

Evaluation of Virtual Museums:
The Good, the Bad and the Useless

A Pathfinder

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Evaluation of Virtual Museum: The Good, the Bad and the Useless Introduction

In recent years virtual museums have proliferated on the World Wide Web. At least one source estimates number of virtual museums currently online at 5,000.¹ While many see the electronic landscape as the future of the museum, or at least, as enhancing the appeal of “real” museums, the museum community has become increasingly concerned about the role and quality of this new form of museum. The commentators have evaluated virtual museums in three ways. First, authors are contemplating the purpose of virtual museums and their role in museum culture. Second, website builders have used the experience of building virtual museums as a way to evaluate virtual museums in general. Third, commentators are setting forth external standards to evaluate virtual museums.

The large number of articles concerning the experience of building a virtual museum website makes it impossible to cover all three types of evaluation in this pathfinder. My pathfinder will focus on the literature contemplating the role of virtual museums and the various articles setting out evaluation standards. I intend this pathfinder for users in a humanities, fine arts, or academic library who are seeking scholarly materials to assist them in building or selecting meaningful, user friendly, and technologically superior virtual museums. Users of this pathfinder will be seeking information on both the purpose of virtual museums and specific evaluative criteria to be applied to them.

I began my research looking for monographs and periodicals in UTNetCat where I browsed the subject headings “museum” and “museums”. During my browse search, I discovered the best subject heading for this topic is “Museums–Technological innovations.” I also performed a mixed keyword search using the term “virtual museums.” Second, I used *Arts and Humanities Citation Index* to find journal articles on this topic. I used the term “virtual museum,” and then focused my

search to [(museum or museums) and (internet or "world wide web" or virtual)]. Third, I searched *Encyclopedia Britannica* to find an introductory article on virtual museums. Finally, I searched the World Wide Web using the term "virtual museum" in the search engine, Google <<http://www.google.com>>.

My research uncovered a surprisingly large volume of articles and papers on virtual museums in general and evaluation of them in particular. As a result of the large number of items available, I limited my search to items that one can find either on the Web or in the U.T. General Libraries. I also restricted the date of my information to 1997 and after.

Based on the information I located, I prepared a pathfinder and an annotated bibliography to assist people interested in building their own virtual museum or in evaluating an existing website. The pathfinder can be located at <<http://www.gslis.utexas.edu/~vmuseum/pool.pdf>> and the annotated bibliography can be found at <<http://www.gslis.utexas.edu/~vmuseum/pool.pdf>>.

1. Davis, Douglas, "The Virtual Museum, Imperfect But Promising," *New York Times*, 24 September 2000, 2.

An Annotated Bibliography for Evaluation of Virtual Museums

Style manuals used: Turabian, Kate L. *A Manual for Writers of Term Papers, Theses, and Dissertations*. 6th ed. Chicago: University of Chicago Press, 1996. For electronic resources, I consulted the following resource: University of Southern Mississippi. *Turabian Style Guide*. (June 13, 2000). (Online). Available from <<http://www.lib.usm.edu/~instruct/guides/turabian.html>> [October 28, 2000].

1. *Articles First*. OCLC Online Computer Library Center, Inc., 1990-present. (Online database). Available from <<http://www.lib.utexas.edu/Indexes/A.html>> [October 29, 2000].

Database indexes 13,500 journals. This index is particularly good for searching for both humanities and scientific articles, which is important since the evaluation of websites is a multi-disciplinary endeavor. The most efficient search to perform in this database is the keyword search: virtual (museum or museums).

2. *Arts and Humanities Citation Index*. Institute for Scientific Information, 1989-present. (Database online). Available from <<http://www.lib.utexas.edu/Indexes/s-ArtsHumanities.html>> [October 28, 2000].

ACI indexes journal articles from a variety of topics in the arts and humanities, including museum journals and art journals. In addition to bibliographic information on an indexed article, *Arts and Humanities Citation Index* provides a list of journal articles cited in each indexed article and indicates if the indexed article has been cited by other authors. Articles on virtual museums can be obtained by selecting the Full search option and entering the search query [(museum or museums) and (internet or "world wide web" or virtual)] in the Topics field.

3. Bowen, Jonathan. "The Virtual Museum." *Museum International* 52 (January 2000): 4-7. (Database online) Available from <<http://www.lib.utexas.edu/ejour/>> [October 28, 2000].

Bowen introduces an issue of *Museum International* devoted to virtual museums. His article contemplates reasons a museum might produce a virtual museum and highlights factors that "real" museums might consider when building a virtual museum. The article briefly surveys other articles in this issue.

4. Bowen, Jonathan. "Virtual Visits to Virtual Museums." In *Museums and the Web: An International Conference in New Orleans, La., March 11-14, 1999*. (Online). Available from <http://www.archimuse.com/mw98/papers/bowen/bowen_paper.html> [October 28, 2000].

Bowen presented this paper at the Museums and the Web Conference. It comprehensively lists a variety of purposes for building a virtual museum and evaluates a small and a large virtual museum. Additionally, Bowen links readers to an online index of virtual museums maintained by the International Council of Museums.

5. Cleary, Yvonne. "An Examination of the Impact of Subjective Cultural Issues on the Usability of a Localized Web Site- The Louvre Museum Web Site." In *Museums and the Web: An International Conference in Minneapolis, Mn ., April 16-19, 2000*. (Online). Available from <<http://www.archimuse.com/mw2000/papers/cleary/cleary.html>> [October 28, 2000].

Cleary discusses cultural considerations of virtual museums. This article sets out and applies evaluation criteria to the Louvre website to determine its usability by people of different cultures. Her main thesis that virtual museums must be culturally sensitive and consider their international clientele is an extremely important lesson for builders of virtual museums.

6. Davis, Douglas. "The Virtual Museum, Imperfect But Promising." *New York Times*, 24 September 2000, 2.

This *New York Times* newspaper article evaluates the presence of virtual museums on the World Wide Web. Davis' description of his experiences with virtual museums and his consideration of their place in museum development provides insightful hints to make virtual museums more enjoyable. The casual style of this article belies its depth of content.

7. Dierking, Lynn and John H. Falk. "Understanding Free-Choice Learning: A Review of the Research and its Application to Museum Web Sites." In *Museums and the Web: An International Conference in Toronto, Canada, April 16-19, 1998*. (Online). Available from <http://www.archimuse.com/mw98/papers/dierking/dierking_paper.html> [October 28, 2000].

The authors of this article extrapolate their research defining characteristics of visitors to "real" museums to virtual museums. They conclude that it is important for website builders to know their audience so that they can create a meaningful museum experience for them. In light of the dearth of research on visitors to virtual museums, this article provides builders of virtual museums with some helpful ideas about the salient characteristics of their potential clientele.

8. Dietz, Steve. "Telling Stories: Procedural Authorship and Extracting Meaning from Museum." In *Museums and the Web: An International Conference in New Orleans, La., March 11-14, 1999*. (Online). Available from <<http://www.archimuse.com/mw99/papers/dietz/dietz.html>> [October 28, 2000].

Dietz advocates the innovative use of a virtual museum's potential to provide an interactive narrative experience for the virtual museum visitor. Application of Dietz's ideas would imbue virtual museums with a purpose that could not be performed by "real" museums. This article provides an interesting insight into the role of the virtual museum.

9. Douma, Michael. "Lessons learned from WebExhibits: Practical suggestions for Good Design." In *Museums and the Web: An International Conference in Minneapolis, Mn ., April 16-19, 2000*. (Online). Available from <http://www.archimuse.com/mw2000/papers/douma/douma.html> [October 28, 2000].

Article contains detailed list of criteria distilled from Douma's experience in building the "WebExhibits Catalogue," an index of high quality web exhibits. The detailed criteria provides helpful hints for builders of virtual museums, as well as good criteria for evaluating existing sites. The link for the "WebExhibits Catalogue" is <http://www.webexhibits.org/> and can be accessed from the body of the article.

10. *Encyclopedia Britannica Online*, 1999-2000. (Database online). Available at <http://www.britannica.com/> [October 28, 2000].

Encyclopedia Britannica provides basic articles that define little known terms or concepts. I searched the term "Virtual Museum" to obtain a good definition of virtual museums, an idea of their primary uses, and the issues facing them. I located this article by using the search terms "virtual museum." Additionally, I entered the term "museumology" to pin down the exact meaning of that term.

11. *Google*. Google, Inc. (Online). Available at <http://www.google.com> [October 28, 2000].

A complex search engine that utilizes a specialized software called PageRank(tm) to deliver high quality, relevant websites in response to a user's search query. Provides text from the website to show the context in which the search engine located the search query terms. A large number of relevant websites on virtual museums can be found using the simple search query "virtual museums."

12. Karabin, Amy. "Investigating Art Museum Web Sites: A Three-Part Approach." In *Museums and the Web: An International Conference in Minneapolis, Mn ., April 16-19, 2000*. (Online). Available from <http://www.archimuse.com/mw2000/papers/karabin/karabin.html> [October 28, 2000].

Author provides three part frame to investigate the educational potential of art museum websites. The evaluation criteria includes technological, design and source considerations, web characteristics thought to enhance learning, and the application of National Visual Arts Standards to virtual museums. Karabin uses her criteria to evaluate ten art museum websites.

13. Keene, Suzanne. *Digital Collections: Museums and the Information Age*. Oxford: Butterworth-Heinemann, 1998. [Fine Arts Library: AM 133 K44 1998].

This book surveys the process involved in building a virtual museum. Keene focuses not only on the technical aspects of the building process, but also on the considerations that must be given to the usability and evaluation of the finished product. Includes a lengthy list of resources for further reference.

14. *Museum International*. Ingenta Publishers, 1997- present. (Database online). Available from <<http://www.lib.utexas.edu/ejour/M.html>> [October 29, 2000].

Museum International devoted two issues to the discussion of virtual museums. These volumes are Volume 51, Issue 4, October 1999 and Volume 52, Issue 1, January 2000. These issues are available online from the U.T. library homepage under "Electronic Journals." Articles in both volumes mainly fall into the second category of website evaluation that was not covered in this article, evaluation based on the experience of building a virtual museum.

15. *Museums and the Web: An International Conference*. A & MI Conferences (Database online). Available from <http://www.archimuse.com/conferences/SPEAKERS_LIST.HTML> [October 28, 2000].

Website forms a bibliography of papers presented at the 1997, 1998, 1999, and 2000 conferences. It provides information about the author, year of the conference, title, and whether the paper is available online. Additionally, the site hyperlinks the user to an abstract of the paper and an online version of the paper, if it's available.

16. Nielsen, Jakob. *Top Ten New Mistakes in Web Design*. May 30, 1999. (Internet resource). Available from <<http://www.useit.com/alertbox/990530.html>> [October 28, 2000].

Nielsen considers how new web technology and applications have brought about a new generation of web design mistakes. *Top Ten New Mistakes* evaluates problematic design elements like designer's improper use of the back button and comments on the use of advertising on a website. This website forms the third installment in Nielsen's series evaluating common website design mistakes.

17. Nielsen, Jakob. *Top Ten Mistakes in Web Design*. May 1996. (Internet resource)> Available from <<http://www.useit.com/alertbox/9605.html>> [October 28, 2000].

This often-cited article succinctly lists ten common mistakes made by web designers. These mistakes include use of frames, lack of navigation support, outdated information, and slow to load web pages. Nielsen's articles are very useful for builders of virtual museums.

18. Nielsen, Jakob. "*Top Ten Mistakes*" *Revisited Three Years Later*. May 2, 1999. (Internet resource). Available at <<http://www.useit.com/alertbox/990502.html>> [October 28, 2000].

The second installment of Nielsen's commentary about web design mistakes. This web page reassesses the top ten mistakes he pointed out in May 1996 and gives an updated analysis of them. Additionally, Nielsen scores the severity of the top ten mistakes.

19. Paolini, Paolo. "To Use or Not to Use? Evaluating Usability of Museum Websites." In *Museums and the Web: An International Conference in Toronto, Canada, April 16-19, 1998*. (Online). Available from

<http://www.archimuse.com/mw98/papers/garzotto/garzotto_paper.> [October 28, 2000].

Paolini sets out an evaluative approach entitled SUE (Systematic Usability Evaluation) specifically designed to evaluate virtual museum website. SUE uses a model, usability attributes, and a set of abstract tasks to test various aspects of virtual museums. Usability attributes include consistency, predictability, accessibility and user orientation.

20. Teather, Lynn. "A Museum is a Museum is a Museum . . . Or Is It: A Discussion of Museology on the Web." In *Museums and the Web: An International Conference in Toronto, Canada, April 16-19, 1998*. (Online). Available from <[Http://www.archimuse.com/mw98/papers/teather/teather_paper.html](http://www.archimuse.com/mw98/papers/teather/teather_paper.html)> [October 28, 2000].

Article extensively discusses the role and meaning of museums and virtual museums in society, both historically and in modern times. Teather reflects on the various purposes for having a virtual museum and how virtual museums can be evaluated. Her evaluation focuses on the user.

21. Teather, Lynn and Kelly Wilhelm. "Web Musing': Evaluating Museums on the Web from Learning Theory to Methodology." In *Museums and the Web: An International Conference in New Orleans, La., March 11-14, 1999*. (Online). Available from <<http://www.archimuse.com/mw99/papers/teather/teather.html>> [October 28, 2000].

Teather considers questions of what a museum can accomplish on the Web and what part of the "real" museum experience should be conveyed to virtual museums. In this article, Teather focuses her evaluation on two types of virtual museums, object-oriented, or educational museums, and people-oriented museums. "Web Musing" follows up Teather's 1998 conference paper entitled "A Museum is a Museum is a Museum . . . Or Is It: A Discussion of Museology on the Web" and applies the evaluative criteria discussed in both articles to existing virtual museums.

22. UTNetCat. (Online). Available at <<http://dpweb1.dp.utexas.edu/lib/utnetcat/>> [October 28, 2000].

The web-based version of the General Libraries of the University of Texas at Austin's catalog contains more than seven million volumes. It provides access to full-text journal articles and online indexes. I searched for monographs in UTNetCat using the terms "virtual museums" and "museums-technological innovations" in the subject keyword search function and the mixed keyword search function.

23. Walsh, Peter. "The Web and the Unassailable Voice." In *Museums and the Web: An International Conference in Los Angeles, Ca., March 16-19, 1997*. (Online). Available from <<http://www.archimuse.com/mw97/speak/walsh.htm>> [October 28, 2000].

Walsh ponders the institutionalized attitude, or "Unassailable Voice" as he calls it, that pervades traditional museums. This article contemplates what virtual museums might be like without

the “Unassailable Voice.” Walsh suggests they should be built with an eye to exploiting their interactive capabilities and their potential to provide more in-depth knowledge about their subject than a “real” museum can provide.

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The rising number of virtual museums on the World Wide Web mandates that builders and users of virtual museum have adequate evaluative criteria to determine the quality of a website. This pathfinder will assist both groups in locating the current literature setting standards to evaluate the purpose, technology and usability of virtual museums by answering questions they might pose.

Where do I begin to understand what a virtual museum is?

- *Encyclopedia Britannica*, 1999-2000. (Database online). Available at <<http://www.britannica.com/>> [October 28, 2000]– defines the concept of a virtual museum and discusses its major uses. The article can be located by entering the search term “virtual museum.”
- Keene, Suzanne. *Digital Collections: Museums and the Information Age*, Oxford: Butterworth-Heinemann, 1998– discusses construction of virtual museums and the usability issues that should be considered. Available at U.T. Fine Arts Library.

What topics should I consider in evaluating a virtual museum?

- Commentators are debating the purpose of virtual museums and how well a particular museum fulfills its purpose.
- Commentators are attempting to set evaluation standards that can be applied to various forms of virtual museums.

Which commentators best encapsulate the discussion of a virtual museum’s purpose?

To understand the basic purposes or roles of a virtual museum, read

- Teather, Lynne. “A Museum is A Museum is a Museum . . . Or Is It?: A Discussion of Museology on the Web.” In *Museums and the Web: An International Conference in Toronto, Canada, April 16-19, 1998*. (Online). Available from <[Http://www.archimuse.com/mw98/papers/teather/teather_paper.html](http://www.archimuse.com/mw98/papers/teather/teather_paper.html)> [October 28, 2000].
- Walsh, Peter. “The Web and the Unassailable Voice.” In *Museums and the Web: An International Conference in Los Angeles, Ca., March 16-19, 1997*. (Online). Available from <<http://www.archimuse.com/mw97/speak/walsh.htm>> [October 28, 2000].

Which commentators set forth the clearest standards to evaluate virtual museums?

To formulate concrete evaluation criteria, consult:

- Paolini, Paolo. "To Use or Not to Use? Evaluating Usability of Museum Websites." In *Museums and the Web: An International Conference in Toronto, Canada, April 16-19, 1998*. (Online). Available from http://www.archimuse.com/mw98/papers/garzotto/garzotto_paper.html [October 28, 2000].
- Douma, Michael. "Lessons learned from WebExhibits: Practical suggestions for Good Design." In *Museums and the Web: An International Conference in Minneapolis, Mn., April 16-19, 2000*. (Online). Available from <http://www.archimuse.com/mw2000/papers/douma/douma.html> [October 28, 2000].

How would I locate further resources on evaluating a virtual museum?

For monographs

- Check the subject heading "museums-technological innovations" in UTNetCat. (Online). Available at <http://dpweb1.dp.utexas.edu/lib/utnetcat/> [October 28, 2000].
- Search the mixed keywords option for "virtual museums" in UTNetCat. (Online). Available at <http://dpweb1.dp.utexas.edu/lib/utnetcat/> [October 28, 2000].

For Internet resources

- Use *Museums and the Web: An International Conference*. A & MI Conferences (Database online). Available from http://www.archimuse.com/conferences/SPEAKERS_LIST.HTML [October 28, 2000]– bibliography of speakers from all conferences, which includes hyperlinks to papers available on the Web.
- Locate additional internet resources by entering the search query "virtual museums" in *Google*. Google, Inc. (Online). Available at <http://www.google.com> [October 28, 2000].

For journal articles

- Use *Arts and Humanities Citation Index*. Institute for Scientific Information, 1989-present. (Database online). Available from <http://www.lib.utexas.edu/Indexes/s-ArtsHumanities.html> [October 28, 2000]– Enter [(museum or museums) and (internet or "world wide web" or virtual)] in the Topic field of the Full Search Option.

If you need further assistance, please ask a reference librarian.