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Redefining the Notion of the Museum in the Digital Age: Web 2.0 Technologies and Contemporary Museum Theory

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Abstract: The introduction of digital media and the Internet in the early 1990s into the mainstream cultural landscape prompted new considerations and opportunities for museums to develop and engage with audiences using novel forms of didactic experiences. During this time, both museums and media encountered a paradigm shift in which the notions of accessibility and participation expanded their definitions respectively. Using digital media and, more specifically, Web 2.0 technologies, the museum may not only enhance its ability to act as a mediator between object and audience—allowing for visitors or users to learn, question and engage in ways that have not been possible before—but it also changes the notion of the museum from a material complex to that of an interface in which the museum becomes a communicative device. Within this context, this paper will draw from contemporary museum theory and recent experimentation in social media and virtual construction to explore this changing notion of the museum in the digital age.

Keywords: Museums, Web 2.0, Social Media, Website Design

THE INTRODUCTION OF digital media and the Internet in the early 1990s into the mainstream cultural landscape prompted new considerations and opportunities for museums to develop and engage with audiences using novel forms of didactic experiences. During this time, both museums and media encountered a paradigm shift in which the notions of accessibility and participation expanded their definitions respectively. Using digital media and, more specifically, Web 2.0 technologies, the museum may not only enhance its ability to act as a mediator between object and audience—allowing for visitors or users to learn, question and engage in ways that have not been possible before—but it also changes the notion of the museum from a material complex to that of an interface in which the museum becomes a communicative device. Within this context, this paper will draw from contemporary museum theory and recent experimentation in social media and virtual construction to explore this changing notion of the museum in the digital age.

While the definition of a museum is often contested, it appears that the notion of the museum has shifted and expanded from that of a storehouse or temple of objects to that of a visitor-centered educational repository of objects and information (Schweibenz, 1998). This paradigm shift is evident in such books as Eilean Hooper-Greenhill's *Museums and the Interpretation of Visual Culture* and Gail Anderson's *Reinventing the Museum: Historical and Contemporary Perspectives on the Paradigm Shift*. This swing was not an overnight revelation, but rather a long thoughtful process that took place over the 20th century and has led to new ideas for museums in the 21st century (Anderson, 2004). While many of the essays

in Anderson's book exhibit the shift from being a collection-driven institution to a visitor-centered one, it is Hooper-Greenhill's book that leads to ideas for the future of the museum, especially when it entails the use of computer technology in order for the museum to "play the role of partner, colleague, learner (itself), and service provider" (Hooper-Greenhill, 2000). In her book, she proclaims that, "the production of events and exhibitions as conjoint dynamic processes enables the incorporation into the museum of many voices and many perspectives. Knowledge is no longer unified and monolithic; it becomes fragmented and multi-vocal. There is no necessary unified perspective—rather a cacophony of voices may be heard that present a range of views, experiences and values" (Hooper-Greenhill, 2000).

Many of the needs cited above may be addressed with the current and future capabilities of the Internet, as it is a computer-based information-broadcasting tool that enables collaboration and interaction between individuals within a global community (Leiner et al, 1997).

The term "Web 2.0" has gained great popularity in recent years and it essentially refers to the paradigm shift of the World Wide Web from a publishing model to a participatory and collaborative model of operation using the Web's database and hypermedia capabilities. Examples of current (2009) Web 2.0 innovations include social networking sites such as Facebook and LinkedIn, video sharing sites such as YouTube, as well as wikis and blogs. However, it should be noted that this was an intellectual shift rather than purely a technological one, as such innovations as bulletin boards and forums were already in place (Wikipedia, n.d.a). In Tim O'Reilly's landmark essay, "What is Web 2.0" he reaffirms this idea with the statement, "Like many important concepts, Web 2.0 doesn't have a hard boundary, but rather a gravitational core" (O'Reilly, 2005).

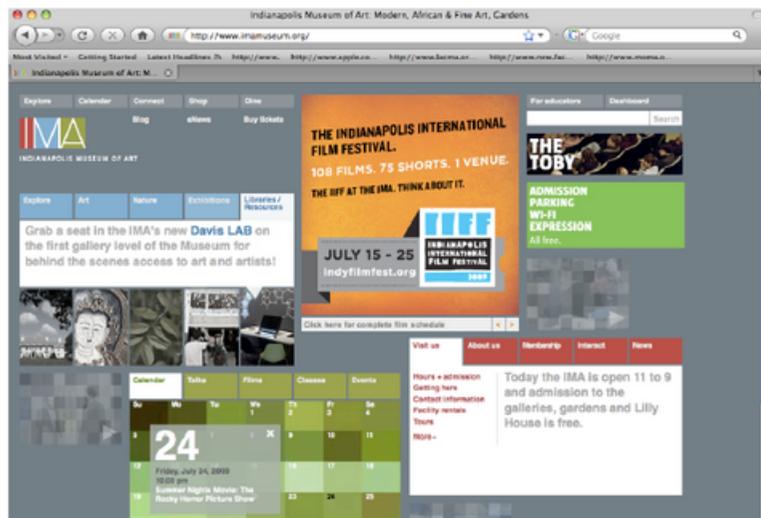
An important component of Web 2.0 is the concept of "social media," which refers to "online content created by people using highly accessible and scalable publishing technologies. At its most basic sense, social media is a shift in how people discover, read and share news, information and content. It's a fusion of sociology and technology, transforming monologues (one to many) into dialogues (many to many)...transforming people from content readers into publishers" (Wikipedia, n.d.b).

While museums have been working with digital automation technologies such as record keeping and inventory control primarily for collections management purposes since the early 1960s, this paper focuses on digital technologies used in museum education, public relations and audience development strategies. In the book *Reinventing the Museum*, Anderson used the following catchphrases to describe current thought in regard to progressive museum philosophy: "inclusive," "audience focused," "multiple viewpoints," "open communication," "dialogue," "two way communication" and "exchange of information" (Anderson, 2004). This outlook is reinforced in the second key idea of the 1992 American Association of Museum's *Excellence and Equity: Education and the Public Dimension of Museums* report, which states: "Museums must become more inclusive places that welcome diverse audiences, but first they should reflect our society's pluralism in every aspect of their operations and programs" (AAM, 1992). With Web 2.0, the Web becomes a platform for a more inclusive dialogue among the global museum visitor, with its architecture of participation where users add value through Web 2.0's ability to harness collective intelligence (O'Reilly, 2005). With a museum's digital assets such as images, video, audio and text, museum media design that employs Web 2.0 and social media technologies—while still being invested in the more authoritative Web 1.0 model as "publisher"—potentially allows the museum to assume

multiple roles as authority, partner and learner in regard to the assembling, dissemination and interpretation of knowledge.

At the 2009 Museums and the Web conference, Maxwell Anderson, Director and CEO of the United States-based Indianapolis Museum of Art, stated, “As social networking continues to grow, a priority for museums should be to open the experiences they offer onsite to visitors online. By prioritizing production of web-based high-definition video, real-time transparency in reporting out museum activities and new avenues of audience participation, museums may be able to stand out in the increasingly cluttered landscape” (Anderson, 2009). This statement appears to be a self-reflective stance of the progressive Web initiatives that have taken place at the Indianapolis Museum of Art and reflects contemporary museum theory through the use of Web-based technologies.

The Indianapolis Museum of Art (IMA) website (<http://www.imamuseum.org>) encourages online visitors to learn, interact and share information. According to its creators, “the site’s design is based on four modules: a ‘how to visit’ module, a calendar of events, a gallery of images from the museum and its collection, and an ‘explore’ module, which focuses on the IMA’s collection, exhibitions, and its other educational resources” (IMA press release, 2007). While offering basic descriptive information such as museum hours, directions, upcoming events, and exhibition and collections information, the museum’s website also offers a blog that presents museum insights and reflections as well as invites visitor commentary. IMA’s online video programming enables online viewers to learn more about the museum and its offerings.



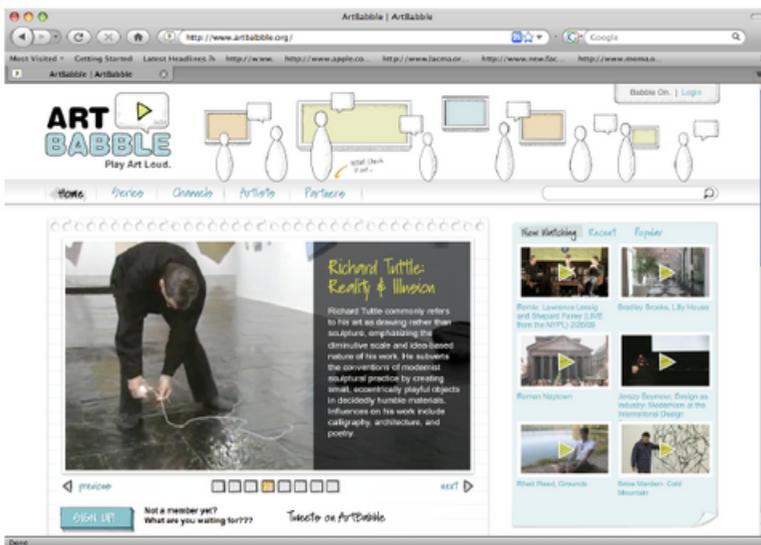
Screen Capture of the Indianapolis Museum of Art Website’s Homepage

In addition to providing public information, the IMA website also encourages audience/visitor feedback comments on its Facebook fan page. With its Flickr account, the museum posts photos of its openings, exhibitions and internal operations and encourages museum visitors to submit their photographs related to the museum. The dashboard component of the IMA website provides up-to-date statistics about the museum, including the current number of memberships, kilowatts used on a particular day, where museum visitors live, and the number

of students served through its four programs. These various Web functions provide transparency and accessibility—two important components within contemporary museum thought.

While the IMA website offers extensive information on planning a visit to the museum—from advice on bringing children to museums to information on its collections, exhibitions and educational offerings—the museum may want to consider integrating a “shopping cart” element to its website, so that visitors would be able to create a list of exhibitions, objects, events and other items that they want to see when visiting the museum. Also, a better integration of IMA’s collection management system within its website might allow visitors to know if a particular object is on view or not and where it is located within the museum exhibition space. Lastly, adding a social media application such as “share this” or “add this” to information on events, exhibitions, collections and objects posted on the website would allow users of Facebook and other social media networks to promote, comment on and inform others about the museum, which could potentially build new audiences and keep existing ones engaged. Nevertheless, it should be noted that the efforts of the Indianapolis Museum of Art’s internet-based initiatives to date are forward-thinking and impressive.

On April 7, 2009 the Indianapolis Museum of Art launched the website Artbabbble.org, which showcases art-based video content. In partnership with the Los Angeles County Museum of Art, The Museum of Modern Art, Smithsonian American Art Museum and Art21, a PBS television program on the visual arts, as well as others, the site presents documentaries, interviews with artists and curators, and art installation videos (IMA press release, 2009).

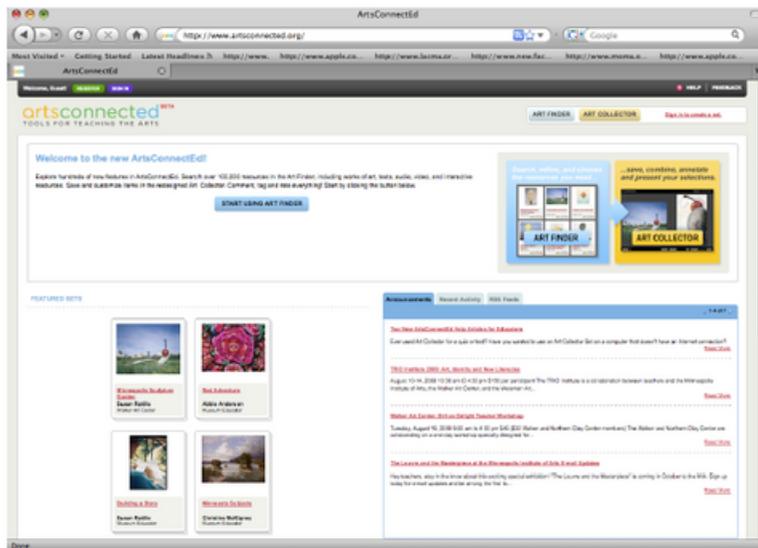


Screen Capture of Artbabbble.org’s Homepage

In addition, the site offers text summaries of the videos, interactive features such as video sharing and viewer feedback, as well as the ability to jump to different points in one of Artbabbles.org’s videos—perfect for an educator within the classroom trying to reinforce a point made in the video. In addition there are related links to each of the videos so that inspired visitors have the opportunity to learn more about the artist, a genre or a technique.

Nevertheless, visitor feedback appears to be superficial, with comments such as “great job,” while others are technological, such as “wishing for closed captioning for those hearing impaired.” To better engage viewers, it might be more beneficial for viewers if content developers would also develop videos with pointed questions that allow for more dialogue and in-depth thoughtful insights among viewers regarding the work or content at hand. Also, since Artbabbble.org is an excellent resource for educators, it would be helpful to have related activities that would encourage further dialogue within the classroom as well as online.

In 1998 the Walker Art Center and the Minneapolis Institute of Arts launched ArtsConnected (<http://www.artsconnected.org>), an online resource primarily for K-12 teachers and students that enables both institutions to digitally share their collections, archives and educational resources with their constituency. Today, the site provides more than 100,000 museum digital assets including images, text, video and audio (Dowden and Sayre, 2009). The strength of this resource is that teachers may create customized thematic presentations based on their own curricular needs or they may use existing thematic presentations developed by museum educators or curators as well as other teachers. With the site’s Art Collector application, teachers, students and the general public may electronically sort and sift through its database to gather content, research and annotate material that will digitally create customized thematic PowerPoint-like presentations for educational purposes.



Screen Capture of ArtsConnected.org’s Homepage

According to its developers, when ArtsConnected was first launched in 1998 it won a number of accolades for its innovative use of digital technologies including Museums and the Web’s Best Education Site and the American Association of Museums’ MUSE award for Best Education Program. However, when the developers began usability testing they realized that their end users were uncertain about how to actually use it. From that moment on, usability testing served as an important component of their redesigns. It was also decided that the development of future iterations required input from museum technologists, educators and administrators as well as the community and would enable the site to be a valuable resource

both internally (i.e., for museum educators) and externally (i.e., for teachers, students and others within the community) (Dowden and Sayre, 2009).

As new ideas that use digital technologies such as video and social media applications are considered or employed by the museum, it is important to review and evaluate their effectiveness with audience research and institutional reflection, enabling audience development initiatives to best reflect the mission and agenda of the institution. As Anderson points out, “Acceptance, trust and mutual respect are at the heart of the reinvented museum’s organizational culture...In the reinvented museum, communication with the public creates a more responsive interchange of ideas supplanting the older approach” (Anderson, 1998).

According to a 2008 survey by the United States-based Institute of Museums and Library Services, museum and library websites are trusted far more than other sources, including government, commercial and individual websites (Griffiths, 2008). With the continued developments of digital technologies and the increasing demands for museums to better meet the needs of the community, develop new audiences and be more inclusive, the continued incorporation of digital technologies to educate and engage audiences both new and returning may help the museum become more community based without injuring the integrity of the museum’s image as a trusted source of information.

If a museum visitor can sift and sort through the plethora of exhibitions, objects and events before visiting the museum, bookmark and print out his/her itinerary or choose an already existing itinerary, this can create a more relaxed and directed experience for the museum visitor, alleviating the anxiety some people face when visiting the museum as they may feel lost and overwhelmed. The ability for a visitor to come into a museum with a directed purpose provides for an essential component in achieving a more meaningful museum experience. As museum professionals become more Web savvy and comfortable with digital technologies, the opportunity to incorporate gaming strategies into a museum visit may provide a more pleasurable experience for some as they have a specific quest or goal beyond a list of items. Providing places for engagement beyond the physical space and allowing for visitors to interpret and critique not only the objects at hand but the institutional interpretation of its collection becomes an act of empowerment by the museum as it provides visitors with the knowledge, ability and consent to engage in a critical dialogue (Roberts, 2004).

With social media applications such as Facebook, visitors may share their experiences, insights and opinions with others, virtually finding a like-minded community that maybe difficult to find in the physical world outside the museum. Embracing new technologies that reinforce a museum’s mission further strengthens the museum’s ability to be educator, forum and community center—qualities that reflect the current thinking about museum practice among many museum professionals.

In the 1990s, the fear or apprehension by some within the museum community that having a museum’s collection accessible online might somehow reduce visitor attendance has subsided as time, reason and statistics have shown that virtual images of objects have not been able to replace the museumgoers’ curiosity and desire for engagement with the physical objects. While some might also argue that museum Internet-based initiatives should be a low priority for funding during difficult economic times, they should not be neglected as museums can use their online presence to broaden their educational mission to not only better serve the onsite visitor with pre-visit material and post-visit engagement, but it can also provide a vehicle for the virtual visitor who may not be able to attend the museum due

to distance, disability and/or economic hardship to learn about a museum's collection via online learning opportunities.

The case studies cited in this essay provide examples of some of the many thoughtful uses of incorporating Internet-based technologies into the museum experience, embracing contemporary museum agendas that include inclusiveness, accessibility and transparency. However, a great deal of research and risk-taking is still necessary by museums to answer such questions as: How can museums employ questioning strategies to further engage the visitor using social media applications? How might museums employ video strategies to create more meaningful and engaging pre-visit and stand-alone educational material? And how can museums use Internet-based technologies to create more visceral experiences? While there may be no singular concrete answers to these complex questions, case studies or experiments can be employed to assess and reassess initiatives that attempt to tackle these questions so that museums may further fulfill and enhance their mission with media-based technologies.

Eilean Hooper-Greenhill writes, "Where the modernist museum was (and is) imagined as a building, the museum in the future may be imagined as a process or an experience. The post-museum will take, and is already beginning to take, many architectural forms. It is, however, not limited to its own walls, but moves as a set of process into the spaces, the concerns and the ambitions of communities... [T]he post-museum will negotiate responsiveness, encourage mutually nurturing partnerships, and celebrate diversity" (Hooper-Greenhill, 2000). If museums continue to recognize that Internet and Web technologies can provide a platform that may build and engage audiences in meaningful ways, they may be able to achieve their educational vision by both means and scope that may have never been imagined before.

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Seth Thompson is an educator and arts journalist involved in documenting and interpreting art, design and culture through print and online presentations. He is currently an Assistant Professor of Design at the American University of Sharjah in the United Arab Emirates. In addition, he has written on the arts for such magazines as *Afterimage*, *Art Calendar*, *Bidoun* and *Dialogue*. Thompson's documentaries, *Evolving Traditions: Artists Working in New Media* and *Outside the Box: New Cinematic Experiences* have aired on such television stations as PBS 45 & 49, Northeast, Ohio; KDOL Channel 18, Oakland, California; DUTV, Philadelphia, PA; and Triangle Television, Auckland, New Zealand. Thompson began his career at Harvestworks Digital Media Arts in New York City where he was the Business Manager and Education Director. In addition to teaching at The University of Akron and Cuyahoga Community College, he was a Contractual Artist/Lecturer with The Metropolitan Museum of Art and Associate Educator at the Akron Art Museum. Thompson holds a BFA in Studio Arts from the University of Colorado, an MA in Visual Arts Administration from New York University and an MFA in Visual Art from Vermont College.

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