The Ambiguous Archive: Playful Design for Digital Archives and Collections

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ABSTRACT
The ongoing digitization of the collections of museums, galleries, libraries and other cultural institutions has led to the creation of many publically accessible digital archives and collections. This trend comes in parallel with the general shift in museums and galleries from a collection-centred approach to programming, towards a community and public centred one. This paper argues that although the importance of digital cultural archives in traditional educational and research contexts should not be understated, there nevertheless is a lack of research in to how these archives can be used to engage with new publics and forge new types of relationship between museums and audiences. This paper highlights three areas that may be of use to HCI researchers in designing playful interactions for digital archive systems, through reappropriation, gamification and ambiguity, and points to areas of potential future research in each.

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Digital archives; digital collections; gamification; ambiguity; playful design

ACM Classification Keywords
H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous;

INTRODUCTION
Since the early 1990s museums, libraries and other cultural institutions have been embarking on projects of digitizing their collections and archives. There are many motivations behind this trend, from the preservation of valuable and fragile artefacts, to increasing the access to and availability of content, to promoting the public profiles of cultural institutions via the showcasing of rich cultural content [4]. A number of high profile cultural institutions such as the British Library, New York Public Library and MOMA have very visibly conducted digitization projects of their archives.

Towards this end, this paper offers three non-educational approaches that HCI researchers could take when designing modes of engagement with digital archives and collections. These approaches eschew traditional archival activities of navigating and categorizing information and instead focus on playful and dialogic interactions with audiences.

REAPPROPRIATION
A strong motivation for the digitization of archives is the preservation of precious or fragile artefacts, this is in keeping with one of the main roles that libraries and archives perform as repositories of information. Accuracy, authenticity and completeness are often seen as paradigmatic ideals in this role. However digital reproductions do not share the same
fragility as their physical counterparts, they are easier to distribute, copy, change and remix, making them ideal targets for modification and reappropriation.

One example of this can be seen in WeCurate [3], where an interactive exhibit allowing museum visitors the ability to socially curate a digital exhibition, was installed in a major London gallery. The installation ran on 4 iPads and allowed visitors to browse, vote on and discuss the merits of digital archive images in reference to their inclusion in a virtual exhibition. The study found that WeCurate created valuable spaces for social activity in the discussion of digital artefacts and although it took place with physical visitors of a museum, there is no reason that a similar system could not be developed for online archives and for an online audience. The social crowd curation of digital archives could provide an interesting method for engaging new audiences in rich cultural online content and promote a more dialogic relationship.

Although seemingly at odds with the conception of archives as being accurate representations of information, a number of intuitions have experimented with actively encouraging their audiences to modify their digital collections. In 2014, TATE Britain held an 1840s gif party [6] where audiences, most notably the Tumblr community, were invited to directly alter images taken from TATE’s digital archive of 1840s paintings. The result was the creation of hundreds of animated gifs, ranging from humorous and irreverent to beautiful and poignant. As an example of encouraging audiences to directly modify digital content, the gif party succeeded both in creating new playful relationships with its audience members but also, due to many of the gifs ‘going viral’, by utilising social media to spread awareness of TATE’s collection.

In terms of HCI, the active encouragement of the reappropriation of digital collections and archives is an interesting area for future research. From recent experimentations, we have seen that reappropriation has the potential to create social spaces around digital collections, areas for debate and dialogic engagement. Furthermore, facilitating playful interactions with collections creates new, compelling forms of relationships between institutions and audiences, relationships which could not exist in traditional museum and archive settings, founded on the unique mutability of digital artefacts.

GAMIFICATION
The introduction of games and game-like elements to museum and gallery experiences is a well-established and uncontroversial idea in HCI. A number of studies [1] have looked at theoretical role of games in museum and gallery spaces, and studies into specific HCI interventions in these spaces are well represented in the ACM Digital Library. What is less well represented however, are enquiries into the roles that games and gamification can play in the configuring of audience engagements with digital archives and collections.

One institution leading in this field is The British Library, who after generating a huge online archive of imagery taken from their collection, created the annual ‘Off The Map’ competition in collaboration with GameCity. The competition invites game designers to use The British Library’s digital collection to inspire and create games thematically informed by upcoming exhibitions. ‘Off The Map’ has been very successful in raising awareness of The British Library’s collections and exhibitions as well for creating new relationships with new audiences. However, although a link between games and online collections exists in this project, there is still more work that needs to be done around how games can play as a mode of engaging with collections.

A possible step forward may be found in the ArtHunter App [5], created for The National Galleries Scotland in 2013. The app, intended to be used during a visit to one of the Scottish National Galleries, utilises a simple, competitive ‘collection’ game mechanism where visitors ‘unlock’ digital archive content by scanning physical tags placed next to the artworks in the galleries. The app was moderately successful despite being quite limited in its scope and its use restricted to physical visitors to the galleries. As an example of simplistic gamification of archive collection, it suggests that game mechanisms can have an interesting role to play in engaging with digital archives.

ArtHunter utilised a light competitive collection mechanism, but games offer a whole host of different mechanisms to shape and curate player experiences. These can be competitive or cooperative, constructive or destructive, casual or strategic to name just a few. As a method for museums to create new relationships between their digital collections and their public, games are an untapped resource. This paper suggests that HCI investigations into game and game-like engagements with the digital collections and archives of cultural institutions are a fruitful area of future enquiry.

AMBIGUITY
The ability to consistently and accurately search, sort and navigate large amounts of information is fundamental to the design of nearly all computer interfaces for digital archives and collections. Although many systems differ in their approach, the goals of usability, efficiency and consistency remain the same throughout. The introduction of notions of designed ambiguity in digital archives is seemingly at odds with this principle. Yet this paper argues that degrees of ambiguity of some processes may actually foster new relationships and create new modes for museums and cultural institutions to engage their audiences.

In HCI, notions of ambiguity as a tool for design [2] are fairly well established. As incorporated in systems, certain ambiguous design elements have been demonstrably successful in fostering deeper, more interpretative engagement from users. This increase in engagement is primarily due to the user having to bring some of their own
ideas, beliefs and experiences in to their interactions with a system to make up for incomplete information. This creates a more interpretive relationship between users and systems.

There have been a number of examples of the incorporation of ambiguity in designing interfaces for cultural institutions. One notable example is the InfoGallery [7] information system, which presents multiple sources of digital information in a large public library in an aesthetically pleasing and engaging way. In their discussion of how users interacted with the system, the authors directly refer to how being located ‘out of context’ and the unusual appearance of the system directly contributed to gaining audience attention.

There has been little or no enquiry into how ambiguity of information may be used in the designs of interfaces for digital archives and collections. Most likely due to the reasons stated at the start of this section. Although it is clear that efficiency and accuracy are important when these archives are used for educational or research purposes, there is an argument that by in designing only in this way, museums and galleries are missing out on forming new kinds of relationship with online audiences through their digital collections.

Potentially rich avenues to explore include the creation of playful and/or creative interfaces for engaging with collections through devices and tools that create ambiguous juxtapositions between digital artefacts that lead visitors to interpret creatively, and scaffold storytelling and idea generation. Search tools that react unpredictably could lead users to have to ‘feel’ their way through an archive, discovering things they didn’t know they were looking for, and ultimately deepening engagement. Additionally, designing for ambiguity ties closely into ideas around gamification and reappropriation of digital archives as discussed above.

CONCLUSION
As a method of forming new relationships with audiences, digital archives and collections remain an untapped resource. This paper proposes that notions of reappropriation, gamification and ambiguity be incorporated in design explorations of digital archives, in order to investigate how the creation of new playful, ambiguous and creative methods of engaging with these resources may create vital new audiences for museums and galleries.

REFERENCES