**NOTLEY — Data Centers**

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**Data Centers as Personal Memory Mediators**

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Social media sites and mobile phones are routinely used to capture, create, store, and share personal memories (Keightley and Schlesinger, 2014; van Dijck, 2010). As our ownership of digital devices and our use of social media sites increases, our capacity to amass personal memories grows and our need for external memory storage expands. Data centers—also referred to asserver factories and data warehouses—are the fixed sites that are increasingly used to store personal memories that have been uploaded to social media and other cloud-based services. This makes data centers among the most important infrastructural installations for the production and maintenance of global connection and for what we refer to elsewhere and in this paper as ‘globital memory’ (Reading 2010; 2015).

The number of data centers has been steadily growing for more than a decade, and one of the drivers for this growth is the uptake of cloud-based services. One data market research company estimates that ‘the number of data centers being built around the world will continue growing until it peaks at 8.6 million in 2017’, while the amount of data center space worldwide ‘will grow from about 1.58 billion square feet total in 2013 to 1.94 billion square feet in 2018’ (International Data Corporation 2014). Despite these quite remarkable growth trends, our knowledge of data centers is often obscured by business rhetoric and commercial secrecy. Very few of us know where our personal data is being stored, who it is being shared with, or the territories through which it moves when we or others seek to access or retrieve it (Blum, 2012; Mosco, 2014).

Beneath the surface and fuelling the growth of data centers is commercial discourse suggesting that digital memory is far more reliable and has a greater capacity when compared to our human memory. The company Memolane, for example, promised to capture ‘your entire online life in one timeline, making it easy for you to travel back in time and re-live great memories. Whether you’d like to re-discover your holiday of a lifetime, re-live that great party last week or get all nostalgic about when the kids were little, now with Memolane it’s easy to keep the memories alive’ (Memolane, 2011). Given these claims, it is ironic that this personal memory storage company collapsed just a few years after it began, and the digital memories people stored on its service were erased on only short notice (Memolane, 2014). Digital memory—as we can see from this example and many others—is far from infallible.

The expansion and vulnerabilities of cloud services and remote digital storage industries raise important questions about their political economy and impacts. Recent research in the humanities has highlighted the environmental and social impacts of data centers, particularly in the US and European context (Reading and Notley, 2015; Hogan, 2015; Carruth, 2014; Kitchin, 2014; Maxwell and Miller, 2012; Parikka, 2011). However, there remain many gaps in this limited academic literature, particularly when it comes to examining social and personal impacts in relation to individual and collective memory. In addressing this gap, this paper asks what our ‘globital memory’ means and looks like to data center users and to the different actors that play a role in the data center industry.

The globital memory field, which seeks to understand the synergetic combination of digitisation with globalisation, is an emergent concept within the field of memory studies. Globital memory is best understood as a cultural field that involves uneven struggles by memory agents to mobilise and secure assemblages of memory with memory capital through connective and mobile technologies. The memory ‘assemblage’ has multiple nonlinear trans-medial trajectories and connectivities that may be uneven and contradictory; these trajectories traverse conventional communicative binaries that have framed many understandings of cultural and mediated memory, such as body-machine, analogue-digital, public-private. Memory assemblages within the globital memory field are a composition of things and bodies with utterances and expressions. The assemblage’s mobilities and securities may be analysed in particular domains across six trajectories that include its transmedialities, velocity, extensity, valency, viscosity, and modality (Reading, 2010).

Since the data center is now one of the key domains through which digital memory assemblages are mobilised and securitised, in this paper we seek to analyse how globital memory involves the movement of assemblages of data through fixed points, which in turn serve to enable the multiple trajectories and transmedialities within the globital memory field.

To explore this issue, we examine discursive artifacts that illuminate the complex corporate rhetoric that serves to define digital memory, and we compare this with the material realities of data centers. Extending this analysis, our research then asks: What do data center users and workers expect of the data center and cloud service companies that store our personal memories, and how does this correspond to practices and codes of conduct? To analyse the space of server farms, we examine the rhetoric and reality around the development of Western Sydney as a ‘data centre technology hub’ for Australia. In particular, this pilot research, part of a larger research project, analyses the commercial rhetoric surrounding a single large data center situated in Western Sydney. The analysis draws on examples from news reports as well as stories by local business networks and from the company itself. This is rearticulated through examples of on-the-ground experiences and imaginaries of people in the region in Western Sydney gathered through online discussions as well as a discussion group and pilot interviews with Western Sydney residents whose everyday lives and knowledge practices are experientially situated within the new technology hub in Western Sydney.

We argue that, in part, public understanding of our role as memory agents within globital memory is largely determined by metaphors and rhetoric that serve to create digital imaginaries. To see how these imaginaries work, we ask: How do we experience personal memory when it is no longer contained within us or nearby us, but rather is stored remotely in data centers? When we send our data to these places, do we see the physical spaces they inhabit, including the companies and their workers who ‘watch over’ our personal memories? What do we expect of these people and companies, and how does this correspond to their motivations and codes of conduct? Or are the behaviors of these intermediaries mostly rendered invisible to us because, for example, we just don’t care or because these actors are concealed by opaque, vague, or misleading corporate rhetoric?

By analysing the discursive rhetoric that exists in relation to globital memory within the grounded context of the emergence of data centers in Western Sydney, this paper offers original empirical material framed through new theoretical insights linking in much-needed ways work within memory studies, media studies, and the digital humanities. By connecting commercial rhetoric with on-the-ground, everyday knowledge and memory practices, the paper highlights the contradictions and frictions that exist between corporate and digital memory rhetoric and the material realities of data centers.

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