

## **Teaching in the virtual museum**

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A paper presented at the Ontario Museum Association's Colloquium on Learning in Museums VII held in Peterborough, Ontario on October 20, 2004

A great deal has been written lately about online learning in the virtual museum (Goldman & Schaller, 2004; Korteweg & Trofanenko, 2002; Schaller & Allison-Bunnell, 2003; Soren, 2004a, 2004b). In this paper I discuss the challenge and promise of *teaching* in the virtual museum. I begin by reviewing the concepts of the virtual museum and the virtual exhibit, then move to consider the purposes of teaching. I examine how our knowledge of “real museum” teaching can be adapted to new work on the Internet. In conclusion I reflect on what meaning this may have for Ontario museums.

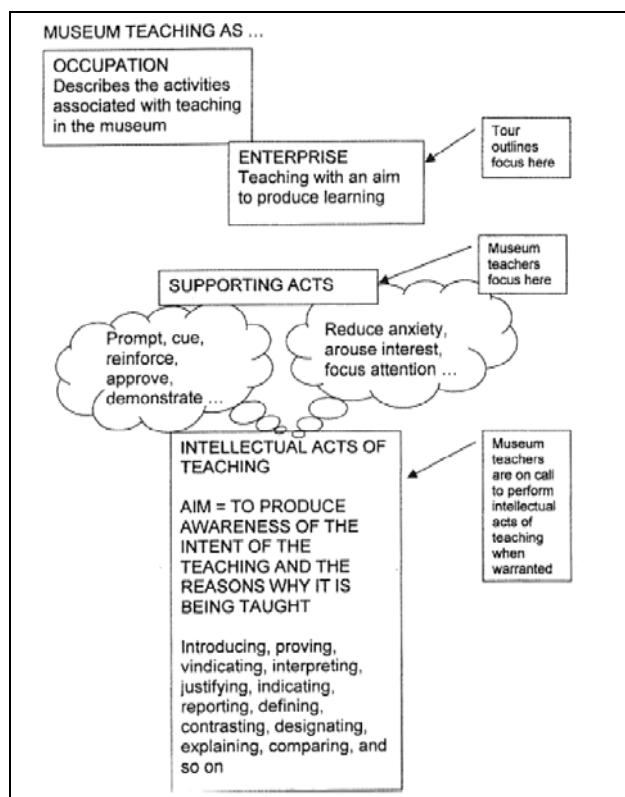
### **Virtual museums and virtual exhibits**

A virtual museum is “a logically related collection of digital objects composed in a variety of media ... A virtual museum has no real place or space and its objects and related information can be disseminated all over the world.” Within a virtual museum are virtual exhibits in which individuals “find their own meanings by using state of the art animation, sound, and search capabilities ... A Virtual Exhibit provides an online entrance hall for a global audience in a presentation that brings to life the potential dynamism of objects and their stories” (Soren, 2004a). The learning theory constructivism underlies much educational practice in museums and has come to inform the design of virtual museums as well (Schaller & Allison-Bunnell, 2003). As Hein notes, this brings opportunities as well as challenges:

Constructivism is an appealing theory ... It is significantly more challenging when viewed from the perspective of the teacher. If meaning-making is personal and idiosyncratic, what is the role of the teacher? What strategies are appropriate for teaching in a constructivist world? (Hein, 2002)

## What is teaching?

In order to talk about virtual teaching I need first to revisit work I presented on “real museum” teaching at the OMA Colloquium in 2001 (Castle, 2001). The work of Paul Komisar continues to inform my thinking.



**Figure 1 Purposes of teaching. Adapted from Komisar 1968 (Castle, 2001).**

To review briefly, Komisar hypothesizes that there are three levels of teaching: (1) teaching as occupation, (2) teaching as enterprise, and (3) teaching as supporting and intellectual acts (Komisar, 1968). The occupational level deals with activities that

teachers habitually engage in. The teaching-as-enterprise level addresses teaching as an activity in which one engages with an intent to produce learning. The third level, intellectual and supporting acts of teaching, aims to produce awareness by divulging to the learner not only the intent of the lesson but also the reasons behind it. Because they are predicated on an understanding of museum learning as a lifelong process in which the learner chooses to participate, intellectual and supporting acts of museum teaching imply a constructivist orientation to learning. Intellectual acts of teaching aim to produce awareness rather than specific products of learning, and seek not agreement but rather convincing reasons, evidence, justification, and conclusion for the learner's responses. The learner is thus afforded greater autonomy than is possible in learning as an enterprise.

The challenge for the teacher becomes one not only of transmitting information but of creating a meaningful context within which learning can occur (McDaniel *et al.*, 1997). To do that successfully, the reasons, evidence, justification, and conclusion that underlie teaching must be clear to the learners as well as to the teachers (Green, 1964; Kilbourn, 1982). This transparency encourages the genuine participation that allows teacher and learner to carry on a “conversation of instruction” (Green, 1964).

### **A virtual conversation of instruction?**

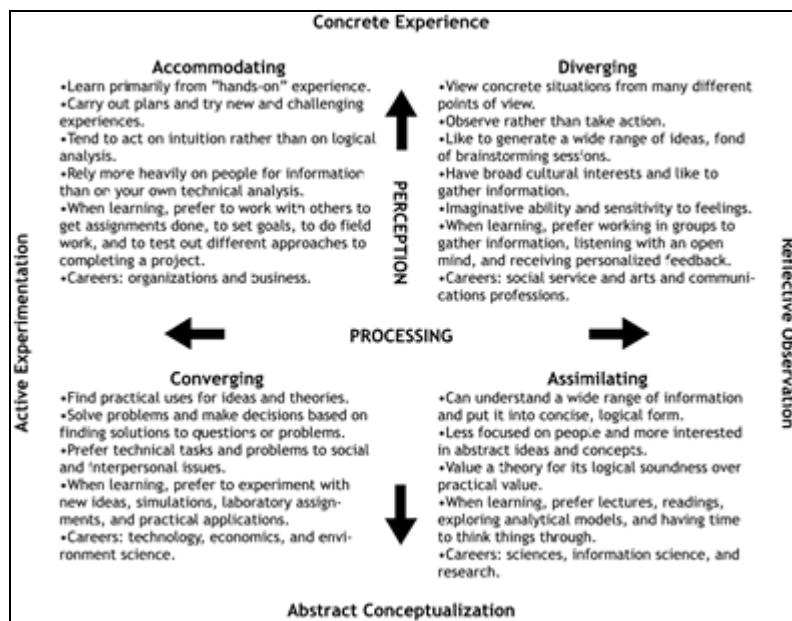
So how do we as museum educators carry on a virtual conversation of instruction? An online CHIN (Canadian Heritage Information Network) Tip Sheet offers advice to help Web designers create a meaningful context within which learning can occur:

- **enable users to explore freely**, browse at their own pace, interact with online content, share experiences with others, and expand their understandings;
  - **facilitate and encourage multiple voices** and the exchange of stories;
  - **provide a wide range of active learning approaches**, entry points, and points of view in order that individuals can connect with online images and ideas, and relate them to their own knowledge and experiences;
  - **invite people to ask questions** that no one else can ask about the online content in order to become the most aware people they are capable of becoming;
  - **help users search for meaning**, look for patterns, and invest their online experience with significance as they interact with online museum products.
- (Soren, 2004b)

However, the concept of a conversation of instruction suggests that the virtual museum teacher must take a more active role in encouraging dialogue. In order to do this the museum teacher must not only help visitors make personal meaning but also must find ways to reveal the intent of the virtual exhibit and the reasons behind it.

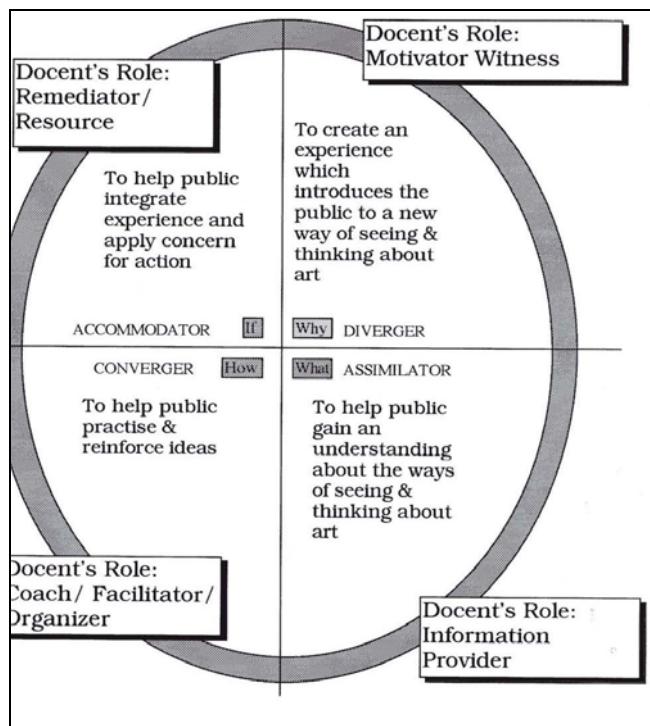
By exploring the work of Kolb, Gardner, and Egan, Schaller and Allison-Bunnell (Schaller & Allison-Bunnell, 2003) demonstrate how learning theory can inform Web site design. Yet a complete educational theory requires not only a learning theory but also epistemological and pedagogical or teaching theories (Hein, 1998). I would like to focus on the application of Kolb's learning theory to teaching.

## Kolb's model of learning styles



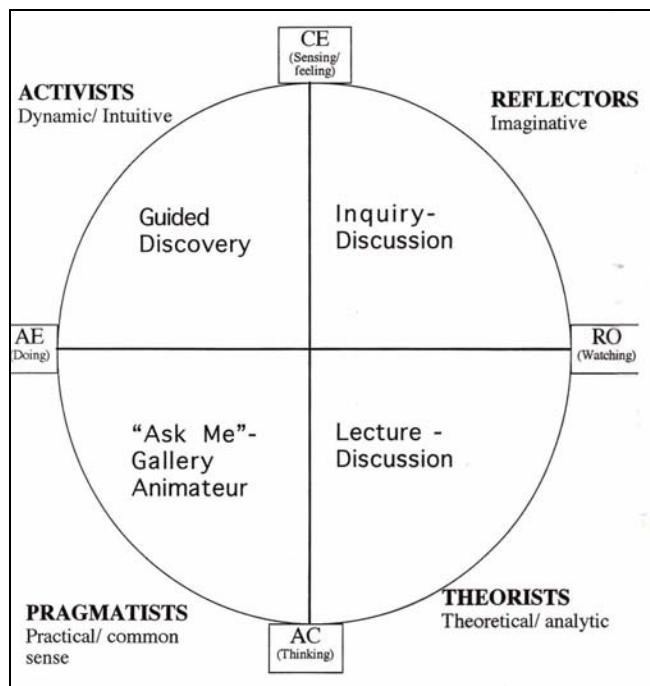
**Figure 2 Kolb's model of learning styles. From (Schaller & Allison-Bunnell, 2003) derived from (D. A. Kolb *et al.*, 2000) .**

Kolb's model of learning styles, with its twin axes of perception and processing, is a useful way to begin to look at learning. In training sessions for docents and interpreters I use the "Learning Styles Inventory," a method developed by Kolb to help participants identify their own learning styles (D. Kolb, 1984). It is invariably a good jumping-off point for discussion of the different approaches to learning that are used not only by the docents themselves but also by the museum visitors with whom they work. But I have found that an even more useful training tactic is to switch the perspective on Kolb's model from learning to teaching (see Figure 2).



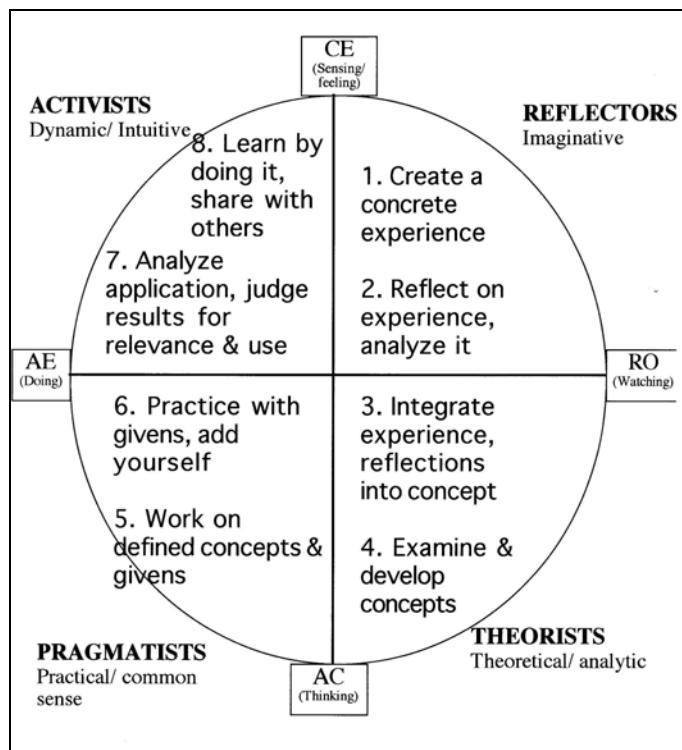
**Figure 3 Kolb's learning styles applied to teaching. Adapted by the author from *Teaching and learning styles: Celebrating differences* (Huff et al., 1986)**

In Figure 3 we can see how Kolb's framework can help educators better understand and choose from the different types of tours and programs.



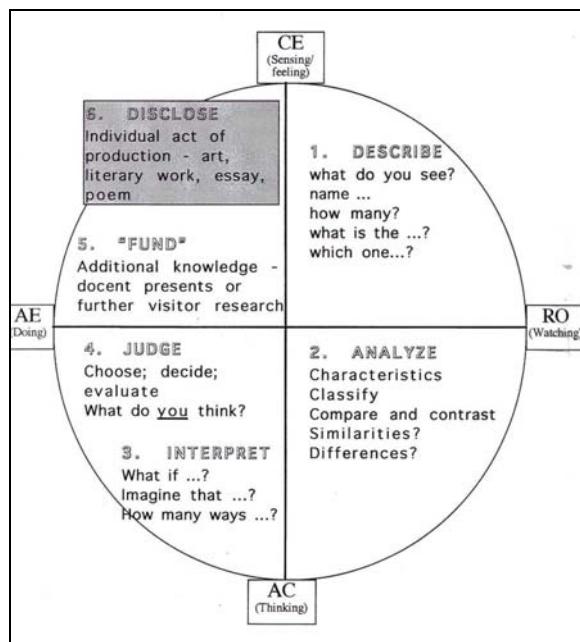
**Figure 4 Kolb's learning styles applied to types of tours in the “real” museum**

Most useful is Kolb's theory of the experiential learning cycle (Figure 5). Kolb theorizes that we need to move through this cycle in order to learn. Our personal journey of learning may not take place in the order presented in this chart: we each have a preferred approach to learning and are likely to start and perhaps linger in that quadrant. But in order for us to truly learn – by which I mean experience a change of some kind in attitude, perception, behaviour, and so on – we need to move through the entire experiential learning cycle.



**Figure 5 Kolb's Experiential Learning Cycle**

Figure 6 shows the application of Kolb's theory to an inquiry–discussion tour. The names of the six steps – describe, analyze, interpret, judge, fund, and disclose – are based upon Robert Ott's process called “Image Watching” (Ott, 1993). Ott developed Image Watching as a strategy for learning about art, but its systematic approach is useful for the study of many disciplines.



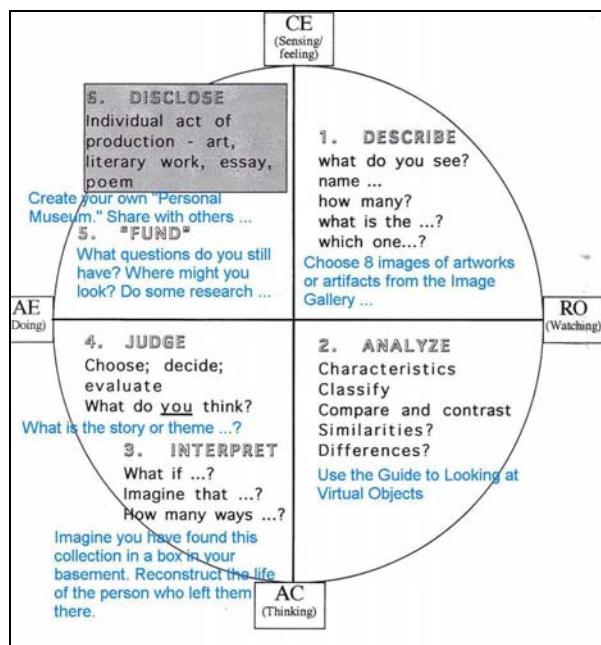
**Figure 6 Application of Kolb's experiential learning theory to questions on an inquiry-discussion tour**

Now let's look at an application of this approach to Web site design.

### Museum teaching on the Web

In 2002 I was hired to design a supplementary users' guide for one of the Virtual Museum of Canada's online activities. *My Personal Museum* is an interactive program that allows the user to work with images of works of art and artifacts from museum collections across Canada. The program enables the user to become a "virtual curator" by choosing pieces from the collection, sorting and categorizing them, writing labels, and ultimately creating a "virtual exhibit." The goal of my project was to suggest ways in which schoolteachers could make use of *My Personal Museum* in their classrooms. The Virtual Museum of Canada wanted to (1) provide guidance on how to engage students in culture, not just online but also in "real" museums and galleries, and (2) to link *My*

*Personal Museum* to school curriculum outcomes wherever possible. The possibilities for such an assignment are almost limitless and therefore somewhat daunting. However, the application of Kolb's experiential learning theory to this milieu offered a framework with which to begin.



**Figure 7 Application of Kolb's experiential learning theory to an online program**

Figure 7 shows how the experiential cycle developed for a tour helped me to address the needs of different learning styles for students by using *My Personal Museum* in the classroom. It also demonstrates how the design of an online program can help guide students through the learning cycle. While visitors have more autonomy than they would on a "real museum" guided tour, they do have a path to follow, should they choose to do so. Following the path creates the potential of entering into a virtual conversation of instruction with the museum educator.

## So what?

Virtual museums are the trendy new wave of the future. Yet as Weil notes in reference to earlier technological advances in the museum world, “the “ensemble of practices” that we have developed permits us to sometimes perform the most dazzling museological feats simply because we can, and not because the outcome necessarily fulfills any legitimate purpose or meets any genuine need” (Weil, 1990). The work that we have done as museum educators in developing “real” guided tours and educational programs may no longer be trendy, but the practice and theory developed there may still provide us with solid footing upon which to surf the new waves of the Web.

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