with PICTS make it a simple task to integrate floor plans with actual photos of exhibits and in the future, these maps may become interactive. The audio can include tips from museum professionals or visitors. With the multiple images, it is easier to show examples of concepts or to compare galleries. For example, we discuss how most galleries are generally arranged chronologically (like our Heritage Hall), geographically (like our Habitat Hall) or conceptually, and on one screen, we have images of each. However, video would be more powerful for scanning some of the galleries, providing context or background and for modeling and demonstrating interpretive strategies. Instead, we have selected slides of visitors which model strategies such as a couple conversing, a teacher sitting on the floor with a small group, a parent crouched on the floor with a child pointing to an exhibit and engaged in discussion.

Summary of the Limitations and Advantages of the Photo CD Portfolio

Advantages include in-house control over the development process, lowtech approach, durability of format, ability to control with a remote control rather than computer, the ability to combine multiple images or images and text, branching capabilities to match interests of audience and the opportunity to select, freeze, zoom and otherwise manipulate images on screen.

The format also supports and encourages prototype testing and revisions. The program can be assembled on the computer and shown to the rest of the development team or tested with visitors (although what they see and hear is a limited version of the final product). Different iterations of the program can be quickly assessed by changing the sequences or images or the audio with no more than
a click and drag. Even after the program is pressed on a CD, a revision is much easier than is possible with video editing or other processes.

There are also strong limitations to this format beginning with the obvious differences between a video presentation and a slide presentation particularly in attracting and holding visitor attention and in showing activities or behaviors. The current players do not support continuous audio or a wide variety of transitions between screens. Each audio segment is tied to an image which limits possibilities like a music track playing continuously while slides change. The transitions between screens are limited to screen wipes which are bothersome both aesthetically and from an interface design perspective as different transitions (fades, dissolves, etc.) are often used to cue the viewer to a different segment of the program (i.e. between floors or segments of the program.) During the development phase, the emulation playback only shows in a small window so it is difficult to get the real impact and sometimes flaws in the screen designs aren't noticeable until the CD is pressed and shown on a large screen.

Future Directions

The future of this format in museums is dependent both on the support Kodak provides and on the ways museums use it. We will continue to use this format as it fits our style and budget. I hope to experiment more with the interactivity and possible home or school use. Currently, the Canadian Museum of Civilization is developing four different interactive photo CDs which will be marketed to the home audience. This type of effort will most likely increase interest in the format, develop an audience sensitive to this type of presentation and perhaps encourage more development from Kodak.

If orientations are the beginning of the dialog between visitors and museums, it is critical that visitors are part of the design team as either participants or part of a systematic evaluation. I hope to continue collecting both anecdotal and more systematic information about the ways visitors respond to our orientation content and format and to explore other ways to facilitate the dialog between visitors and museums.

Final Comments

An effective orientation program is an introduction between a visitor and the staff of a museum it is the beginning of a dialog, the establishment of a meaningful relationship. If technology is of value to museums, and I believe it is of tremendous value, it is when it allows and perhaps even encourages us to reexamine and re-create our relationships between and among museums, visitors and our communities as we continue our quest to create friendly environments where authentic dialog and experiences lead to a richer understanding and interaction with our social and natural environment.
Fig. 1 Screen with text and image announcing special exhibit

![Wild Cat](image1)

*Wild Cat*

*Powerful Predators, Vulnerable Prey*

Main Floor Gallery

Through September 10, 1995

Fig. 2 Screen with multiple images of museum activities

![Multiple Images](image2)
Fig. 3 Multiple images showing variety of exhibits

Figure 4 Sequencing images and audio with Arrange-It software