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IT'S ALWAYS IN MY BAG, MY LITTLE TRUSTY USB

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This paper draws from a study we conducted to examine one particular form of 'halfway media' (Sterne 2007, p. 23): USB portable flash drives. Portable storage media are significant in that they are generally understood as personal media while their use often intersects and combines in complicated ways with institutional (tertiary study, for example) and corporate uses. And yet, despite their continued importance, very little is understood about their patterns of personal use. While there is a vast literature on mobile media and communications, and a smaller yet significant literature on portable music storage devices (Sterne 2012; Bull 2008) and other portable objects (Ito, Okabe and Anderson 2009), very little work has been done to date specifically on more general portable storage devices, such as USB portable flash drives, and associated practices of use. To recast Gitelman's words (2008, p. 4), our interest, then, is in examining the ways that established media technologies are experienced and studied as contemporary subjects.

Drawing from interviews with 14 consumers of portable storage devices (recruited according to convenience and snowball sampling, and across cultural and demographic differences), this paper focuses on the data retention and data ordering practices of individual end users, and why these devices continue to be of practical use, as well as why they hold personal, social, and enduring economic significance. In particular, we explore how they tend to exist in a kind of (mobile) middle ground between the 'immaterial' and more emergent practices of 'cloud computing' on the one hand, and other established forms of more centralised data storage, such as on the harddrives of home computers or the shared drives of work-related networked computers, on the other hand.

Michael Arnold argues that paradox and contradiction are at the center of our understanding and usage of mobile media technologies. In this sense, Arnold (2003, p. 234) argues, they are very much 'Janus-faced' technologies, 'always and at once pointing in different directions': they facilitate independence as well as co-dependence, lead to a greater sense of vulnerability while also providing reassurance, facilitate social proximity at the same time as allowing greater geographical distance, blur the public

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and the private, and so on. Building on Arnold's arguments, in this paper we take a line of enquiry that attends to the ambiguous, contrary tensions present in our personal data management practices on USB portable flash drives.

The crucial affordance of USB portable flash drives is their mobility. As portable objects they are subjected to various forms of physical mishandling which highlights the limitations of their material form. The more significant the content, the less likely the portable device will be regularly transported. The smaller the device, the quicker it is expected to be lost unless attached in some way to a less mobile object. USB portable flash drives have reduced drastically in price to the point where they can be considered 'disposable'. If broken, lost or unavailable, it is always possible to buy another. As disposable objects, they require little regard for care. They can be left at the bottom of bags, in jean pockets, or thrown around on key rings. Adding to this sense of disposability is the regularity with which they are gratuitously dispensed as promotional materials. Assumed to be readily available, it is problematic to assert justification for return of USB portable flash drives that have been loaned. Yet there is little expectation that they will be loaned given the assumption that everyone has access to at least one USB portable flash drive of their own.

There is tension between the 'fragility' of the media object, which easily breaks, and the 'persistence of immaterial and intangible content' (Magaudda 2011, p. 26). The higher the capacity of a USB portable flash drive, the higher the failure rate, yet significant personal documents, such as photos of children and personally meaningful content, is stored on multiterabyte USB portable flash drives with a temporally indeterminate future of failure.

This paper will describe the key tensions that emerged in our interview data on portable media storage as halfway media across three areas of significance. These are summarised below:

Portable and static

USB portable flash drives serve as archives of personal histories. Data management processes are idiosyncratic, sentimental, and reflective of transitional states of being. As one participant describes the contents of their USB drive: 'if the files were two years old I would ... delete them without thinking but if the files are six years old I think that's kind of a snapshot of who I was then'. Also, once hard drives become inaccessible or obsolete through succession, they are retained with no clear idea of their ongoing purpose.

Vital redundancy

Redundancy is a security measure in data management strategies. Duplicate files serve as insurance against loss or corruption, yet there are often few barriers of preservation between copies. For example, multiple versions of the same document are stored on the same USB portable flash drive, and drives used to backup content from other devices are often stored adjacent, in close proximity, or even attached, to the primary device they serve as back-up for. Curating content as it is transitioned from 'front-end'

use to 'back-up' storage is time-consuming, so it is often 'dumped' in bulk when transfers are necessary in creating a surplus of nonessential data that obfuscates the essential objects. Further, when it comes to finding files previously stored, participants rely on time-stamping and metadata based searches rather than logical file and folder naming strategies.

Obsolescence and interoperability

Practices of use around USB portable flash drives intersect with uses of pre-existing and new forms of data storage and assemblages, such as email, institutional protocols, and cloud computing, which highlights how established technologies are often employed to work around issues with newer technologies and sociotechnical structures. The socio-technical imagination of cloud computing signals a de-emphasis of the materiality of technology, yet attempts to make use of the affordances of cloud computing brings to attention a host of material and substrate limitations, such as data upload speeds, institutional policies governing application installations, and access costs. USB portable flash drives are then (re)employed to circumvent such limitations.

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