

Augmenting the Museum: Innovative (and Subversive) Trends of Mobile Apps in Museum Contexts



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Since their introduction in 2008, mobile augmented reality browser apps have radically reshaped the way some museum professionals think about the museum visitor experience. Broadly defined, these apps use GPS to transform the world into a space for exhibiting and contextualizing objects; collections can be geo-tagged to an exact location, allowing smart phone users to experience the physical environment around them overlaid with digital content. Furthermore, many of these apps, such as Layar, provide free platforms for generating and managing content, and thus stand as a feasible option for museums faced with budget cuts and overall lack of resources.

In this presentation I am going to focus on examples of apps that have been taken up in the museum world that help solve three areas of concern relevant to the goals of museums in contemporary society. These areas are access to collections, contextualization of objects, and participatory visitor experiences.

Museum of London: *Streetmuseum*



Augmented reality apps can change the way museums allow access to collections. Only a small percentage of museum collections can be physically displayed at once—I think most museums estimate they have between 1% and 10% of their objects on view at a time. Augmented reality apps provide a platform for museums to show more of their collections in a way that is more engaging than simply digitizing a collection and putting it online. Museum of London has set a great example with their augmented reality app *Streetmuseum*. *Streetmuseum* works by enabling the phone's GPS system, which picks up sites close to the user within a certain radius within London. The user then clicks on one of the points and an image from the Museum of London's collection appears. Another tap on the touch screen and the user gets information about the piece from the collection such as the artist, year of the work, and other information about the site.



The user then has the option to click on “3D View,” a feature which overlays the historical image over a present day street scene using the phone’s camera. Not only does this app essentially bring unexhibited objects into the public’s view, but it also successfully extends the museum visit beyond the museum’s walls.

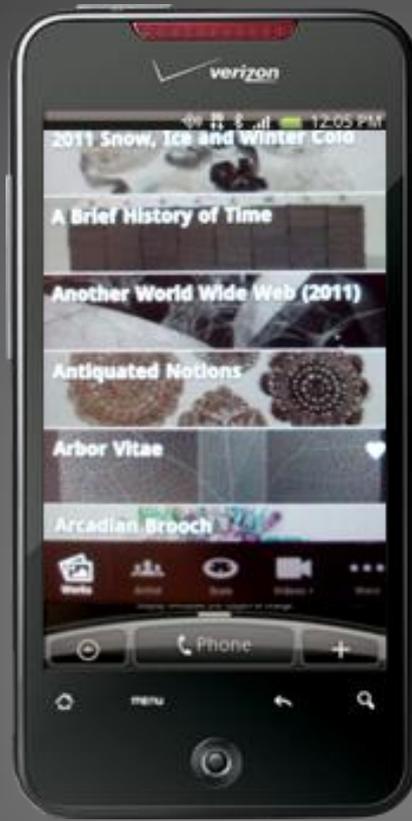
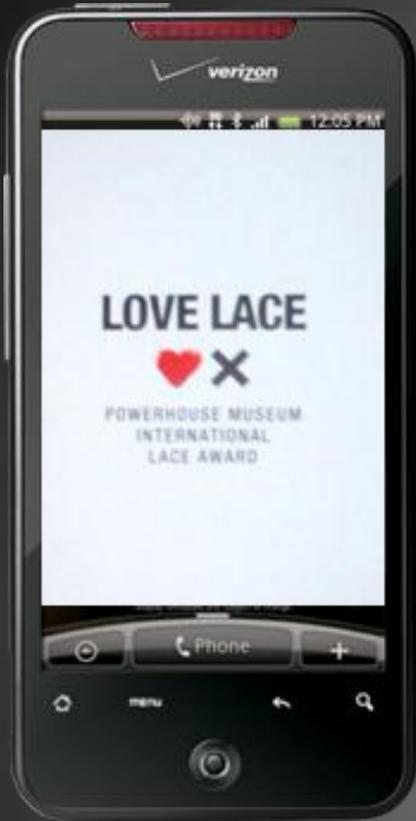
The Warhol Museum: Layaar



The Warhol Museum in Pittsburgh has developed a similar augmented reality project using Layaar. The Layaar Reality Browser is an augmented reality app that situates a user within his or her surroundings by displaying real time digital information on top of reality. This digital information is called a 'layer'. Layaar is a free app and individual layers can be created by anyone and then searched and downloaded by app users. The Warhol Museum's layer allows users to view locations that were important in Andy Warhol's life and work, overlaid in real-time images from the phone's camera. Information and photographs from the museum's collection, prepared by the educators at the Warhol Museum, can be found in locations in both in Pittsburgh and New York City.

The second issue that augmented reality apps help solve is contextualization of objects. The traditional means of contextualizing objects in museums have long been the subject of criticism, in part because of the necessarily short, generalized, and passive nature of standard mediums such as the wall label, audio guide, and even docent tours. Mobile augmented reality apps can be an effective medium for addressing multiple audiences—allowing visitors to customize their museum visit based on their own interests or age level.

Powerhouse Museum: Love Lace



The Powerhouse Museum in Sydney, Australia (a museum dedicated to science and design) developed an augmented reality app for their exhibition *Love Lace*. The exhibition features lace works by 134 artists from around the world. With exhibition content as intricate and captivating as lace, you can imagine that the curators and educators were hesitant to clutter the walls with a lot of supplemental labels and materials. So the museum developed an app that allows visitors to view special context such as artist statements, behind-the-scenes videos, interviews, and additional images of the works in the exhibition. The app can either be used by scrolling through an image list of works or a list of artist's names or by scanning Quick Response codes (known as QR codes) throughout the exhibition. The option to browse without having to scan QR codes is a good feature because it allows someone to revisit the content of the exhibition after leaving the museum or for people who won't have the opportunity to visit the exhibition in person.

The Getty Villa : Tour



The Getty Villa also has an app available for tours that are catered toward different audiences. Although this is not strictly an augmented reality app, I felt it was worth mentioning since it can be a model for other institutions to develop augmented reality projects that serve the same purpose. With this app, the visitor has the option of which type of tour they'd like to be guided through. Some options are a family tour or a highlights tour for those who don't have a lot of time. The tours are also available in Spanish.

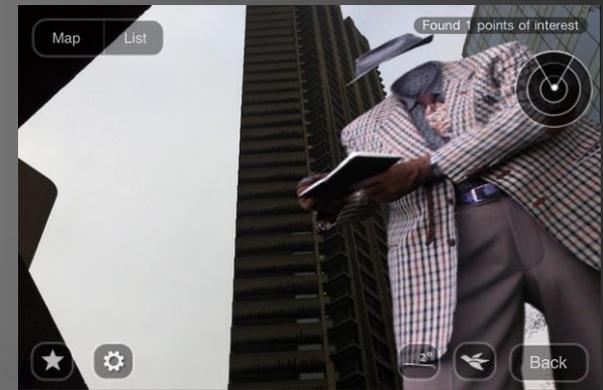
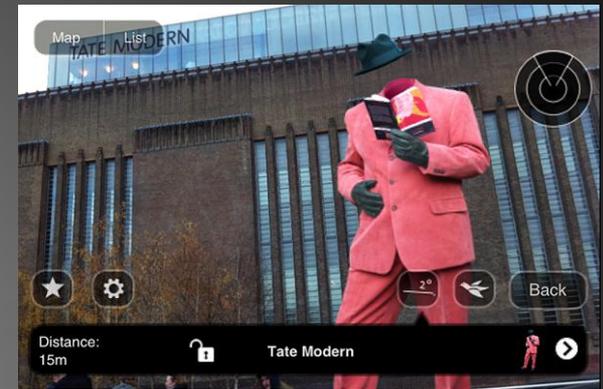
In his book *Identity and the Museum Visitor Experience*, John Falk identifies five types of museum visitor identities: facilitators, rechargers, experience seekers, hobbyists/professionals, and explorers. He puts forth some ideas on how to attract all of the different visitor identities and then fulfill their needs once they are in the museum. However, he recognizes that it is difficult to put all of his suggestions into use without giving the visitor an information overload. Developing an augmented reality project that allows visitors to customize their visit could serve all the different visitor identities without each identity's experience interfering with the others'. For instance, the project could start with the prompt "Why are you here today?" and thus enable visitors to customize the content they experience: A facilitating parent might like a family tour and interactive activities; rechargers could enjoy music selections paired with certain works in the collection; experience seekers could experience a highlights of the collection tour; hobbyists/professionals could benefit from audio and video interviews with curators or suggestions for further reading; and a scavenger hunt could be designed for explorers.

A t t h e M o M A , N e w Y o r k : W e A R i n M o M A



Augmented reality projects also provide an opportunity for participatory visitor experiences. In October 2010, an augmented reality experimentalist and a media artist organized an augmented reality exhibition called *We are AR at MoMA* at the Museum of Modern Art in New York without MoMA's consent or knowledge. The exhibition was only visible to those using the smartphone application Layar, and allowed users to see additional works created by artists working in digital media from around the world. In this case, the exhibit was met with enthusiasm from the MoMA staff because it is in direct line with the MoMA's mission to create a dialogue about Modern and Contemporary Art with their visitors.

London: *The Invisible Artist*



However, other uses of augmented reality apps have the potential to subvert, undermine, and jeopardize the museum's mission. Frustrated with the exclusivity of museums and galleries, University of Derby professor John Goto developed *The Invisible Artist* using the Layar app that guides visitors through what he sees as the exclusionary politics of London's contemporary art scene. At ten different locations throughout London, including the Institute of Contemporary Arts, The Royal Academy of Arts, and the Tate Modern, the Invisible Artist appears, complaining about the bureaucracy and lack of diversity in London's contemporary art museums and galleries. However, this AR project opens up a dialogue between museums and the public by questioning the authority of museums and who decides what goes in them.

Whether museums like it or not, these apps are everywhere and some allow visitors to intervene into the curated space by posting their own digital content among the objects in a museum. Ultimately, the examples covered in this presentation suggest that more museums should educate themselves about the potential for these apps to enhance and extend the museum visitor experience. Augmented reality content can be developed and hosted using free apps such as Layar and technologies such as QR codes. Perhaps most importantly, all this can now be done without any knowledge of computer programming. At the same time, museums need to be aware of how these technologies can become a source of potential controversy and conflict and be prepared to respond.