



Data Excess in Digital Media Research

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**Natalie Ann Hendry
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Contents

| | |
|--|-----------|
| List of Figures | vii |
| About the Editors | ix |
| About the Contributors | xi |
| Acknowledgements | xiii |
| Chapter 1 Introduction: Digital Data, Research Ethos and Haunting | 1 |
| <i>Natalie Ann Hendry and Ingrid Richardson</i> | |
| Chapter 2 Reframing Data Excess | 13 |
| <i>Rowan Wilken</i> | |
| Chapter 3 Unanticipated Excess: Inescapable Moments and Uneasy Feelings | 25 |
| <i>Ben Lyall, Josie Reade and Claire Moran</i> | |
| Chapter 4 The Digital Mess of a Digital Ethnography | 39 |
| <i>Clare Southerton</i> | |
| Chapter 5 ‘Digital Hoarding’ and Embracing Data Excess in Digital Cultures Research | 55 |
| <i>Natalie Ann Hendry</i> | |
| Chapter 6 The Epistemic Culture of Data Minimalism: Conducting an Ethnography of Travel Influencers | 69 |
| <i>Christian S. Ritter</i> | |

| | |
|---|-----|
| Chapter 7 Embodied Excess: Interpreting Haptic Mobile Media Practices | 87 |
| <i>Jess Hardley and Ingrid Richardson</i> | |
| Chapter 8 Re-engaging With Excess Data: Newbie Researchers, Tumblr and the Evolving Research Event | 105 |
| <i>Navid Sabet</i> | |
| Chapter 9 Museums, Smart Cities and Big Data: How Can We Transform Data Excess Into Data Intelligence? | 123 |
| <i>Natalia Grincheva</i> | |
| Chapter 10 Evaluation, Digital Data and Excess(es) in Health Interventions | 139 |
| <i>Benjamin Hanckel</i> | |
| Index | 155 |

List of Figures

Chapter 4

| | | |
|-----------|--|----|
| Fig. 4.1. | Author’s Replication of Mattel’s Barbie Instagram Story, 20th March 2020. | 46 |
| Fig. 4.2. | Author’s Replication of Facebook COVID-19 Information Pop-Up, 15th August 2020. | 47 |
| Fig. 4.3. | Author’s Replication of Social Media Posts Captured in 2020 (Original Screenshots Not Included to Preserve Privacy and Copyright). | 49 |

Chapter 6

| | | |
|-----------|---|----|
| Fig. 6.1. | Clusters of a YouTube Recommender Network. | 79 |
| Fig. 6.2. | Cluster of Ultra-High-Definition Vlogs About Walking Tours. | 81 |
| Fig. 6.3. | Cluster of Videos About River Cruises. | 82 |

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About the Editors

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Chapter 1

Introduction: Digital Data, Research Ethos and Haunting

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Abstract

What do we do with the excess data from our research? ‘Excess’ – particularly in digital media research – is inevitable. It emerges in the research process as the ‘debris’ and ‘leftovers’ from planning, fieldwork and writing; the words cut from drafts and copied to untouched and forgotten files; and the data archived but never analysed or published. From our conversations with colleagues, to our call for contributors, we repeatedly heard researchers’ stories of digital data overflow, as they shared a collective sense of excess data as *something more* than that which is simply left out of formal research outputs. Digital excess, in particular, holds discursive flexibility: it points to abundance and possibility but also to our failure to control or contain information. Excess data matter, but how and why they do is somewhat opaque and largely underexplored.

This book, *Data Excess in Digital Media Research*, is a dedicated collection that pays attention to excess data. We position ‘excess’ as a conceptual, methodological, ethical and pragmatic challenge and opportunity for digital media research – we examine what happens when media researchers return to their surplus archives and explore the labour and affects surrounding data overflow and excess. We suggest that data excess is – or should be – a central concern for digital media scholars because of the methodological characteristics of digital media research, the ‘research ethos’ around data excess and the unexpected affects and ‘hauntings’ of excess data. This introduction provides an overview of these concerns and outlines each chapter.

Keywords: Digital media; digital research; digital data; data excess; digital ethnography; research methodology

Data Excess in Digital Media Research, 1–11

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Introduction

What do we do with the excess data from our research? What do we do with what is left over? ‘Excess’ – particularly in digital media research – is inevitable. It emerges in the research process as the ‘debris’ and ‘leftovers’ from planning, fieldwork and writing; the words cut from drafts and copied to untouched and forgotten files; and the data archived but never analysed or published. Digital excess holds discursive flexibility: it points to abundance and possibility but also to our failure to control or contain information, a shared experience of never having enough time or resources to tie up all the loose ends of our theorising, thinking and writing. Sometimes, we might return to this excess and transform it into something more productive or purposeful, but often, it remains unacknowledged or cast aside in our research endeavours.

And yet our lack of attention to excess data does not mirror how intensely familiar it is to us as researchers and scholars. Excess data hold intimate impressions (and burdens) on us and symbolically mark our unfinished labour. As editors of this book, we are cognizant of the imprints of excess data in our own work and explicitly recognised excess’ hold when we separately presented our work in seminars at the Digital Ethnography Research Centre at RMIT University in 2020.

From our conversations with colleagues, to our call for contributors as we compiled this book’s proposal, we repeatedly heard researchers’ stories of data overflow, as they shared a collective sense of excess data as *something more* than that which is simply left out of formal research outputs. What was striking to us was that grappling with this excess was common among *all* scholars of contemporary media culture, at times experienced as a lost opportunity but also as a kind of affective intensity or embodied response to its presence. The problem of ‘too much’ digital data or information is now mundane; the volume and overwhelm produced by the digital is not exceptional. For Clay Shirky (2010), this broader problem is ‘not information overload. It’s filter failure’. But for researchers, is data excess merely a filter problem? How then do we imagine and enact filters and boundaries for research to manage material, theoretical and pragmatic overload? How can and do researchers or projects embrace excess, even if only in the early brainstorming stages of project development? What opportunities might excess offer us for different methods, processes and modes of analysis or conceptual thinking? Such questions point to why this book is important – we are familiar with this excess but there has not been a collective interrogation of what it is or how it functions in our work. Excess data matter, but how and why they do is somewhat opaque and largely underexplored.

While these challenges and feelings of excess and too much data are familiar to qualitative and quantitative scholars alike, they are especially critical for digital media researchers. Media, internet and technology researchers know the possibilities and problems of ‘excess’ and ‘TMI’ – too much information – intimately. Not only does the (often unrealised) promise of big data to capture everything haunt our projects, but our media and technology interests and digital fields are expansive and perpetually being made and remade as content and data are

reposted, shared and circulated through devices, apps and platforms. Our research projects and sites may end, but our research histories continue to follow us on social media through algorithmic and archival functions. This speaks to both the characteristics of digital data as much as to how we approach our research as a knowledge-making practice.

This book is a dedicated collection that pays attention to these and other dimensions of excess data. We position ‘excess’ as a conceptual, methodological, ethical and pragmatic challenge and opportunity for digital media research. We examine what happens when media researchers return to their surplus archives and knowledge and explore the labour and affects surrounding data overflow and excess.

We suggest that there are, at least, three reasons why data excess is – or should be – a central concern for digital media scholars. These interconnected concerns relate to the methodological characteristics of data collected through media research, the ‘research ethos’ around data excess and the implications of inclusion and exclusion, and the unexpected affects, productivities and ‘hauntings’ of excess data. Each of the chapters in the collection responds in some way to these concerns and grapples with the implications of excess data in different contexts and under different social, cultural and political conditions. Attending to these three concerns offers not only reassurance to other scholars confronting similar challenges but also provokes us to ethically reconsider what we do, or do not do, with excess data in our own research practices.

Methodologies of Excess in Digital Media Research

This book explores data that are inherently digital in form as well as data concerning the digital – digital practices, digital cultures and digital politics – that may or may not be collected as digital content. This distinction is, of course, slippery, especially as we might transform non-digital data to digital data through the research process: conversations are recorded and transcribed into digital documents; group workshop notes on poster paper are photographed, uploaded and tagged in research management software; and field notes and concept maps are scanned into laptop folders. We might do this for many reasons: work efficiency, safe care and stewardship, indexing and classifying, analysis or statistical processing.

The transformation, and often multiplication, of digital, material and bodily traces and objects happens through our actions: scanning, transcribing, copying, converting, formatting and reformatting, publishing and circulating. These activities amplify what comprises data and produce excess through transformation, often to make research work more efficiently or available ‘all in one place’ across screens, digital folders and archives. Likewise, much of the paradata we work with – the ‘by-products’ of research like letters, interviewer notes and correspondence (Goodwin et al., 2017) – are digital too. This includes emails to informants to confirm interview times, digitised lists of codes and notes, scanned ethics consent forms, notifications of new instances of keywords or hashtags on

the platforms we are tracking and other mundane research processes such as saving and archiving screenshots to augment researcher memory. In her observation of health workers' use of TikTok and other social media platforms in Chapter 4, *Clare Southerton* considers the excess and seemingly 'unrelated' screenshots within her digital ethnography project during the COVID-19 pandemic. Southerton returns to these 'offcuts' alongside her recollections of her social media use during the pandemic, as a 'layering of everyday experiences'. Her work reveals the 'messy entanglement' of digital ethnography which has been intensified during pandemic lockdowns. Southerton seeks to think through the more-than-digital boundaries implicit in qualitative media and digital ethnography research, via an analysis of 'excess' screenshots.

Digital data and digital formats also pose issues related to digital data's quantitative differences (e.g. accessibility and volume of data) rather than qualitative (e.g. visual versus textual data) characteristics (Quinton & Reynolds, 2018). Yet these qualitative and quantitative characteristics of digital data are entangled. In Chapter 6, *Christian S. Ritter* addresses this problematic, drawing on ethnographic fieldwork with travel influencers to critically explore the collection of what he terms 'natively digital data', or data that is retrieved through the data infrastructures and algorithmic recommender systems of platforms such as YouTube. Such data can be analysed through computational network analysis and network visualisations, which differs from the more nuanced analysis of ethnographic material. At this methodological intersection, Ritter considers the 'boundaries' between these two forms of data, and how the integrity of the latter might be strengthened in the age of big data.

The volume of data available to us depends on different material, social and symbolic constraints. For example, what we can record from Instagram as researchers 'lurking' on a food cafe profile is different from the data available to social media managers with access to engagement metrics for that profile. Again, what data are, or could be, is very different for engineers working to modify the Instagram interface as compared to the data that researchers, managers, cafe owners and the public scroll through. The data available for this imagined food cafe is multiplied, not only through multiple posts ordered on the cafe's grid, but via posts that are reshared as Stories, reorganised on the profile's highlights or shared by loyal customers who follow the cafe and repost content to their own profiles or other platforms. Our data have materiality, whether through devices and hardware, and the metadata related to these digital traces and relationships also offer another layer of networked and aggregated data. As follower metrics and geotags become linked to photographs and comments, these likely change as data move between and through platforms, devices and servers. Digital data produce (more) digital data. This digital accessibility to a platform's digital data and content is shaped by the social and technological engagements of different people, groups and devices. This, consequently, produces different forms of digital data. Extracting data from digital platforms, software and apps is not necessarily simple, as this changes what is already an unstable context, impacting how the data are then used and understood socially, and whether the relationships that are part of the data are removed or ignored.

As Ritter's chapter highlights, big data offers a particular challenge as a source of excess digital data. The promise of big data is that we can make our boundaries expansive, make everything important and make it all matter. Being able to include everything – another part of the promise – will allow us to better calculate what is happening now and what will happen in the future. As digital researchers we are more cautious about whether the promises and claims of big data do, or could ever, become realised. As [Annette Markham \(2017, p. 512\)](#) suggests, the 'value... of big data is overstated, many faulty logics and premises about data, truth, and algorithmic computation can end up influencing how we make sense of the world around us'. In response, Markham frames data as both a thing and an ideology and argues that we need to focus our attention on interpretation rather than data collection or the data themselves. Here, we might add that how we understand data as excess (or not) is part of this attention to data interpretation, not only collection. What we might have once discarded as excess or leftovers may require closer attention to test any potential faulty premises about our data and how we understand our research contexts and the broader world.

Assumptions about digital data shape not only claims made about research findings but also how researchers engage across interdisciplinary divides and research domains. Writing about digital ethnography within the field of youth mental health, in Chapter 5, *Natalie Ann Hendry* explores data excess as potentially productive through the concept of 'digital hoarding'. She highlights how digital archiving practices that eschew coherent hierarchies, neat, organised digital folders or a clear sense of why data has been archived offer an approach to research that champions creativity and curiosity. Hendry shares her fieldwork processes where this excessive digital data, hoarded in chaotic folders and often multiplied many times over, is generative rather than constraining.

Ethics, Visibility and Waste

Excess data emerge through the research process. The conditions that produce excess data or designate certain research objects, products or processes as excessive are varied and exist not only because of the characteristics of the digital, as the chapters across this collection illustrate. We might also identify data as excess because they fall outside our research foci at a specific time and place, or because they are not helpful in addressing key themes and research questions. Perhaps they are discarded in the process of searching for key terms in transcript texts, or when data is 'cleansed' as irrelevant in Twitter scrapings or image files.

Rather than simply noting that excess data are only what remains outside our inclusion criteria or scope of interest, we suggest a broader take on the overlapping research practices of data identification, selection, collection and analysis. We wrap these research activities together through the notion of 'research as ethos'. By focusing on research ethos, we are engaging with Lauren Rickards, Wendy Steele, Olga Kokshagina and Oli Moraes' (2020, p. 3) work which shifts *research impact* towards *research ethos* in a way that 'does not externalise "the real world" but sees academia as part of it and researchers as partners within

dynamic innovation ecosystems, willing and able to use their unique capabilities to help generate the positive transformational changes needed'. In this way, data selection and analysis are bound up in knowledge-making, dissemination and translation (now and into the future), rather than simply a discrete, post-research event, where the context of research programmes, fieldwork processes and community and stakeholder interactions take on particular importance.

Here, excess data are not represented, controlled or contained; they might be raw data, waiting for some sort of process, ritual or practice to be transformed. These data might become part of our research through automation and data scraping, or data collected, stored and not 'analysed' or engaged with. What becomes excess in research holds an implicit judgement that it does not fit our research ethos. That is, what constitutes excess data, or not, involves *ethical* decisions. We produce hierarchies and criteria and (re-)designate data as being valuable or not in line with how our research is entangled with our social, political and ethical worlds. While our methodologies shape what is and can be understood as research data, our experiences and values as researchers also shape how data are made, in any given moment, period, context or place, as excess. This is particularly the case in our decisions about how to reconcile big data sets with diversity, or how to faithfully and inclusively capture the spectrum of lived experience. As *Ingrid Richardson* and *Jess Hardley* explore in Chapter 7, everyday mobile media practices are culturally and corporeally variable and idiosyncratic, reflecting the never-settled 'multistabilities' of our human–technology relations. They point out that in ethnographic research, the documentation and interpretation of such complexity can only ever be partial, as variation can be found in every 'body' – or to put it another way, our embodiment of media interfaces is always contingent on a myriad of intersecting factors including gender, age, location, socio-economic and cultural context, media and technical literacies, bodily dis/abilities and differences and the 'mess' of feelings and affects that accompany all our communicative practices. Translating lived experience into published outcomes is inevitably an act of constraint, as we continually make ethical decisions about what aspects of that experience to include or leave out.

Data excess is a problem – or opportunity – that speaks to the boundaries and scope of our inquiries and research ethos. The work that produces and defines our fields of research often happens – materially and discursively – at the borders of inclusion and exclusion: how we continually define the parameters of what data are scraped; how we engage with sorting processes to 'clean up' data that are deemed irrelevant now or later to our research interests; and how we talk with colleagues and communities about what remains within our data sets. Our research questions do this boundary work too. We are also responsible to our informants and participants, our research fields and assemblages, our communities and contexts. Is it ethical to archive excess data without making it productive for others' or towards social change? Is it more ethical to close a data archive if we cannot control how it might be used in the future?

Boundaries of a field and what constitutes it are *produced* through research rather than being an existing pre-research phenomenon or simply what we might see within an app or browser window. For digital ethnographers and media

researchers, what we notice does this boundary work: what we record, note, track and write. In his analysis of the boundary work we mobilise around what comprises *enough* data, *Rowan Wilken* addresses the crucial issue of data saturation within qualitative media research in Chapter 2. What does one do with data that is considered to reside outside the parameters of sufficiency, or data that never makes it into reports and publications and might otherwise be perceived as research waste? In this chapter, Wilken revisits the excess data that was gathered as part of a large collaborative research project investigating locative media and explores its contextual significance and ongoing relevance through Jacques Derrida's (1987) framing of *ergon* (work) and *parergon* (that which is outside the work) as well as reflections about methodology and *method assemblage* from John Law (2004). Wilken argues that data excess is not surplus but rather exerts 'its own "presence" prior, during, and long after papers have been presented, publications have appeared, and projects have wrapped up'.

Excess data also emerges not only in what we collect, collate, record, filter or scrape in our research endeavours but is also produced by the very technologies and media we research. Part of the promise of digital data intermediaries or platforms is that large volumes of data potentially offer more precise, intimate or predictive insights into our worlds. Digital technologies and media produce, record and archive excess data through user interactions. As noted in the section above, we can also consider interdisciplinary or transdisciplinary approaches to knowledge-making that cross the boundaries of disciplines, fields and institutions. For researchers working between fields and industries this is often a pragmatic issue, as different contexts have different values in terms of what counts as 'enough' evidence. We may need to embrace a research ethos that understands the value of different data with different characteristics, where some may be understood as excess in different contexts or methodological frames. Analysing or writing away excess, as required by different research or translation frameworks, may remove the complexity of social and digital life. *Benjamin Hanckel* explores this issue in Chapter 10 and discusses how research that aims to evaluate the efficacy of health interventions often removes data excess in the hope of transforming data into 'success measures'. Evaluation models are extractive or are imposed on (or over) data and omit research leftovers that might otherwise offer useful insights into complex systems or contexts. These top-down frameworks need to be reimagined, Hanckel argues, so that engaging with complexity includes engaging with excess data, thus better addressing health inequalities and inequities.

Further, if we understand research or knowledge translation as a process of translating academic research for a public audience or 'industry stakeholder' group, the excessiveness of academic vernacular is carved away for shorter, sharper sentences and clarity that removes nuance, complexity or authenticity. Excess then is the 'too much' or over-the-top intensity of academic doing, thinking and writing that becomes valueless and too fussy or unhelpful 'out there' in a progress-driven world. This process is not an afterthought of research. We craft our writing and work through assembling and casting off words and ideas as an ongoing practice, rewriting knowledge for different and often multiple audiences.

At the same time, excess data may also be a problem of increasing academic pressures to publish and discard data that doesn't neatly fit a project or topic, or perhaps it is an ethical problem as we actively or even unintentionally collect 'too much' data. Much of the work we do sits beyond the boundaries of academic books, journal articles and reports, as many of our contributors attest to in their chapters. Even as creative and innovative ways of doing and communicating research strive to better incorporate complex, experiential and iterative approaches; such methods also face significant challenges in addressing the complexity and excess of scholarship.

Graduate students and others new to digital media research will inevitably face these challenges of too much data: what is 'enough'? How much is too much? Of course, this challenge is not unique to digital researchers; scoping and defining research boundaries is perhaps a central problem across different research traditions, methodologies and practices. In part, this book seeks to provide early career researchers with narratives, methodological approaches and conceptual tools to manage data excess as part of a broader research ethos.

Affect, Haunting and Unexpected Discovery

In our third rationale for the importance of excess data, we argue, alongside our contributors, that excess data generates unanticipated but potentially productive outcomes and experiences. As we explored earlier in this introduction, while excess data are *produced* through research, these data are *productive or creative* themselves. This excess offers something unintended, not only the potential for data to be attended to or transformed into something different and thus becoming no longer that which is 'leftover', but the possibility of revealing emergent material, social, affective and political effects and often unanticipated implications.

For *Natalia Grincheva*, engaging with digital excess across multiple sites – for her, integrating big data in the context of galleries, museums and other cultural institutions within 'smart cities' – generates new ways to transform others' excess or superfluous data. In Chapter 9, Grincheva highlights how data excess is generative as creative data practices produce new problems, new methods of data visualisation and new opportunities. She asks how might we transform data excess into data intelligence? This chapter takes seriously the digital transformation of museums across physical and virtual realities – beyond material archives or traditional spaces of heritage preservation – and considers how museum big data can drive and enhance smart cities and urban planning across multiple sectors, including environmental protection and transportation. To these ends, Grincheva offers a three-dimensional framework for integrating digital data within smart cities and suggests data resources, data republics and data impacts as key components in the repurposing of museum data.

In part, the generative qualities of excess data emerge from the temporal instability of classifying data as excessive. Unlike other ways to categorise data, including paradata or metadata, excess data do not have any inherent qualities or characteristics. They are data with no purpose *at that time*, or they are *at present* too much or *for now* unintelligible. Excess data are transitional and hold