

In museums today, can digital collections be treated the same as material collections?

The question of whether digital collections can be treated the same as material collections is a deceptively simple one. At first blush, it is easy to assign special status to digital collections, as something new, strange, and rapidly changing, it seems they should throw up copious problems previously unencountered by museums. But the further you look into these problems the easier it is to see the similarities between digital and physical collecting. At the beginning of the process a well written collections policy is equally as relevant to the digital sphere as it is the physical, and museums are hardly strangers to dealing with complex provenances and rights issues as part of making new acquisitions, nor, at the end of the process, to handling the storage and sometimes strenuous conservation efforts (such as the timbers of the *Mary Rose* (Mary Rose, no date) the likes of which should be more than equal analogues for maintaining the integrity and usability of digital data) needed by those items. Indeed, practically, such differences as exist between digital and material collections are mostly a matter of degree. The real divergences in how we need to treat digital and material collections are more philosophical, and fundamental, questions of *what* are we collecting, code or experience? How much should be collected, how do we mediate between the relevance of collecting potentially massive digital objects and the challenges inherent in storing them? And how do we navigate the question of what makes a mass produced, (almost) infinitely copyable, digital product worth collecting?

In *Collecting reconsidered*, Pearce (1994) discusses three different modes of material collecting: souvenir – collected for its personal connections; fetishistic – collected for its type; and systematic – collected with purpose, to the latter of which she ascribes the epitaph “you can do something with it’, you can make a point, you can engage your public.’ (p202); Watkins (2015) meanwhile, describes three different types of collection: the pursued – collected with purpose; the evolving – collected by type; and the emerging – collected for its personal connections, and states that ‘displaying to others is key in many accounts of collecting’ (p3430). Watkins is discussing digital collection. Though the language and the format may differ the reasons that human beings, and by extension museums collect, do not. Watkins (2015) does note that, unlike Pearce’s (1994) material collectors, there are many difficulties present in exhibiting or sharing personal digital collections (Watkins, 2015, p3430), and that such personal collections can have an externally imposed lifespan (p. 3429). But these issues are less of a challenge for museum collectors, with access to more specialised tools, and greater scope to work around such problems, museum digital collections may actually behave more like material collections than they would for the average person. The real key to collecting digitally is identifying those objects which ‘you can do something with...’, ... make a point, [and] ... engage your

public' (Pearce, 1994, p202). Or as the Museum Association's *Collections for the future* (2004) consultation stresses, those collection items which are useful. While the nature of this usefulness in collection items is apt to change depending on period and perspective (Hein, 2000, p55-56), one of the few ways in which museums must treat digital collections differently than the physical is in deciding what aspect of the object they find it primarily useful to collect at the start of the process. Indeed it can be challenging deciding what exactly you are collecting when you collect digital items. When you collect Pac-Man for the Atari, are you collecting the computer code that makes the game, the ROM cartridge which stores it (and as such does this become a material, not digital collection item), or the experience of playing Pac-Man on an Atari? Or as Bonnet questions in *The Gift that Keeps on Giving: Preserving New Media Art for Posterity* (2015), do you aim to collect just artist Liz Rywelski's texts and the participants responses when collecting her piece *The Re-Gift*, or is the experience of communicating with the artist on an old Nokia keypad phone also essential to the piece? Do, in fact, digital collections always need to come tied to technological ephemera? This is somewhat addressed by the Variable Media Network's *Variable Media Questionnaire* (no date), a framework developed to help museum professionals acquiring new media art. The questionnaire addresses four main themes that are relevant to any sort of digital collecting, be it art, software or social media – storage, migration, emulation and reinterpretation (Bonnet, 2015, p4). Are you collecting a digital object as is in perpetuity – storage; do you intend to change the object so it remains functional – migration; do you intend to collect the experience of that object as recreated to the best of your ability – emulation¹; or to recreate the object in spirit – reinterpretation (Bonnet, 2015, p3). Though by no means mutually exclusive states – digital content is easily duplicated and so for the purposes of reproduction for conservation or exhibition is ideal – the malleability of digital collections is why establishing what aspect of an object you are collecting is so important.

Closely related to this is the challenge of making a more overt initial choice about what you are exhibiting when you exhibit digital collections. Digital video, photography and audio, provide minimal challenges, there is precedent aplenty for their exhibition, software and social media, however, are a more challenging proposition. With so many various interpretational options available the question of how you want visitors to use and engage with digital content is key when choosing digital objects and developing displays. When the Museum of London exhibited its collection of video games in 2016 they chose to migrate, and emulate some games, using a raspberry pi to run them, but invited visitors to play on original controllers, so the experience of the object was more authentic (Aravani, 2017),

1 The term emulation, is used slightly differently in computing than it is by the museums sector, to quote the Open Preservation Society 'By digitally recreating computer systems, emulation ensures that digital objects can be rendered in their native environments and thus maintain their original look and feel.' (no date), digitally rather than physically.

effectively making their choice to collect/exhibit the experience. By contrast the Internet Archive has migrated many of its games, emulating (in the computer sense) their run environment and allowing them to be played in-browser on modern systems (Internet Archive, no datea), others it has stored, making the original files available (Internet Archive, no dateb) their focus being on the code and form of the game. Both institutions have made obvious choices about what aspect of the digital object they are collecting, or rather that they are exhibiting: they have the option to re-display them to different effect with the same code. On balance though are these choices really all that dissimilar to the decision whether to display a Tudor portrait in a white box gallery or a simulated Tudor Hall? The primary difference it would seem between how physical and digital collections are treated when considering collection and exhibition is that we have to think in these terms much earlier in the collecting process.

The cases discussed above deal primarily with older works, where museums and archives have only had to make a choice of if they want to collect these objects and how to use them as part of their collection, now curators must often make the decision of what version of a digital object best fits their collection policy. As an example, take the game *Fallen London*, a text-based, story-driven game about an alternative London, produced by a London games company, which updates regularly, introducing new story paths and special events which respond to the real world – such as their recent in game election. This game fits perfectly in the Museum of London collections policy (Museum of London, 2011), it has a strong London connection and context, features a representation the city, has a simple provenance and even practically, as an HTML product is technologically eminently collectable. But, how, or rather when do you collect this object? Part of its value to the museum collection is the social commentary and context demonstrated in its timed special events. There is clear precedent in archives for the collection of part-works, serials, and multiple edition books, but should that inform how we collect in a constantly updating digital landscape? Is it practical to collect every software update of a game like *Fallen London*? Possibly, but it is not useful. Should we then aim to collect only versions of active digital objects of particular interest or relevance like collecting newspapers from the moon landing or coronation? Like material collecting pragmatism must be applied to collections decision; legal questions aside the Museum of London would struggle to collect every tweet geolocated in London, or every #London on any given day, though to do so falls within its remit. The sheer plethora of information would be overwhelming, rendering it useless to the collection as a whole (Museums Association, 2004). But collecting tweets, by location or hashtag, following major events, or based on specific accounts as the National Archive does (National Archive, no date), could well reward the effort and justify the disk-space required, emulating collecting those significant newspapers. Again, however, we are applying well-established ideas to a new type of object.

Collections like the Internet Archive raise one of the major issues created by digital collection: obtaining rights and doing due diligence. Though clearly something that digital collections have in common with material collections, with the rise of social media platforms, multiple ownership, freeware, shareware, abandonware, open source initiatives, creative commons licensing, and digital rental schemes, it becomes increasingly difficult to establish ownership of digital content, let alone obtain clear rights to it. Take for instance the Museum of London's project to collect Tweets about the 2012 Olympic games, establishing their right to collect and use these public utterances was fairly simple – a disclaimer linked to the use of the hashtag the museum collected ensured their legal standing – Twitter's GUI², however, was copyrighted and they could not obtain permission to exhibit it, and as such had to commission an interpretation of the raw data to be able to use the collection (Aravani, 2017). User created content aside, there may be a dozen or more companies involved in creating a software product like a video game – development studios, parent companies, rights holders, publishers, digital rights management software developers, even proprietary coding languages - some of which may be held by international corporations, which may no longer exist or may have been absorbed by other companies. Tracing an owner as part of due diligence, therefore, becomes challenging, let alone obtaining the rights to use and reproduce it. In fact, software is one of the few objects that can almost never be donated to a museum by a private individual in the same way a physical object, or even other, personal, born-digital objects like photographs can be. This said, as complex as collecting software may be the digital and the physical can seemingly legally be treated alike; user-generated born-digital works like videos and digital photographs fall under the same copyright law as those produced on film (Collections Trust, no date), and where the interested parties involved in the creation of software cannot be found it falls under the same orphaned works criteria as anything else, the only difference being the amount of effort it may take to 'carry out a diligent search for right holders' (Intellectual Property Office, 2016) to the IPO's standards. The protection of collected digital content is a different matter however, any digital or digitised content is vulnerable to re-use and misuse as has been evidenced by the disagreements between institutions like Wikipedia and the National Portrait Gallery (Fouseki, 2013). By their nature digital objects will always be more vulnerable to being copied when released online, but while this may place some restrictions on how a digital object is exhibited in the digital sphere, simply not putting particularly vulnerable objects, like collected video games, online, is as much an option as not displaying valuable material objects in an open case in the museum.

2 Graphical User Interface.

Practically, the question of preservation, or conservation of digital content (whether born-digital or digitised) is being well addressed by the industry through working groups like the Open Preservation Foundation and in advice collated by the Collections Trust, who interestingly declare 'Digital Isn't Different!' (no dateb). However like much of the literature on the subject the Collections Trust and ICOM, speak about digital collecting primarily in terms of digitised collections, and collection availability rather than born-digital collecting, leaving a significant gap in the literature on that front. Even the *Digital Benchmarking Toolkit*, (Collections Trust, no datec) deals only with digitisation when talking about digital collections. Though preserving digital collections requires specialist knowledge and the data must be revisited regularly to ensure its accessibility and integrity (MLA Renaissance East Midlands, 2008), such requirements are hardly very far from museums' approach material conservation. Indeed, many of the existing collection care benchmarking standards (Dawson, 2011) can easily be tweaked to apply to digital collection conservation; and with tools like JHOVE³, and a good anti-virus program could score quite well, at least in Housekeeping (p20-23). Ideal digital storage (RAID⁴ set-up, with off-site, off-line back-ups) can, of course, be prohibitively expensive, but so can many ideal material storage solutions. But by far the best argument that digital collections can be treated like material ones comes from the latest draft of SPECTRUM itself: 'born-digital items such as original artworks or oral history interviews that were created in digitised form ... should be managed as you would any other (physical) item in your collections.' (Collections Trust, 2017, p124)

All due diligence done, storage servers set-up and digital object fully inducted into the collection, what makes it any different to the reams of digital supporting data already generated for the material collections, or digitised collections data. Intention. All collecting happens with a core intention that changes the nature of the object collected (Pearce, 1994, p202). To make a flawed analogy, how is the bookcase that the V&A collects to exhibit the evolution of its design, different from the bookcase in the office of the curator who collected it. They have the same inherent purpose, only one, by virtue of what it exemplifies has been divorced from that purpose by being collected (Hein, 2000, p51, 55), the other, whether because it does not fit the collecting policy or is an unnecessary duplicate of an existing collection object has not. Digital supporting information is as potentially collectable as the curator's bookshelf, its distinction is it has no use in and of itself as a collection object, either because it duplicates (like digitisation) existing items, or is not relevant to the collection, and that is a decision that must be made based on the collections policy. The artist interviews involved in the *VMQ* may only support the collection

3 JHOVE 'is an extensible software framework for performing format identification, validation, and characterisation of digital objects' (Open Preservation Foundation, no dateb).

4 Redundant Array of Independent Disks, as system of paired disks where data is written to both, but only one is in active use, providing an instantaneous back-up.

in an art museum concerned primarily with the work of art, but if the artist was a Londoner and their art collected by the Museum of London that interview may well warrant acquisition on its own merit – the fundamental point being it is in line with their collections policy.

Despite their many nuances digital collections, in most ways need to be treated like physical collections, the leg work may be slightly different, the due diligence significantly harder and the conservation perhaps a little easier, but these differences of degree are present in any type of physical collecting. Yes exhibiting digital objects can be a challenge, but they have the benefit of versatility, and while plastic controllers and other technological ephemera may begin to degrade and it become more of a problem to emulate the experience a digital object was collected for, substitutes can be found and replicas made with increasing ease. With ever-growing amounts of digital information there are only two significant differences between how museums need to treat digital and material collections; they need to look very closely at their existing collecting policies and apply them rigorously to the questions of what digital objects they should be collecting; and once decided they should go out and get them, because one thing born-digital objects do not necessarily lend themselves to is donation. There is so much digital content in existence that museum's hardest task should be deciding what is collectable (Pearce, 1994, p193), and really, nothing is ever entirely erased from the internet, so museums can afford to make decisions now about digital content that they may want to revisit later, in exactly the same way they do about physical objects. It is to be hoped that, in the future, the realisation of the deep similarities between digital and physical collections, will have an impact on museums' willingness to collect what is now a large part of millions of people's everyday lives.

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