Textiles, dress, and fashion museum website development: strategies and practices

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Abstract
Museums' use of the Internet, including social networking sites, blogs, and virtual exhibits, can provide new and customized learning opportunities for regular and infrequent visitors. These technologies have the potential to assist museums in making their collections more accessible online, increasing public awareness, and broadening the museums' audiences. To better understand the strategies and practices of textiles, dress, and fashion museum website development, 11 museum professionals were interviewed to understand how websites benefited their museums. Challenges and solutions to creating and maintaining online presence, as well as recommendations for textiles, dress, and fashion museum professionals to consider when making their museum and collection information accessible online, are provided.

Keywords
museum curatorship, museum websites, virtual exhibitions, online collections, textiles, dress, fashion

Disciplines
American Material Culture | Fashion Business | Fashion Design

Comments
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Textiles, dress, and fashion museum website development: Strategies and practices

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Abstract: Museums’ use of the Internet including social networking sites, blogs, and virtual exhibits can provide new and customized learning opportunities for both regular and infrequent visitors. These technologies have the potential to assist museums in making their collections accessible online, increasing public awareness, and broadening the museums’ audience. To better understand the strategies and practices of textiles, dress, and fashion museum website development, eleven professionals were interviewed to understand the ways in which websites benefited the museum. Challenges to creating and maintaining online presences and solutions to these challenges were presented. Recommendations for textiles, dress, and fashion museum professionals to consider when making their museum and collection information accessible online are provided.

Keywords: museum practices, website, strategies, textiles, dress, fashion
Introduction

With the increasing presence of the Internet in the everyday lives of millions of Americans, consumers have come to expect organizations, large and small, for profit and not-for-profit to maintain website presences (Chung, Wilkering and Johnstone 2010; Sabin 2011). Museums’ use of the Internet including social networking sites, blogs, and virtual exhibits can provide new and customized learning opportunities for both regular and infrequent visitors. These technologies have the potential to assist museums in making their collections accessible online, increasing public awareness, and broadening the museums’ audience (Lin and Cassidy 2008; Sauro 2009; Wallace 2001). Museums that take advantage of having an online presence have a unique opportunity to educate, engage, and entertain the public.

An online presence is essential to reaching museum visitors because museums that use Internet technology “will be rewarded not only with increased visitor traffic back to the museum’s homepage but also a positive view of the museum as a valued contributor to the Internet world of shared knowledge” (Howes 2007, 76). Particularly in today’s highly competitive marketplace, the development of a website for a museum functions not only as information provider, but also as a powerful marketing tool (Lin and Cassidy 2008). Maintaining a website offers museums an opportunity to brand themselves and reach museum visitors (Wallace 2001). Although Internet users primarily utilize the technology to retrieve information, they are “…increasingly looking for personal expression, membership in social groups, learning opportunities and meaning-making” (Howes 2007, 70). Honeysett (2007) warned that if museums fail to properly develop their online presence they risk having misinformation published by unauthorized individuals and organizations.
In the twenty-first century many museums have realized the importance of the Internet as a credible method of communicating information, educating the public, and forming a community of information-sharing. Sabin (2011) identified several reasons why museums should maintain a website on the Internet, including: the potential for instant worldwide publicity; fast and convenient communication with colleagues and the general public; the availability of on-line material not impacted by distance; and potential visitors who may not be able to appreciate a museums’ collection in any other way can be given a chance to do so. Further, historical collections can truly come alive online and do not have to be bounded and constrained as in an object-centered museum culture (Cameron and Kenderdine 2007).

The Internet offers museums an opportunity to create an environment in which virtual visitors are able to research, browse and sometimes play within the collection or an exhibit. Visitors to a museum website can do similar things as in a physical gallery setting: they can teach, socialize, shop, participate, and find entertainment (Olson 2011). The virtual museum provides useful information to visitors and also encourages them to reuse the website and may arouse their interest to visit the physical museum (Lin and Cassidy 2008; Sabin 2011). In a 2008 study conducted by the Institute of Museum and Library Services the authors found that “the amount of use of the Internet is positively correlated with the number of in-person visits to museums and has a positive effect on in-person visits to public libraries.”

This study provides knowledge that will help museums establish websites that are designed to meet the needs and missions of their museums. While some institutions such as the Metropolitan Museum of Art have incredibly large websites, others, particularly smaller in size struggle to effectively develop web content. Grove stated, “In an age where museums and history...
organizations seem to be competing more for the leisure time of the public, it is important for decision makers to have access to data about the Internet.” (Grove 2007, 5).

The examination of website development practices used by museum professionals, particularly in the textiles, dress, and fashion field is appropriate for three reasons: (1) Because of the rapid growth of the Internet and its’ increasing existence in the lives of individuals it is essential to study this form of communication, (2) To contribute to a larger body of knowledge concerned with making collections more accessible to visitors and potential visitors, and (3) To develop an understanding of the use of technological applications used by textiles, dress, and fashion museum, an increasingly important discipline. Many museums that include textiles, dress, and fashion are featuring these items in blockbuster exhibits to increase foot traffic, fundraise through corporate sponsorship, and reach a more diverse audience (Sauro 2009). Melchior suggested fashion museums popularity was due to the fact that the “visitors can easily engage with clothing. It is part of everyday life, popular culture, and entertainment” (2011, 3).

In order to better understand the website and content development practices that textiles, dress, and fashion museum professionals use when developing an online presence, the following research questions were addressed:

- What Internet tools were used by museum professionals interviewed?
- What challenges do museum professionals face when developing an online presence?
- What solutions have museum professionals found to address these challenges?

**Literature Review**

Museums encompass a variety of roles and purposes, including a repository of material culture, a public education institute, a venue for special events, and the housing of exhibitions for education and marketing purposes (Kotler and Kotler 2000). Within the past two decades,
museums have sought new marketing strategies to increase museum visitation. Websites offer museums an opportunity to brand themselves and educate, engage, and entertain museum visitors (Wallace 2001).

A challenge for many museums is that only students and faculty within a specific department have access to or knowledge of the collection (Marcketti et al. 2011). Although textiles, dress, and fashion museums provide great resources for students, scholars, and the public, they are often underutilized (Blanco 2010). The impetus for many museums to put information about their holdings online is the need to provide access to its collections globally. Particular obstacles many museums and collections face include lack of technological expertise and the funding to present the collection online (Saiki and Robbins 2008).

**Internet tools**

**Social networking sites**

Although people have long been able to engage in online discussion through the use of chat rooms and bulletin boards, MacArthur argued, “The difference now is the scale at which it is happening and the cascading network effects enabled by a new generation of collaborative online applications” (2007, 58). The ability of websites to allow visitors to make their own meaning from information rather than relying on principles imposed by others makes the content more retrievable, useful, and meaningful to the audience (MacArthur 2007). Through the use of social networks, museums are able to distribute information easily to the masses and allow online users to become more engaged with the content.

The author Joinson described social networking sites as

Typically provid[ing] users with a profile space, facilities for uploading content (e.g. photos, music), messaging in various forms and the ability to make connections with other people. These connections (or “friends”) are the core functionality of a social
network site although most also provide opportunities for communication, the forming of
groups, hosting of content and small applications (2008, 1027).

By using the technology of social networking sites, museums are able to make
connections and participate in dialogue with online visitors (MacArthur 2007). Museums that
develop a presence on social networking sites such as Facebook® are able to provide
“opportunities for visitors to learn about and interact with each other, as well as to feel a part of a
special group” (Howes 2007, 72). According to Elizabeth Merritt, founding director of the
American Association of Museums Center for the Future of Museums, “When used properly,
[social networking] is an inexpensive and accessible way for museums to engage with people.
They not only give museums new ways to do traditional functions like marketing and gathering
feedback, but open up other new opportunities” (Preston 2011).

Blogs are websites that contain online personal journals with reflections, comments, and
hyperlinks provided by the writer. Blogs include both museum-sanctioned pages and those
written about an institution by an outsider. Blogs often allow individuals besides the originating
author the opportunity to contribute to content to facilitate online collaboration. Museum blogs
often offer behind-the-scenes information about exhibit displays and collection content that
educates and entices the reader into learning more about the museum.

*Online collections*

Online collections provide Internet users the opportunity to explore objects and gain a
contextual understanding of clothing (Saiki and Robbins 2008). The online collection also has
the potential to provide “a much greater number of viewers the opportunity for a more in-depth
observation of an historic object” (Trzeciak et al. 2006). Goodrum and Martin (1999) identified
the need of putting Drexel University’s Historic Costume Collection online as bringing the
“Collection out of the closet so that it can be accessed by…students, scholars, designers and other interested individuals around the world.”

**Methods**

To better understand the strategies and practices of textiles, dress, and fashion museum website development, eleven professionals were interviewed. Due to limitations in access, language, and the limited number of historic dress focused institutions, textiles, dress, and fashion museum professionals were initially recruited using the *Clothing and textile collections in the United States: A Costume Society of America guide*, a comprehensive guide to historic textiles, dress, and fashion museum collections in the United States (Queen and Berger 2006). Preference was given to museums with websites listed in the *Guide*. Of the 38 museum professionals contacted via email and telephone 11 museums professionals participated due to mutual scheduling compliance. Semi-structured interviews allowed for a systematic approach to data collection. The use of probing questions throughout the interview process provided participants the opportunity to explore the museum’s website development, allowing for a richer level of conversation (Esterberg 2002; Kvale 1996).

Based on the initial review of literature regarding the use of the Internet by museums, the authors developed an interview schedule that contained forty-seven questions to address the: demographics of participants (i.e., What is your position? How long have you been in this position?), the mission of the organization (i.e., Can you talk about the mission of your institution? How does the museums website fit into your mission?), the collection/exhibit website (i.e., Do you want to have every object of the collection online or just selected pieces? What factors do you consider when placing objects online?), and the planning and development of textile and clothing museum websites (i.e., Who assists in the process of website
development? What Internet tools do you utilize on your museum website? The interview was initially conducted with a museum professional at Iowa State University (responses not included in the data analysis). Based on her suggestions, the authors refined the interview schedule before further data collection.

Due to distance, all of the interviews, which ranged from one to four hours in length, were conducted via telephone by the first author. With informants’ consent, the interviews were audio taped, transcribed, and sent to each informant to ensure accuracy in data analysis. After transcription, the two authors analyzed the data independently and then worked together to compare, discuss, and finalize emergent themes (Spiggle 1994). In theme analysis, themes that emerged from the interviews were pieced together to form a comprehensive picture of the collective experiences of the museum/collection employees. According to Leininger (1985, 60) themes are identified by “bringing together components or fragments of ideas or experiences, which often are meaningless when viewed alone.” While the sample size was small, the data analysis process revealed saturation in which concepts became redundant, with concepts thoroughly explained and reiterated by the interview participants (Corbin and Strauss 2008).

In addition to the interviews, an analysis of the museum websites at which the interviewees were employed was conducted using an instrument adapted from Saiki and Robbins (2008) and Williams (1997). The following categories were recorded by the researchers using a content analysis approach: online interaction (e.g Facebook®) online collection (e.g searchable database and browsable images), display technique (e.g mannequins and dress-forms), and other online features. In this study, content analysis was used to quantify the number of times certain Internet tools were used by museums and collections. According to Paoletti (1982), combining content analysis with traditional impressionistic research, such as in-depth interviews, offers the
advantages of both methods, while minimizing their disadvantages. Thus, conducting in-depth interviews with an analysis of the actual websites provided new understanding of how textiles, dress, and fashion museum professionals were establishing and maintaining an online presence. The research received university institutional review board approval. To ensure confidentiality and in keeping with the direct wishes of several participants, no museum or collection names were used and all informants were assigned pseudonyms prior to data analysis.

Results

Demographic information

Diverse job titles and responsibilities were represented: curators \((n=4)\), collections managers \((n=2)\), associate professors \((n=2)\), multimedia developers and managers \((n=2)\), and a marketing assistant \((n=1)\). Nine participants earned graduate degrees or were in pursuit of a graduate degree. Eight had backgrounds in fashion design, historical dress research, arts management, museum studies, textile conservation, or art history, while two had backgrounds in information systems or graphic design. Participants’ work experience ranged from three to 22 years. Eight participants were female, two were males. Two participants worked at the same institution. The institutions in which the participants worked included from 3,000 to 50,000 objects. They varied according to the regions outlined by the Costume Society of America: Midwest \((n=6)\), Northeast \((n=2)\), Western \((n=1)\), and Southwestern \((n=1)\). The collections were housed in different types of institutions: university collections or museums \((n=7)\) or stand-alone collections or museums in a larger museum institution \((n=3)\) (Table 1).

“Insert Table 1 About Here”

Internet tools used
The interviewees agreed that the museums’ websites helped to fulfill the mission of the physical establishment by presenting the collection online, informing and educating the audience, and providing access to the collection. Hollis, a curator stated, “It’s a way of presenting the collection to the public. It educates and increases public access.” Danielle, an associate professor added, “The website helps to achieve the general mission of the university because it reaches out beyond our students here at the university. It not only showcases the collection, but also serves as an education tool to outreach to others.” Amy, a collections manager stated, “It’s a great way of networking and getting your name out there. They’re valuable tools for marketing and promotion.” Rachel, a marketing assistant commented, “the website shares information with the public, obviously we present all of the sort of general museum information such as hours, but it also educates and exposes the broadest possible segment of the population [to the museum].” Tammy, a media manager offered, “The website definitely advances knowledge of fashion because it makes it accessible to more people.”

Of the ten museums examined for this study, the technologies utilized included links to their organization’s Twitter® page, YouTube® pages, and/or Facebook® pages (n=9), online videos and photographs of physical exhibits (n=6), links to external sources such as online fashion dictionaries or sponsor’s websites (n=6), and blogs (n=2) (Table 2).

“Insert Table 2 About Here”

While the majority of museums included links to the organization’s social media outlets such as Twitter® and Facebook®, most participants indicated that after establishing a page they rarely went back to update it or had forgotten about it. These pages were abandoned due to lack of time and staff, low priority, and inability to continuously update. Amy stated, Because there’s only one staff person and the rest are all student workers we really just don’t have the man power to tackle all those extra little things. At this point we’re at our
max storage capacity. We have a ton of things that need to be catalogued. These are much larger focuses at the time whether or not we have a page on Facebook®.

Rachel added, “I believe the museum has a Facebook® page but that no one is really currently updating that or using that for getting information out to the public.”

Museums and collections of textiles, dress, and fashion can create memories for the viewer in that visitors are “invited to become involved in museum exhibitions through sight and a remembered experience of the pleasure of touching and wearing what is on view” (Palmer, 2008, p. 32). Making collections available for viewing online allows museums to extend the visitor’s memory-making experience beyond the four walls of the museum setting. More than half of the institutions examined (n=6) included online features to make their collections accessible to a virtual audience. These participants agreed making objects available was important since their collections were used to teach, educate, and communicate to students, researchers, and to the general public. In addition to online videos or photographs of physical exhibits, five of the museums also included objects from their collections with browsable images and searchable databases.

Online videos or photographs of physical exhibits were highlighted as a key way to connect with the virtual audience. Angela, a museum curator, stated the online exhibits provided an opportunity to both connect with a larger geographical audience and highlight key objects from the collection. Following First Lady Michelle Obama’s wearing of fashion designer Isabel Toledo, Angela discussed the “skyrocketing of hits” due to her museum’s website content regarding the designer. She stated this opportunity exposed “the world, not just apparel people” to her institution. Even when planning physical exhibits, Angela considered the museum’s website. She stated, “…a few times I’ve actually selected artifacts because I knew before the exhibition we had this gap in our website. I’m trying to cover a lot of ground with as little work
as I can.” Angela was particularly careful to select objects that represented the breadth and depth of her collection, since “Students and other institutions are basically shopping through the web. They ask: can we borrow the dress from this webpage? This is interesting because we have so much more but what they see on the web they know we have.”

The use of online examples of physical exhibits was also viewed as important because they created a living history document of a temporary event and provided opportunities for relationships between visitors and the museum. Tammy stated, “Costume and textiles are inherently fragile because they’re so susceptible to light and environmental damage. Online exhibits mean people can go back and reference a good deal of the content from the physical exhibition.” Amy commented that due to online examples of physical exhibits, designers whose works have been featured have called and provided more detailed background information to the objects, a benefit to future researchers and students. Due to the online collections, Amy stated students and researchers often called to make appointments to view objects. This initial preparatory work completed by visitors saved staff time and effort in the tracking down of specific collection holdings.

While six of the museums featured online content of physical exhibits, only one institution added another layer of content and social interaction to this feature. Tammy indicated that while she initially included brochure information and label copy on the website, her institution now focused on “creating something that’s extra on top of the exhibitions.” She explained that this allowed in-person visitors the opportunity to learn and explore more information on the website. Tammy often posted questions to the website that visitors could respond to in either visual or written form. This extra layer was viewed as important to Tammy because,
Museums have this idea that they are holders of authority and have to maintain a certain educational superiority. Visitors also want to trust that the information they’re getting is reliable and trustworthy, but on the other hand there are so many other ways of learning now and that it isn’t just from us providing this authoritative informational voice and content it is also about eliciting interaction so that people are engaged with the material.

Five of the ten institutions featured objects from their collections with browsable images and searchable databases. This was viewed as a vital aspect of garment conservation. Karen, an associate professor and Tammy, a media manager, both noted digitizing objects and publishing the images online helped with the preservation of the physical garments. Karen stated, “By allowing many viewers to experience the object without the stress of a physical exhibition is beneficial.” Tammy added, “Historical costume and textiles are extremely fragile and sometimes rare so photographing them and putting them online definitely preserves that object. It can live longer.”

Several of the participants indicated that they only wished to feature “best examples” of their collections online. Rachel commented, “We find it important to display the noteworthy or important pieces from our collection because these images are primarily used to reveal to the public and other professionals and students the scope of the collection that we have.” Tammy said her institution “cherry picked what we think are some of the most iconic pieces of fashion highlighting the best pieces that are simultaneously the most iconic pieces of fashion and what items in terms have moved fashion forward historically.” Similarly, Danielle chose “to highlight a few key pieces to show the depth of the collection - to show something special.” Other museum employees, such as curators Hollis, Peter, and Gabrielle expressed the desire to “get everything out on the web” regardless of condition of object. All informants, however, stated the importance of ensuring the objects were presented in a professional manner. According to Tammy,

We’re really trying to show people that we are a world class museum of fashion. It is not our goal to somehow put web component up that would just feed a bunch of images to
the web randomly when those objects haven’t been photographed properly or catalogued properly…it wouldn’t serve our audience and it wouldn’t meet our goals and objectives.

The informants identified the method of making collections accessible online was as follows: objects were selected, they were then placed on dress forms, photographed and saved in raw format, and then the photos were edited and uploaded as low resolution jpeg files to the website. The people involved in completing the digitization process varied widely at the different institutions. Tammy shared, “conservation when it comes to dressing and mounting a garment, curatorial for writing content, the director’s office for approval and for editing, then there is the office of college relations which oversees what we do and gives a stamp of approval.” Hollis explained the many departments involved in website development. She stated, “marketing, public relations department, the webmaster, then there’s a technology department, and of course the curator and actual collections people.” Rachel described the process as a collaboration between curator and photographer, “The photographer and the curator will stand there and they’ll take some photos, they put them on the computer, they’ll be like okay I think we need to rotate it a little bit to catch the characteristics of the line of the dress or the cut or a particular detail.” Amy stated the informality of the process,

We have a graduate student who is a photographer and basically she comes in twice a week and one of our student workers puts an outfit on a dress-form, she photographs it and while she photographs it someone is undressing the dress-form and they switch it out. At the end of the day she Photoshop’s it and gets it to look nice and then we upload it to Past Perfect and then it’s pulled straight from Past Perfect to the web.

In addition to basic still images, four of the five websites included zoom or enlargement features as part of making their collections available online. These features were said to be vital because, “Fashion is a three dimensional medium and having multiple views really gives you the best idea of what the garment looks like.” Angela described taking multiple photographs of an object: the front, side, back, different side views, and detail shots “so people can get closer to the
textiles and things that are of interest in terms of the design.” Vanessa, a collections manager provided an example to highlight the importance of the zoom feature to collections of textiles, dress, and fashion. She stated, “On one dress we highlighted the sleeves which if you’re doing a full length shot you probably wouldn’t notice. [With the enlargement feature] you notice the two different kinds of satin, the brocade of the dress itself and the lace on the sleeves and the detailing is what makes this dress special.”

Links to external websites were viewed as important channels to educating the public. Angela described the beginning of her website development as born out of frustration; “I started [the external links feature] because I was answering the same questions over and over again….People didn’t quite know what to ask for which is why I started this dictionary of costume thinking it would help them articulate their needs.” The external links were viewed as a community service to the museum’s website visitors. Karen stated while the general information on the website served as good public relations, the “extras” such as definitions of historic dress terms went “a little bit further than just marketing” to educating the audience.

One of the two institutions with blogs hired a half-time employee to work with that aspect of the website. Peter stated while the website of the museum contained “tombstone information,” the hired employee focused on blog discussions regarding new collection acquisitions, upcoming exhibitions, current exhibitions, and other “contemporary, what’s going on” information. Henry, a multimedia developer, stated the blog posts allowed his institution to feature multimedia content related to the collection and museum. Because the blog was frequently referenced in other blogs, he viewed it as a “great lateral marketing tool.”

Challenges and suggested solutions
Participants identified two major challenges of developing an online presence: the problem of protecting the intellectual property of the information they displayed online and the time and resource constraints of updating and maintaining online information.

Participants were concerned about losing control of images once they were published on the museum website. Specifically, Rachel expressed her apprehension:

Once information is put on the web you lose control over it. Images can show up in places that we would not consider appropriate. The nature of putting an image online and in a year it could be on a hundred different websites or linked to places. I mean once it gets out there, and becomes available through Google search, the information spreads, and it becomes out of our reach.

In order to protect content published on museums’ websites being taken without the museum’s consent or without acknowledgement of the institution, the respondents discussed different methods to limit and restrict online users from “copying and pasting” images without the museums’ consent. Most of the museums and collections included a copyright notice on their websites; however participants did not believe this truly prevented copying of information. Low resolution jpegs were another frequently mentioned method to discouraging copying. Rachel suggested, “Online images are put up with a low resolution that’s an onscreen resolution. It’ll look great on your screen but if you try to take it…it wouldn’t look good at all.” Henry commented, “We decrease the resolution significantly - we do not provide high resolution version of images online.” Peter’s institution used watermarks across images to prevent unauthorized copying. They also contacted people who in his words “stole” images and asked them to remove them from their websites. Further, Peter’s institution did not allow photography in their galleries to prevent individuals from taking and posting their own photographs to the Internet. Peter acknowledged as much as his institution tried to prevent individuals from copying information from their website, it was largely “fighting against the tide.” Somewhat resigned,
Tammy stated the inevitability of online information being taken without consent and without rightful acknowledgement paid to the original institution: “If people want your stuff they’ll use it. We try to be open about the material out there…..we’re going to take these 500 pictures and they’re just going to be out there in the world…and just sort of be okay with that.”

Museum professionals further identified the challenge of constantly needing to update the museum website when they were pressed for time. With frustration, Peter stated,

You create this beautiful website because you have all the impetus to do that and then it just sits there because you don’t have the staff or the inclination to keep updating it constantly and keep that momentum going. I would love to have an interface, a Q and A with researchers or just people visiting, but you really need the ability to keep that up. It is very difficult and time consuming.

Angela also expressed disappointment with the lag in time spent between the opening of a physical exhibit and the presence of the online exhibit. She stated,

Whatever I have time to do get’s done. If I’m in the very last minute opening the exhibition then the web component doesn’t come up until I have time to do it…There are many, many times that I wish I had more time. They’re award winning exhibitions that we’ve done, but then websites really crummy because I spent so much time on the catalogue, on the photography, on the exhibition and then once the exhibition opens I’m already late doing another exhibition. So I don’t have the luxury of really dwelling on the web. I wish I did but I don’t.

Henry talked about the constant maintenance of updating timely information, adding new components to the website, and making sure the web servers were running properly. Because of limitations on his time, updates and changes were more “reactive” than proactive. Tammy cited the constantly changing technologies of the Internet as a significant challenge. Her institution struggled with selecting an online database management system because

Maybe we wouldn’t have the resources down the line to update it if browsers changed and all of a sudden what we developed couldn’t be read by a browser or things getting corrupted. Longevity is always a concern with digital projects. What are you going to do in ten years when things are really different from how they are now? It’s kind of a wild west right now. There’s nothing that’s sort of standardized that we know we’ll be using and museums are really cautious institutions so those are big concerns.
Tammy further indicated content updates were a challenge due to the ephemeral nature of the fashion industry: “The challenge will be to keep content current as designers move from one house to another, die, or things happen in their lives that need to be kept up-to-date.”

Solutions to not having the time or resources to update online information included practical means of easing workloads. Since staff time was limited, Karen discussed how the website was developed concurrently as the physical exhibition was developed and that all objects were photographed during the installation process and then put online soon following the physical exhibit’s opening. She matter-of-factly stated, “When we have funding, maintenance is a daily procedure of updating, uploading and testing. When we don’t it is on an as needs basis and when I have the spare time to put into it.” Since Gabrielle’s staff included her, a part time website manager, and limited graduate student or volunteer help, she decided to focus on Facebook®, a social networking tool that she was familiar with and found effective for informing different and younger audiences. She stated, “We do not have the resources, namely people to invest in monitoring other tools such as Twitter, so, I have not found a use for them.”

Several of the participants stated resolve with their websites. Tammy stated,

There are so many browsers out there one of the big challenges is how to design for the variety of computer platforms, the variety of screen resolutions. You can only do your best; your website is not going to be accessible to everybody. It’s just not and at a certain point you do your best and then you throw your hands up and then you go I hope nobody complains!

**Discussion**

Increasingly, the world is becoming a wired village. With budget cuts and intense competition for people’s time, the effective use of the Internet can help museums increase visitors. Museums that implement Internet technology are more able to readily meet the many new ways people conduct their lives, whether it be for research, business, planning vacations, or
for education and entertainment. Museums that harness the power of the Internet including social network sites, virtual exhibits, and making their collections accessible online are more able to reach a broader and more diverse audience. Honeysett (2007, 153) urged museums to become digital and embrace Internet technology by stating, “Museums are here for the good of the public and the public is online. One of the most important things to consider is our future audience and their expectations. Investing in the web is a necessary long-term investment for the museum community for sustainability.”

Although most museum professionals interviewed in this study acknowledged the Internet as a method to promote its mission, reach new audiences and improve public education, there seemed to be no standard way to accomplish these tasks. The recommendations below present factors for museum professionals to consider when creating their museum and collection presence. Some of the recommendations are general in nature and could be applied to most museum disciplines. Several of the recommendations are specific to textiles, dress, and fashion museum and collection professionals.

Museum and collection personnel must consider the mission, goals and objectives of their museums and collections in order to best utilize Internet tools to achieve these goals. For example, if the goal of the museum or collection is to enhance public access to collection holdings, the museum professionals may want to concentrate their time, resources, and energies to development and maintenance of an online database. Currently, there are several options for creating searchable online databases. Several of the participants in this study mentioned information entered into their database systems, such as PastPerfect enabled them to upload information to the Internet. Another participant stated her university’s library maintained the searchable, online database for her collection and even kept statistics as to the databases’ use. If
the goal of the museum or collection is enhancing student involvement, perhaps the website could be “built” to highlight opportunities for students including gallery curation, research assistantships, and independent study and honors projects utilizing collection holdings.

Internet tools such as Twitter®, Facebook®, and blogs require near continuous upkeep. Museum professionals should select the specific networks that they have the time and resources to maintain. However, as Internet networks become more commonplace and expected, particularly among younger audience members, museum professionals must consider their importance in attracting new audiences. According to marketing experts, to effectively use technologies such as Twitter® and Facebook® one must post updates, photos, upcoming events, as well as questions for followers on a daily, rather than weekly or monthly basis or else the virtual audience becomes disinterested (Petrecca 2012). Interaction with users, such as posting intriguing questions, engaging in conversations, and asking for feedback enables virtual viewers to connect and make meaning with the museum or collection. Many of the museum professionals mentioned working with several other colleagues either in their own departments or across their institutions. Perhaps these colleagues could work together in the creation of a Twitter®, Facebook®, or blog account. In this manner, participants would lessen their individual workloads, leverage their marketing by being introduced to a slightly different audience, as well as create a collaborative working environment. While several of the participants mentioned employing undergraduate and graduate assistants who worked with the collections, none of the participants mentioned having these students update social media for the museum. While supervision would certainly be required to ensure student-posted information was accurate and consistent with the museums’ message and mission, student assistance in creating Twitter®,
Facebook®, or blog updates may provide a fresh perspective and connect the museum to a broader audience.

Because textiles, dress, and fashion objects are fragile and easily harmed by harsh lighting and other environmental factors such as humidity and temperature, online databases and virtual exhibits provide an opportunity to display objects to the public without causing unnecessary stress to the object. Since time and resources are limiting factors, yet, all participants stated the importance of having objects presented online; the researchers advise textiles, dress, and fashion museum and collection professionals to select key pieces that exemplify the scope of their collections. Object images should be photographed in a professional manner – clear pictures, easy to read, and consistently presented. This was particularly important to several participants who complained that textiles, dress, and fashion museums are all too often maltreated as frivolous. Textile and garment objects should include accurate copy information including date object was created, designer and manufacturer, and if possible, how the object is representative of the broader museum collection. Perhaps the easiest method of selecting and posting object images would be choosing pieces already displayed in exhibits. In this way, the object research and the digitization of the objects are already completed as part of the exhibit research and installation process. Ideally, the websites would allow a zoom or enlargement feature for viewers to closely examine details of the garments.

The updating of online databases and exhibits often requires a collaborative effort of many museum personnel. Museum professionals must remain cognizant of others within their organization that may be beneficial to the website process. For example, one of the participants who worked in a university setting stated the university center for excellence in teaching routinely employed student workers to assist faculty in website development. While this
assistance was usually limited to class websites, the student worker was able to update the online database free of charge with minimal maintenance needs.

In the process of posting information to the website, textile and clothing museum professionals must consider how best to limit copyright infringement of information. Most of the participants in this study utilized low resolution images when posting to the website, which allowed others to view the objects without misappropriating them. Other types of prevention of information included watermarks placed over images and the curators and collection managers contacting of those who used images without permission. Since there are no sure-fire ways of preventing the “copying and pasting” of information, museums and collections could consider making a limited number of images available “free” for the public and devising a system in which others would pay for the use of object images. This could be similar to a subscription-based system utilized by fashion and style trend forecasting sites in which members pay a monthly or annual fee for use of images and information.

Because the analysis of the textiles, dress, and fashion museum and collection websites showed such varied approaches to website development, it is suggested that professionals within this discipline increase their communication to ascertain best practices for website development. At textiles, dress, and fashion focused conferences, round table discussions, panels, and presentations by website development experts familiar with the fragile nature of historic textiles, dress, and fashion could provide information as to successful strategies to website development. Even at larger museum conferences, it is suggested that those employees who work with textiles, dress, and fashion objects seek one another out to provide best practices and strategies for promoting, and helping preserve their collections.

Conclusions
All of the participants mentioned challenges to website development and maintenance. These challenges included lack of time in developing in-person exhibits, let alone virtual exhibits, fear of information being plagiarized, and technology becoming outdated. Even with these challenges, all participants mentioned the benefits and importance of using the Internet as a tool to promote, educate, and entertain the visitor. Particularly for textiles, dress, and fashion focused institutions, websites can provide detailed information about collection holdings and display images of fragile objects that researchers and students may never, otherwise, have the opportunity to view. In stating the opportunities the Internet had given his institution, Henry stated, “Our audience before web development was older, about 50 years and up. We’ve been trying to reach a more diverse audience in terms of age, and ethnicity, and race. These tools have helped us work towards those goals.” Vanessa emphatically declared,

The advantages are just limitless in terms of the accessibility, and the reach of the message you’re trying to convey. Even if there are people who will never get to see the actual physical exhibition they still get to see kind of what we’re trying to do, and some of the products that we’re coming up with. I cannot think of any disadvantages to the Museum’s use of the web.

Future researchers may wish to interview additional museum professionals to better understand the use of new utilities including Pinterest and FourSquare to attract viewers to their institutions. Other research could explore website visitors’ perceptions of different museum and collection websites to better understand the types of features which entice online audiences to repeatedly visit website pages and take the time to make in-person visits to the institution.
References


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* Pseudonyms used throughout the manuscript.
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