City Space
Architecture

Visitors in immersive museum spaces and Instagram: self, place-making, and play

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Abstract
Visitors to museums are increasingly drawn to posting images online that document and reflect their experience. Instagram, as a social media platform, has a proliferating presence in this context. Do different kinds of public spaces within the museum motivate people to share particular types of posts? What kind of posts do visitors generate from digitally immersive spaces with an interactive focus? These questions were unpacked through an exploration of data generated from a digitally immersive, interactive public space – the Immersion Room at the Cooper Hewitt, Smithsonian Design Museum in New York. Findings indicate that constructs of self, place-making, and play constitute critical components of what occurs, and these aspects are amplified in immersive spaces leaving digital traces within social media. I argue that the intersection of immersive digital environments and visual social media platforms such as Instagram offer a moment to play with and subtlety reconstruct the self with place being a significant contextual frame for this activity. Implications extend and challenge perceptions and the role of both museums as public spaces and the ways in which visual forms of social media intersect with spaces and the people who use them.

Keywords: social media, visual research, museums, immersive environments, place, play

Introduction

On entering a museum these days one will most likely encounter fellow visitors wielding mobile digital devices such as smart phones and tablets, as they move around various spaces. These devices are being used to document, record, and share their experiences (Budge, 2017; Budge & Burness, 2018; Humphreys, 2015). Such activity is increasingly integrated into the contemporary museum visit experience, and much of this involves the social media application, Instagram.

As a photography-based smart phone application that was launched in 2010, Instagram has gained immense popularity amongst the general population since April 2012 (Ferrara, Interdonato & Tagarelli, 2014). A social media application allowing for both still photography and video, Instagram commands increasing power and attracts much attention across a range of industries and sectors due to its significant uptake amongst the population in general. To illustrate this point, Hilary Milnes (2016), describes how the use of Instagram now drives decision making in the fashion industry.

Museums have been attempting to address engagement through experimenting with immersive spaces for some time, however, the focus has mostly been on design of such spaces. Less attention, if any, has been given to what the public is communicating through their social media accounts in these spaces (Russo, Watkins, Kelly, & Chan, 2006), and how this might account for engagement, self, and meaning-making. Traditionally, museums have concentrated efforts on collecting, interpreting and presenting material culture (Bennett, 1995; Dudley, 2010; Hooper-Greenhill, 1992/2003), with few opportunities for the visitor to play with, shape and construct meaning of what is encountered, and in turn, their own identity. In recent times this has begun to change, with many museums seeking opportunities to extend their offering beyond the expected (Sparacino, 2004).

Since the digital revolution of the late twentieth century, museums have been primarily concerned with using social media to broadcast their information and activity, and more recently engaging in a dialogue with visitors through museum social media channels (Russo et al., 2006; Russo, Watkins, Kelly & Chan, 2008). Arguments have been mounting for some time about the need to listen to and observe how visitors are communicating experiences through their own social media accounts in order to understand engagement and what might be considered meaningful for the museum visitor (Budge, 2017; Budge & Burness, 2018; Russo et al., 2008). To do so places the museum in an anthropological role as observer of people and culture.

Museums are increasingly interested in audiences and the ways in which they interact with their content. Engagement, while seemingly a buzzword in many quarters of public and private enterprise, has become an important marker of value, especially in contexts involving customers, employees, students or the public (see for example, Jaakkola & Alexander, 2014). Engagement in this context is understood broadly to encompass not only the 'quality of user experience characterized by attributes of challenge, positive affect, endurability, aesthetic and sensory appeal, attention, feedback, variety/novelty, interactivity, and perceived user control' (O'Brien & Toms, 2008: 938), but also the physical world surrounding the digital, and the ways in which both realms overlap and constitute a broad ecology of engagement, or what Adriana de Souza e Silva (2006) calls hybrid spaces.

Communication scholar, Erving Goffman (1959), made a compelling argument about the need to research the way in which we communicate, even the seemingly ordinary and

mundane. The position of self in research was of pivotal interest to Goffman and those who drew on his thinking in later years. For Goffman, understanding ordinary interactions about everyday communication can reveal much about the human condition, and why we do the things that we do. He argued that the way in which our social selves interact with others is inextricably linked to the relationships that connect people to the social world (Winkin & Leeds-Hurwitz, 2013). The construction of social reality was, in his view, an important field of research, as it has been for theorist Judith Butler (2008). As we near the end of the second decade of the twenty-first century where much communication between individuals now occurs in the digital realm, the need to understand such interactions is as urgent as ever and underpins my rationale to study social media interactions posted by museum visitors.

In addition, Gillian Rose (2012) has argued for more research that takes into account the audience 'eye', as few studies in the museum context have done this to date. The rationale for the research outlined in this article attends to this call for several reasons. Firstly, not enough is known about Instagram, engagement and the cultural sector, yet it is widely used. Secondly, photography, especially when shared publicly, can tell us much about culture, society, and ourselves. Lastly, digital screen-based culture now plays a dominant role in our lives (Australian Directors Guild, 2011; Evans & Giroux, 2015; Mioli, 2015). Much learning can be derived from this behaviour to inform broader understandings of people, places and society – all of which concern museums. However, research into Instagram imagery and practices in the museum context is new and emerging. There is still much to know that can be used to inform museum design and planning, with the potential for engaging with audiences in new ways.

In the following sections I highlight the literatures surrounding place-making as a theoretical construct that contributes to thinking about this topic. It provides a theoretical framework for interpretation and to develop new understandings about how museum visitors document and create meaning of their experience in museum spaces through the visual medium of Instagram.

Place-making and Instagram

The design and use of space within a museum is varied. Mark Wigley (2016) argues that museums choreograph themselves for discursive and immersive experiences, engaging the brain and the body respectively. Furthermore, he suggests that immersive museum experiences, such as exhibitions or installations, create spaces where the 'subject/object spacing' is lost because of their multisensory nature (2016: 2). I argue that this is communicated through visitor Instagram posts of such spaces, and through this article I will interrogate data to evidence this position.

The idea of place is not simple. Tim Cresswell argues that its complexity (2004: 50) has been discussed by theorists in relation to the act of both pausing (Tuan, 1977) and movement (see for example, Massey 1994, 2005). When considering the use of mobile devices such as phones, and the way people use these in cultural institutions through applications like Instagram, it requires conceptualising place-making within the parameters of both pause and movement.

As Jordan Frith and Jason Kalin in their study about place-making and digital memory argue, mobilities research 'sheds light on how different types of movement enabled by spaces can often come to define how people experience place as a dynamic entity or

process' (2016: 46). For this reason, thinking drawn from the field of mobilities about movement and place is critical to understanding what is occurring in immersive spaces within museums when people are photographing and sharing their experiences on Instagram. As Frith and Kalin along with other scholars (see for example, Brouwer & Mulder, 2003; Gane & Beer, 2008; Humphreys, 2015) have highlighted such everyday practices are part of the growing process of archiving our experiences in the digital realm. As these researchers and others have argued, this is not a 'catch all' process, but rather one of intentional selection with some images ignored and not shared, while others are chosen for the individually owned but publicly shared (in many cases) digital archive. Acts of place-making occur within this process, both in a virtual and real life physical sense. Image-based social media platforms, such as Instagram, appear to play a strong role in fostering place-making as the research outlined in this article will show. The intersection between a digital platform, peoples' behaviour, and the physical space in which this originally occurs is of particular interest in the research I undertook because to date, the literature does not reflect how these domains come together and inform each other. The notion of place-making that occurs in the context of social media applications is limited in research conducted so far. Therefore, the broad aim in the research explored here is to understand how certain types of spaces in museums (and elsewhere) might create an environment that fosters and legitimates particular behaviour that is then conveyed through Instagram images of museum visitors. The relationship with place-making is integral to this activity.

Previous studies conducted exploring the content of museum visitor Instagram posts (Budge, 2017; Budge & Burness, 2018; Carah, 2014; Suess, 2014), have highlighted the way in which exhibition material has been of central focus to the posts shared on Instagram. Self-portraiture, or 'selfies' as they are commonly known, were a minority of posts in a study of one exhibition (Budge, 2017); and a small proportion of a posts in a much larger study conducted in another museum which considered all posts shared on Instagram for a seven-day period (Budge & Burness, 2018). In Adam Suess' study of art gallery visitors and Instagram he found that visitors' usage of Instagram is 'connected to their aesthetic experience' (2014: 62) of the gallery. Carah's study of social media use in music festivals, involving platforms such as Facebook and Instagram, argued that 'images work as a device for registering relationships and experiences from material cultural spaces on the databases of social media' (2014: 4).

Yet, my informal observation is that other types of spaces in museums, such as those that are digitally immersive and interactive in character, tend to generate posts of an entirely different nature and are more likely to include people. In this article I define 'digitally immersive spaces' as ones that 'perceptually surround the user' drawing on Schnall and colleagues' definition (Schnall, Hedge & Weaver, 2012: 2). To clarify, the Immersion Room, as the site of the research shared in this article, is not an immersive *virtual* environment such as that used in virtual reality games like the widely experienced Pokemon Go phenomenon that made a mark on the world in 2016. In the Immersion Room, visitors do not immerse themselves in another world but are completely surrounded by images generated digitally, and thus create a spatial environment unlike that encountered in other parts of the museum, or in fact most of their daily lives. More information about the Immersion Room is described in the section to follow.

My observations suggest that the images produced in these spaces are tied with the idea of place; that is, being in the museum and the city surrounding it, and are embedded within the immersive nature of the space itself. Furthermore, place-making within social media platforms such as Instagram appears to be a part of what unfolds and is a topic of growing interest with researchers in digital, social and cultural fields of inquiry as we grapple with the many dimensions of this phenomenon and its impact on social life (see for example Ash, 2015, 2017; de Souza e Silva, 2006; Miller & Goodchild, 2015; Shaw & Graham, 2017). Therefore, I designed a study to test this hypothesis by exploring data generated by museum visitors in a popular and digitally immersive environment.

Research Design
While in New York in 2015, I visited the recently refurbished Cooper Hewitt Museum of Art and Design in Manhattan. The Cooper Hewitt is part of the Smithsonian Institute that describes itself as 'the world's largest museum, education, and research complex' (Smithsonian, 2017). With the changes made to this museum and its reopening in late 2014, an array of elements have been introduced to digitally engage visitors while in the museum. One space, the Immersion Room, is a discreet small-scale space off to the side of one of the main gallery floors. In this room, visitors are able to use a large digital tablet constructed as a table to explore the Museum's wallpaper collection (by choosing one from the database) and have it projected on the walls in the room. Visitors are also able to create their own wallpaper by using digital pens on the tablet to draw. The technology immediately puts the patterns into repeat form, so that it's possible to see how these hand drawn images become wallpaper. The experience is immersive in that all walls in the room hold the images, so the visitor is surrounded by what amounts to a visually arresting experience (Figure 1).

I visited the Museum on an ordinary weekday and yet the queue to the Immersion Room was constant. People were eager to participate. I also noticed most people took photographs in the room, and many of these were either selfies or images of themselves and/or their friends taken by others but the backdrop of the digital wallpaper design projected on the walls in the room seemed to be an integral part of what was being captured and shared. I wondered if the images were being posted to Instagram. I asked a staff member from the Museum's digital team, who was showing me around that day. He confirmed that yes, many, many posts of this room were shared on Instagram and that they had even run a few Instagram campaigns around the focus of the room when they realised how immensely popular it had become (Cooper Hewitt, 2015).

When considering a context that foregrounded immersive spaces in museums, I chose the Immersion Room as a case study site for this research because there was evidence that the public were attracted to it, engaged with it, and seeking to communicate this experience on social media, especially Instagram. A two-year gap between my initial experience of this room and my decision to explore it as a site of research was the result of a growing curiosity, extending from research into museum visitor-generated Instagram posts, about various spaces in museums and the different kinds of Instagram posts that appeared to be shared there.

Figure 1: Kylie Budge (author) and Micah Walter from the Cooper Hewitt, Smithsonian Design Museum in the Immersion Room, New York, 2015

The specific aim of the research was to understand how digitally immersive and interactive museum spaces cultivate an environment that encourages particular behaviour and practices that are then conveyed through Instagram by museum visitors. Extending from this, I set out to analyse what this means in relation the act of place-making in the context of such spaces and the widely used, extremely visual social media platform, Instagram. The following research questions guided this investigation: Within digitally immersive interactive spaces in museums, what kind of social media posts on Instagram are visitors posting and sharing, and how might this relate to notions of meaning-making, identity, and place-making? The methodological approach I took was concerned with understanding representations of behaviour and actions, and the attitudes, beliefs and values associated with these, with a socially critical approach to understanding the broader context in which these are located.

Two terms are used throughout this study that need some defining. The first is *hashtag* defined as "a short keyword, prefixed with the hash symbol '#'—as a means of coordinating a distributed discussion between more or less large groups of users, who do not need to be connected through existing 'follower' networks" (Bruns & Burgess 2011: 1). The second term, *geotag*, is defined as a hyperlink that allows Instagram followers to know the geographical location of where the image was taken.

Method
A nondescript seven-day time period of posts to Instagram was chosen to bound a sample to study: 10am Wednesday 5 April – 10am Thursday 13 April 2017 (Australian Eastern Standard Time). By time-boxing the study, I followed the advice of Lee Humphreys (2015) and Lee Humphreys and colleagues (2012) who emphasise the need to firmly bound studies in social media because of the sheer volume of data they are capable of producing. The Cooper Hewitt geotag was used to further define the data sample. From this point, I looked at each post and determined whether it had been taken in the Immersion Room, and if so, included it as part of usable sample for this study. This was possible because I have visited the space and could recognise the distinctive nature of the photographs generated in the room. The Cooper Hewitt has an active #immersionroom hashtag, but this was not chosen as a way to bound the study because on closer observation, I noticed that more posts taken in this room were posted with the Cooper Hewitt geotag (and not the hashtag). This is possibly because many visitors are not aware of the hashtag, despite it being heavily used during previous Instagram campaigns run by the Museum. All posts are publicly available for viewing by anyone using Instagram

Ethics
Like many researchers working with publicly available social media data, I considered the ethical implications of collecting and studying posts without the previous knowledge of their creators. Although there is no consensus of what constitutes best practice (Haimson, Andalibi & Pater, 2016), it is important to consider and acknowledge the ethical implications of working with this material. I have followed the practice of receiving consent from the owners of Instagram posts before including these as examples (visual and text) in articles I have previously published using social media research.
In this article, I have included images *I have taken*, not those of Instagram users, to provide an example of the kind of images posted by others, and to illustrate the technology used in the Immersion Room. I made a decision based on a consideration of ethics not to include images from the Instagram users who I studied. To protect the identity of Instagram users whose text was included in this article to evidence my argument, I have not included their Instagram handle (name), or other material that might immediately make their identity known to the reader. I also considered the nature of the posts' content, and the perceived risk factors in using example text from such posts. The nature of the study undertaken does not pursue taboo, sensitive, or controversial topics, and as such was perceived to be low risk in terms of creating any potential harm for those whose words and phrases were included in the examples that follow. These decisions are in line with ethical guidelines for use of social media content in research publications (Haimson et al., 2016).
The notion of the researcher in this context as someone who is observing without being known, or as Dana Boyd refers to it, as part of the 'invisible audiences' in networked publics that are tied to properties including persistence, searchability and replicability (2007: 9) unlike those of mediated publics, was something I was mindful of as I worked with the data and considered how it would be represented in publication. Furthermore, Susan Barnes' (2006) notion of the 'privacy paradox' was considered. Social media activity now constitutes a large proportion of social life for many people, and in doing so, especially for teens, intimate, private thoughts are quite often exposed. The paradox lies in this information being harvested and stored by a range of organisations from

government agencies to marketers (Barnes 2006). Layered over this is the way in which, since Barnes early writing on this topic in 2006, we have become somewhat accustomed to the idea of being watched while talking and presenting ourselves textually and visually online, yet the discomfort continues around notions of privacy.

Handling the data

I am informed by Sarah Pink's approach in *Doing Visual Ethnographies* (2013) and Gillian Rose in *Visual Methodologies* (2012) when working with Instagram data due to the extensive visual properties it contains. To ensure I was working with a stable data set (Instagram users can delete or add posts at any time) I 'captured' the data by taking it from the live Instagram environment to a static one. Using the Cooper Hewitt geotag as a tool to identify relevant posts for the sample, I then deposited these into a MS Word document so that they could be maintained in an electronic file for exploration during analysis. Finally, I printed each post onto separate sheets of A4 paper. I then pinned these to a wall to enable a tangible and visual way to handle the data.

In this way, posts could be observed, explored and interrogated through their visual presence. The content of posts, both visual and text, were then 'read' and coded using a thematic approach. Data were explored for patterns and relationships, and to 'find[ing] explanations for what is observed' through segmenting and reassembling (Boeije, 2010: 76). A central focus was to 'ask questions of the data' as I worked through analysis of it (Neuman, 2000: 420; Richards, 2010). The research questions, purpose, and overall design guided analysis (Coffey & Atkinson, 1996).

From here patterns and themes emerged quickly. I used a process of inductive coding (Corbin & Strauss, 2008) to group the data. That is, the codes were developed from the data itself using a bottom-up method (rather than imposing preconceived codes) working 'up from the data' (Richards 2010: 73).

This way of working allows me to come back and forth over time in an iterative manner to reconsider the themes, and having them visually presented on a wall, allows those who encounter them (for example, other researchers visiting my office) to view and consider their content. This unintended dialogue has become a valuable way of testing my emerging thinking about the data and was used as a way to refine understandings in previous studies by (Budge, 2017; Budge & Burness, 2018).

What the posts revealed

A total of 66 posts from 62 individual users were generated through the seven-day period chosen for the study. In terms of the visual content of images, there were three distinct categories: people standing in front of the digital wallpaper image (with the image projected across their faces and bodies), posts containing just the digital wallpaper on the walls in the room, and posts of the large digital tablet (mounted as a table – See Figure 2) together with the digital wallpaper on the wall. Information about the number of posts in each of these categories can be seen in Table 1 along with the codes and themes from the data. It is worth noting that one of the posts in the sample was from the official Cooper Hewitt Instagram account but was a 'regram' of a visitor's post. A regram is when a user reposts an image from another user on their Instagram account, usually to draw attention to it.
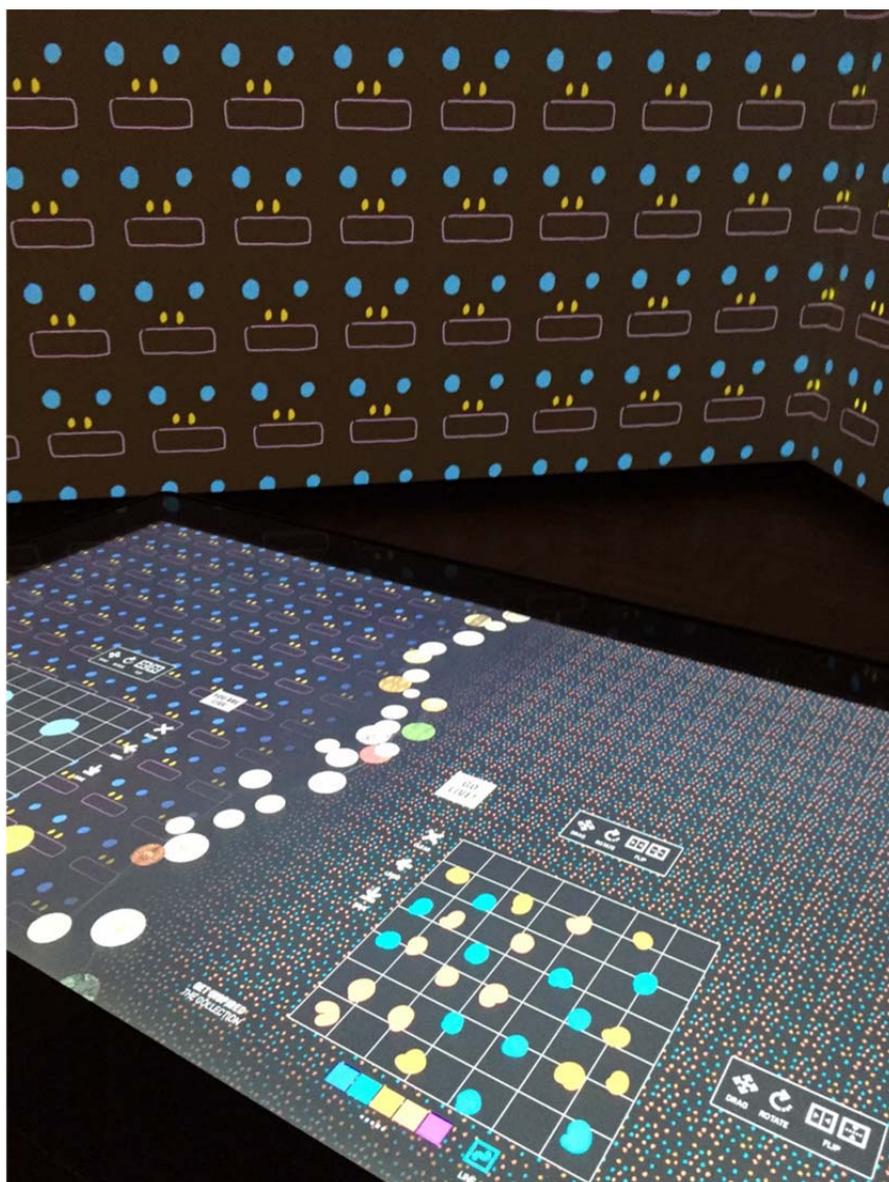
Figure 2: Digital tablet for designing wallpaper and projected image on walls in the Immersion Room, Cooper Hewitt, Smithsonian Design Museum, New York

It was not possible to provide a demographic breakdown of individual users (museum visitors) in the sample because an Instagram account does not readily lend itself to this exercise. User names are sometimes not the names of the user, and even if they were, it would not be possible to know gender or other demographic information unless this was confirmed with the Instagram users in the sample. Direct contact was not made with those in the sample to ask this or any other question. However, it is worth noting that every person appearing in the sample of posts appears to be under 40 years old, and thus provides a youthful lens to the activity that is reflected. Most posts contained one person in the image, while sometimes two or three people were pictured.

Table 1: Overview of images posted 5-13 April 2017 with codes and themes

Category	No of images	Major code groups	Key themes
People standing in front of wallpaper	49	Emotion – humour, joy, delight Selfies/people-related photography – looking at the viewer Pattern, light and people enmeshed through photography	Museum visitor-as-designer Sharing emotion
Wallpaper	12		
Digital tablet/Digital tablet & wallpaper	5	Design – visitor experimentation with technology Use of colour and pattern in posts to stand out Communication – expressing and sharing with followers Marking place – museum, New York; the self in place	Place-making Self

In the category, 'People standing in front of wallpaper', 36 of the 49 images posted were of a single person (but not the same person) standing alone in front of the wallpaper. The other 13 images in the category were of small groups of two or three people standing together, presumably friends visiting the museum together.

Of the 66 posts, 24 used text statements in their wallpaper design. This constitutes 36 per cent of all posts in the sample. These were obviously made by the Instagram user who posted the image (or their friend/s accompanying them), and not drawn from the Cooper Hewitt wallpaper collection. The prevalence of such statements is surprising as I assumed that the opportunity to draw images, rather than use text, would be taken up in this room. Statements in the wallpaper design varied but many were names, presumably those of the visitors. For example, 'hey Jenn', 'Ri & Hele New York', 'Julia', and 'Annelie' were seen integrated into the different digital wallpaper designs. One visitor chose to include the statement, 'Be gentle with yourself'. Four of the text-based wallpaper designs appeared in languages other than English – Korean and Chinese.

Eleven out of the 66 posts in the sample included languages other than English in the text that accompanied the visual image (that is, not part of the wallpaper design but as text written under the visual image in Instagram), with the majority of these being languages from Asia. Those that could be easily identified included Korean, Mandarin, and Japanese. Portuguese was also present.

Hashtags were used by most visitors. For example, #wallpaperWednesday, #designing, #creating, #creativeprocess, and #designinspiration were included in many of the posts.

Discussion

The visual and text-based elements of each post was read holistically to provide an opportunity for meaning to be conveyed through the entire context of the post. Interpretation of information posted by visitors in the sample involved organising data into themes. As mentioned earlier in the description of how the data was handled, this process of coding the data into themes emerged quickly. When the posts were read, coded and thematically grouped, four key themes emerged: museum visitor-as-designer; sharing emotion; place-making; and self. The following sections highlight the central thematic groupings that my interpretations revealed.

Museum visitor-as-designer

Of much interest to me as someone who has worked in a museum, there is a strong need to convey the act of designing or creating revealed both through the photographs posted and the text accompanying these. Museums work hard to create experiences for visitors to engage with their collections. In this case, there is strong evidence to show that the Cooper Hewitt, an internationally renowned design museum, has succeeded in engaging visitors in this space in the act of designing.

For example, text under posts that communicates this idea of visitor-as-designer includes the words 'designing', 'creating', and 'design inspiration', and 'patterns' as hashtags. One post included the information: 'Cooper Hewitt's customizable DIY digital wallpaper', and another, 'Immersion Room for creating textures'. Highlighting the visitor-as-designer idea was one post with the words, '@_____[name of person posting] is an interior designer'. Another post included: '@_____[name of person posting] drew on a wall today'. These examples highlight the active role playing of designer by visitors in the sample. As such, the notion of being a designer, of creating something, even if only fleetingly, appears to be important to many of the visitors immersed in this space. Reinforcing this idea is the way in which visitors experiment with colour and pattern in their digital wallpaper creations. While some of the wallpaper designs projected on the walls in the posts are from the Cooper Hewitt collection (visitors are able to download these through the database on the digital tablet in the room), the majority of posts reveal designs created by visitors through the technology embedded in the custom-made digital tablet and accompanying pen. Designing a repeat pattern appears to be particularly compelling and this activity is highlighted through the visitors' posts. Creating a repeat pattern is not a simple step for novices, and thus having access to technology that immediately does this appears to be very engaging for visitors in this space.

Thus, the museum visitor momentarily becomes a designer in the Immersion Room. The social presence of others, both those in their Instagram network and the people physically present in the room, is part of this experience. The ability to experiment with being a designer is enabled through the technology of the custom-made digital tablet that allows for two visitors as a time to create patterns. This experience is amplified and extended through the sharing on Instagram and thereby potentially drawing in and including many others. The simple idea of projecting the patterned digital wallpaper around the room creates a visually striking and unique immersive experience for the museum visitor-as-designer. There is an immediacy about this experience that is also attractive. All it requires is for the visitor to stop and draw on the tablet for five minutes, and their work is instantly projected around them. Inhabiting the role of a designer, if only briefly and somewhat superficially, is fast, visually exciting, and appears to be satisfying. An example

of this is a post of a young woman using the tablet to design her own wallpaper (we see her face and body from the side and her hand as it holds the pen and draws on the digital tablet surface) who writes 'Channelling my inner designer'. Suggesting pride in their work, another visitor posted 'I made dis' with an image of them standing in the space with their designed wallpaper surrounding and across their body.

Sharing emotion
The overwhelming atmosphere portrayed through all posts (both visual and text components) is one of joy and of the museum visitors having fun. It was the first thing I observed when looking at the data. For example, summing up this idea, one visitor posted: 'I'm having the time of my life designing this wallpaper'. Another visitor expressed their enjoyment simply with 'Sunday Funday'.
This particular immersive space appears to cultivate a positive atmosphere and one which the visitors want to share with others via their social networks in Instagram. Illustrating this idea are the comments made by followers on posts such as:
> 'Obsessed'
> 'I am in love with this'
> 'This is too cool'
> 'Legitimately perfect'
> 'Actual art'
> 'OMG this is goood!'
'Wow! This is a great photo'.
Thus, the desire to share their presence in this space is strong. It is possible to see how the acts of place-making and connecting with others are fully activated in the Immersion Room.
It is intriguing as to why one space could illuminate such a display of positive affect, and extending from this, why there is a need to share it with others. One possible explanation is the need to tell others so that they too might experience a similar joy and connection with an act of design in the vein of Hjorth's (2016) notion of 'intimate copresence'. Mobile media amplify creative possibilities bringing together acts that create a sense of closeness or proximity through the visual. As viewers of these posts we are drawn into a close, otherwise private moment between friends. This visuality is emplaced (Pink & Hjorth, 2014) and this is illustrated through the emotion portrayed within the posts in this sample. Hjorth and Hendry describe their concept of *emplaced visuality* as putting

> *theory of movement at the center of our understanding of contemporary media practice. Rather than movement being between nodes in the "network," movement needs to be understood as central to the way people and images become emplaced. Emplacing involves the entanglement of movement and placing across temporal, geographic, electronic, and spatial dimension. (Hjorth & Hendry, 2015: 1)*

The sharing of joy is emplaced in the Immersion Room at the Museum through the act of being there and designing digital wallpaper with others.

Place-making through visuals
The visuals in the posts, that is, the photographs and one short video, declare almost audibly, that '*I am here*'. Visitors want to let others know that '*I am in this place*', that is,

this museum, doing something interesting. In some cases, there is the need to communicate that they are in that place (the Immersion Room) in the museum, 'with these people' (others who are sometimes also in the photos that are posted).

The Immersion Room means something to the museum visitors from this sample. This declaration of place-making is done in several ways. Firstly, we can see place-making occur through hashtagging and/or geotagging the Cooper Hewitt. With geotags as location-based tags, it is possible to view a map of where the Museum is geographically located. This is a very literal way of perceiving place-making but it is an important one. If visitors did not want to demarcate place as meaningful, they would neither hashtag nor geotag their posts, and would most likely refrain from posting about their visit on social media.

Secondly, the act of place-making is visible through various design elements within the wallpaper created by visitors. For example, one post included the text 'Ri & Hele New York' in their design so when it was put into repeat by the digital tablet technology, a room full of these words was displayed to full effect. One reading of this could be that Ri and Hele are the museum visitors who created the digital wallpaper, and that being at the Cooper Hewitt is significant not only for their ability to design something while they are in the building, but because it is located in New York. The Cooper Hewitt is located on 'museum mile' on Manhattan's Fifth Avenue across the road from Central Park. All of these geographical markers are significant because of the international standing and popularity of New York as a city. Ri and Hele could quite possibly be travellers visiting the city, and as such wanting to place-make their trip. Their post, like others in the sample communicates the excitement of being at the Museum in this particular and unique space (the Immersion Room), and of being in New York.

The significance of New York as a place, and the need to identify this through an act of place-making is evidenced through the posts via a variety of hashtags, for example, #NewYork and #NY. The Museum too is articulated as a place worthy of highlighting and sharing through hashtags such #CooperHewitt and #Smithsonian used by many visitors whose posts appear in this sample. The museum as a significant place to mark (both the museum as a general place and this particular one – the Cooper Hewitt) is indicated via one visitor who included the following text under a photo of herself (we presume) standing in front of her wallpaper design: 'Museum day again with @_____[friend's name]'. Her design consists of many short, coloured lines intersecting into a graphic pattern which falls across her face and body and behind and around her in the image. Another visitor posted: 'By far the trippiest room I've ever been in [facial emoticon] (but also the museum had a sustainable textiles exhibit that was really great, would definitely recommend).' Both show the ways in which visitors single out the museum as a place that is special or significant in some way, and this is further amplified through their practice of sharing the place-making on Instagram.

Self in the Immersion Room
The idea of 'self' is a central theme emerging through the images and text posted. Interwoven through and connected with self is the concept of identity. The wallpaper pattern text created by visitors especially evidences this given 36 per cent of all posts in the sample of 66 included some kind of text in their wallpaper design. Many of these were names and presumably those of the visitors. Examples of names appearing in repeat

pattern as the focus of their digital wallpaper design include 'Julia', Miki', 'Annelie', 'Tracy', and 'Ri & Hele New York'.

Being known to be in the Immersion Room is an important part of many visitors' experience, and is certainly communicated through the posts shared in this sample. Photographs of visitors (be they selfies or photographs taken by a friend) is one way this is communicated with 74% of posts in the sample including a person or a small group of people (pairs, and in two cases, a group of three people). However, in addition to this need to capture and visually communicate the self in this space, is the desire to express this through text via names in the wallpaper design, presumably those of the visitors who posted the images to Instagram. When considered together, this constitutes a considerable amount of self being expressed and communicated in one museum space. The specific technology provided by this particular space enhances opportunities to not only take selfies, but to create wallpaper that incorporates the individual (for example, through their name), and to leave a trace of something about their personality or creative interests. While the trace is not left behind in the room as such, the digital mark is held and remains within the image posted to Instagram. This finding echoes Alli Burness' argument about 'self-representational social photography' being 'a definite response to, and a form of self-expression inspired by, museum objects' (2016: 100), but in this case the objects are digital and mutable (Rose, 2016) ones.

Communication theorist, Katie Warfield's (2014) research on the self in the context of the selfies taken by young women, points to the desire for self-expression as a way to insert oneself into the public domain on their own terms. Given the young age of those visiting the Immersion Room, it is possible that such acts of self are being carried out here given the significant traces of self-expression in the posts created by those who visited the Immersion Room.

In these traces of self within the Immersion Room posts, elements of performativity can be seen. Warfield has explored performativity in her work with girls and selfies, and argues that it is connected with the unfolding process of everyday human performance of self. In such performances there are insights into connections, be they momentary and fleeting, and authenticity (Warfield, 2014). Theorist, Judith Butler (2008) has explored performativity in relation to self and identity construction with a strong focus on gender, claiming the importance of power in speech acts such as naming. Her work posits that all reality is fundamentally social and constructed, and created through continuous performance. In the Immersion Room data speech acts occur through the text that supports the Instagram posts, the text woven into the visitor-made wallpaper designs, and through the act of self that is portrayed through the photographs themselves. As such, the notion of self is pervasive and present. However, there is a need to speak directly to those producing the images to further understand the motivation and other complexities that underpin their creation, as Warfield has argued in her research.

Suspending reality

In the data set discussed here there is much evidence of play and 'ambient play' as Hjorth (2016: 180) refers to it. As she explains, 'Mobile media play a key role in emergent intimate publics whereby binaries such as online/offline, public/private and work/personal are eschewed. This entanglement can be understood through the notion of ambient play' (Hjorth, 2015: 24). Both play and ambient play are witnessed through the visitors'

experimentation with being a designer, and the joy they express of being in a unique space within a far from ordinary museum in an extraordinary city, New York. Play is further enacted through the desire to illuminate the idea of self in such place-making through the visual, with many visitors opting to post images of themselves woven through the digital patterns they have created on the walls behind and around them. Here, Pink and Hjorth's (2014) notion of 'emplaced visuality' is enacted on a double level: through the Instagram post itself marking a visual-in-geotagged-place and space, and via the emplacement of the visitor in the digitally design wallpaper through which many are enmeshed in their images.

The Instagram posts illustrate the way in which 'the emotional, psychological, and social dimensions [of visitors] are both lived and imagined' (Hjorth, 2016: 33). As viewers, we speculate on those in the images (and those we cannot see but understand to be present) to ponder where they live, how they usually spend their days. We wonder if they aspire to be designers or are just enjoying a moment to play at this role. We read the comments on their posts and imagine the circle of friends and acquaintances they inhabit, both real and virtual, and use this moment to paint small portraits of their lives in our minds, thus unleashing many possibilities. The entire experience from the viewer's perspective is both intimate and strikingly visual, generating a sense of copresence and knowledge of place.

All of this is possible because of the offer to suspend reality through the convergence of an immersive and interactive digital environment in a museum and the visuality and sociality afforded through Instagram. With the meshing of these two habitats an invitation to suspend disbelief, to take a step away from the everyday, including how we understand and usually perform our 'self', is opened up. From there comes an opportunity to take a small slither of time to playfully shape, construct and reconstruct who we are, and who we can be, leaving a digital trace to memorialise the moment.

Conclusion

Located in an emergent interdisciplinary field, there have been few scholarly studies involving Instagram and cultural institutions from which one can draw to understand the phenomena generated by the convergence of these realms. Exceptions include five recent studies (Arias, 2018; Budge, 2017; Budge & Burness, 2018; Carah, 2014; Suess, 2014). The case shared here, like those of recent studies, draws on data from one setting in one moment in time (albeit seven days from a very popular, high profile museum in New York) and as such I acknowledge the limitations of generalising claims from this research. Standing beside this acknowledgment, however, is the belief that the methodology and findings of this research are meaningful and significant in understanding museum visitors' perspectives. Through this approach, insights are revealed and interpretations are possible, and the implications from this research extend and challenge perceptions and roles of both museums and visual forms of social media.

In this article, I have argued that the intersection of immersive digital environments and visual social media platforms such as Instagram offer a moment to play with and subtlety reconstruct the self with place being a significant contextual frame for this activity. This contributes new knowledge to the field particularly in relation to place-making. Furthermore, it takes up Rose's (2012) call for studies to include and focus on the visitor's 'eye'. It does this through an increasingly popular visual medium, Instagram. This

research foregrounds social media as a serious and worthy subject matter in the museum engagement context. Moreover, it draws on visitors' publicly available creative outcomes of this moment in the museum (their Instagram posts), to illuminate activity occurring in a uniquely immersive museum environment with digital engagement as the central focus. Implications for this research extend to deeper understandings of the nuanced relationship between people, spaces, museums, and technology, including social media. Furthermore, such thinking opens the possibility to alter and reconfigure perceptions held about the role of museums and their spaces, and the ways in which this relates to social media such as Instagram. This includes recalibrating out-dated notions of museums as sole interpreters of knowledge whose role is to deliver history or ideas about the present in a didactic, one-way manner (museum to visitor). Research such as this and previous studies in the museum context enable the possibility for reshaping conceptions about social media research as being worthy of scholarly inquiry and exploration. It can inform current thinking, approaches and practices in museums, and the mediums from which meaning about contemporary culture can be drawn.

Research such as that articulated in this case study repositions the museum in society so that it is clear that it is not detached from, but very embedded in the broader world as a public space. The museum is a place for many experiences, including ones that involve creating and recreating ideas about the self, even if for only a brief moment in time. The added dimension of visually-based social media in this act framed by the museum as place is that it provides the potential for digital traces of the experimental and playful self to remain, and to be encountered by others. In doing so, it offers the opportunity to be part of this evolving experience of the lived and imagined.

Acknowledgements

References

Arias, Maria (2018). 'Instagram Trends: Visual Narratives of Embodied Experiences at the Museum of Islamic Art'. Paper presented at *MW18: Museums and the Web* conference, Vancouver, Canada, 18-21 April.

Ash, James (2015). *The Interface Envelope: Gaming, Technology, Power*, London: Bloomsbury.

Ash, James (2017). *Space, Time and the Politics of Smart Objects*, London: Bloomsbury.

Australian Directors Guild (2011). *Submission to the National Cultural Policy*, October 2011. http://creativeaustralia.arts.gov.au/assets/Australian_Directors_Guild.pdf

Barnes, Susan, B (2006) 'A Privacy Paradox: Social Networking in the United States', *First Monday* 11 (9). http://firstmonday.org/issues/issue11_9/barnes/index.html

Bennett, Tony (1995). *The Birth of the Museum*, London: Routledge.

Boeije, Hennie (2010). *Analysis in Qualitative Research*, Sage: London, England.

Boyd, Dana (2007). 'Why Youth (Heart) Social Network Sites: The Role of Networked Publics in Teenage Social Life' in David Buckingham (ed.) *MacArthur Foundation Series on Digital Learning – Youth, Identity, and Digital Media Volume,* MIT Press, Cambridge, MA, 119-142.

Brouwer, Joke & Mulder, Arjen (2003). 'Introduction' in Joke Brouwer & Arjen Mulder (eds.), *Information is Alive*, Rotterdam, Netherlands: nai0 10: 4–7.

Bruns, Axel & Burgess, Jean (2011). 'The Use of Twitter Hashtags in the Formation of Ad Hoc Publics'. Paper presented at the 6th European Consortium for Political Research General Conference, University of Iceland, Reykjavik, 25-27 August.

Budge, Kylie (2017). 'Objects in Focus: Museum Visitors and Instagram', *Curator: the Museum Journal,* 60 (1), 67-85.

Budge, Kylie & Burness Alli (2018). 'Museum Objects and Instagram: Agency and Communication in Digital Engagement', *Continuum*, 32 (2), 137–150.

Burness, Axel (2016). 'New Ways of Looking: Self-Representational Social Photography in Museums' in Theopisit Stylianou-Lambert (ed.) *Museums and Visitor Photography: Redefining the Visitor Experience*, MuseumsEtc, 90–127.

Butler, Judith (2008). *Gender Trouble,* New York, London: Routledge. Original work published 1990.

Carah, Nicholas (2014). 'Curators of Databases: Circulating Images, Managing Attention and Making Value on Social Media', *Media International Australia,* 150, 137-142.

Coffey, Amanda & Atkinson, Paul A. (1996). *Making Sense of Qualitative Data*, Thousand Oaks, CA: Sage.

Cooper Hewitt (2015). 'Participate in the Immersion Room Instagram Contest'. https://www.cooperhewitt.org/2015/02/02/announcing-the-immersion-room-instagram-contest/

Corbin, Juliet & Strauss, Anslem (2008). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory,* Thousand Oaks: Sage Publications.

Cresswell, Tim (2004). *Place: A Short Introduction*, Malden: MA. Blackwell.

de Souza e Silva, Adriana (2006) 'From Cyber to Hybrid', *Space and Culture,* 9 (3), 261-278.

Dudley, Sandra (2010). *Museum Materialities: Oobjects, Engagements, Interpretations*, London and New York: Routledge.

Evans, Brad & Giroux, Henry (2015). *Disposable Futures: The Seduction of Violence in the Age of Spectacle*, San Francisco, CA: City Lights Books.

Ferrara, Emilio, Interdonato, Roberto & Tagarelli, Andrea (2014). 'Online Popularity and Topical Interests through the Lens of Instagram'. Paper presented at Proceeding of HT'14, 25th ACM conference on Hypertext and Social Media, Santiago, Chile.

Frith, Jordan & Kalin, Jason (2016). 'Here, I Used to Be: Mobile Media and Practices of Place-based Digital Memory', *Space and Culture*, 19 (1), 43-55.

Gane, Nicholas & Beer, David (2008). *New Media: The Key Concepts*, Oxford, England: Berg.

Goffman, Erving (1959) *The Presentation of Self in Everyday Life,* Garden City, New York: Doubleday Anchor.

Haimson, Oliver, Andalibi, Nazanin & Pater, Jessica (2016). 'Ethical Use of Visual Social Media Content in Research Publications', Australasian Human Research Ethics Consultancy Services. https://www.ahrecs.com/uncategorized/ethical-use-visual-social-media-content-research-publications

Hjorth, Larissa (2015). 'Narratives of Ambient Play: Camera Phone Practices in Urban Cartographies' in Marcus Foth, Timo Ojala & Martis Brynoskov (eds.), *Citizen's Right to the Digital City* edited, Springer Science+Business Media, Singapore, 23–36.

Hjorth, Larissa (2016). 'Mobile Art: Rethinking Intersections Between Art, User Created Content (UCC), and the Quotidian', *Mobile Media & Communication*, 4 (2) 169–185.

Hjorth, Larissa & Hendry, Natalie (2015). 'A Snapshot of Social Media: Camera Phone Practices', *Social Media + Society*, April-June, 1-3.

Hooper-Greenhill, Eilean (1992/2003). *Museums and the Shaping of Knowledge*, London: Routledge.

Humphreys, Lee (2015). 'The Qualified Self: Social Media and the Accounting of Everyday Life'. Paper presented at Media@Sydney Seminar, University of Sydney, NSW, 22 June.

Humphreys, Lee, Gill, Phillipa, Balachander, Krishnamurthy & Newbury, Elizabeth (2012). 'Historicizing New Media: a Content Analysis of Twitter'. Paper presented at International Communication Association Annual Conference.

Jaakkola, Elina & Alexander, Matthew (2014). 'The Role of Customer Engagement Behavior in Value Co-Creation', *Journal of Service Research*, 17 (3), 247–261.

Massey, Doreen (1994). *Place, Space, and Gender*, Minneapolis, MN: University of Minnesota Press.

Massey, Doreen (2005). *For Space*, London, England: Sage.

Miller, Harvey & Goodchild, Michael (2015). 'Data-driven Geography', *GeoJournal,* 80 (4), 449–461.

Milnes, Hilary (2016). 'The Instagram Effect: How the Platform Drives Decisions at Fashion Brands', *Digiday*. https://digiday.com/marketing/beyond-likes-instagram-informing-fashion-brands-internal-decisions/

Mioli, Teresa (2015). 'Screens, Not Physical Media, Dominate Culture Robert Picard Tells ISOJ Audience', Knight Center for Journalism in the Americas, The University of Texas at Austin. https://knightcenter.utexas.edu/blog/00-16051-screens-not-physical-media-dominate-culture-robert-picard-tells-isoj-audience

Neuman, Lawrence (2000). *Social Research Methods: Qualitative and Quantitative Approaches*, 4th ed, Boston, MA: Allyn & Bacon.

O'Brien, Heather & Toms, Elaine (2008). 'What is User Engagement? A Conceptual Framework for Defining User Engagement with Technology', *Journal of the American Society for Information Science and Technology,* 59 (6), 938–955.

Pink, Sarah (2013). Doing Visual Ethnography, 3rd ed, London, UK: Sage Publications.

Pink, Sarah & Hjorth, Larissa (2014). 'Maps of Emplaced Visuality: Reconceptualising Camera Phone Practices in the Age of Locomotive Media' in Gerard Goggin & Larissa Hjorth (eds.), *The Routledge Companion to Mobile Media,* Routledge, New York, NY, 488–513.

Richards, Lyn (2010). *Handling Qualitative Data,* Thousand Oaks, CA: Sage.

Rose, Gillian (2012). *Visual Methodologies*, 3rd ed, London: Sage.

Rose, Gillian (2016). 'Rethinking the Geographies of Cultural 'Objects' Through Digital Technologies: Interface, Network and Friction', *Progress in Human Geography,* 40 (3) 334–351.

Russo, Angelina, Watkins, Jerry, Kelly, Lynda & Chan, Sebastian (2008). 'Participatory Communication with Social Media', *Curator: The Museum Journal,* 51 (1) 21–31.

Russo, Angelina, Watkins, Jerry, Kelly, Lynda & Chan, Sebastian (2006). 'How will Social Media Affect Museum Communication?' Paper presented at Nordic Digital Experience in Museums (NODEM 06), Oslo, Norway.

Schnall, Simone, Hedge, Craig & Weaver, Ruth (2012). 'The Immersive Virtual Environment of the Digital Fulldome: Considerations of Relevant Psychological Processes', *Human-Computer Studies,* 70 (8), 561–575.

Shaw, Joe & Graham, Mark (2017). *Our Digital Rights to the City*, Meatspace Press.

Smithsonian (2017). www.si.edu.

Sparacino, Flavia (2004). 'Scenographies of the Past and Museums of the Future: From the Wunderkammer to Body-Driven Interactive Narrative Spaces'. Paper presented at Multimedia '04, 12th annual ACM international on multimedia, 72–79.

Suess, Adam (2014). 'Art Gallery Visitors and Instagram', Master's thesis, University of Arts London, London. https://www.academia.edu/12086365/Art_Gallery_Visitors_and_Instagram

Tuan, Yi-Fu (1977). *Space and Place: The Perspective of Experience*, Minneapolis, MN: University of Minnesota Press.

Warfield, Katie (2014). 'The Treachery and the Authenticity of Images', *TEDxKPU* https://www.youtube.com/watch?v=Jho-2IZ_tnE

Wigley, Mark (2016). 'Discursive Versus Immersive: the Museum as the Massage', *Stedelijk Studies*, 4, http://www.stedelijkstudies.com/journal/discursive-versus-immersive-museum-massage

Winkin, Yves & Leeds-Hurwitz, Wendy (2013). *Erving Goffman*, New York: Peter Lang Publishing.