

NOODLE, NOODLE, CAT: EXTRA- SUBJECTIVE AUTHORSHIP IN WEB- BASED ART PRACTICE

CHARLOTTE WEBB

Written aspect submitted in partial fulfilment of the requirements
for the Degree of Doctor of Philosophy (PhD),
Chelsea College of Art and Design,
University of the Arts London,
February 2017.

ABSTRACT

This research investigates the complexities of artistic authorship under the production conditions of the web. It is driven by a fascination with the possibilities of expanding the authorial sphere of the artwork to include the productive capacities of other subjectivities, entities and processes. I offer the neologism 'extra-subjectivity' to reflect on this emerging form of production, in which the ultimate manifestation of the artwork often exceeds the author's intentions.

As well as the written thesis, it comprises seven artworks that represent a distinctive approach characterized by playfulness, humour and the use of generative computational processes. Several early works explore my authorial agency in relation to algorithmically generated variations of texts, including William Blake's poem *The Fly* and the song *Puff the Magic Dragon*. Later, algorithmic generation is combined with the appropriation of content shared on social media, as in *Infinite Violets*, which displays variations of a Shakespearean verse along with images from Flickr.

I draw on digital sociological methods to create a hybrid approach in which the web is understood as an evolving medium made up of digital objects and devices that can be repurposed for art practice. This approach underpins *Flickr Nude or Noodle Descending a Staircase*, which uses images programmatically accessed through Flickr's application programming interface to remake a Marcel Duchamp painting for the web.

Selfie Portrait displays Instagram photographs tagged with 'Selfie' alongside users' biographical information, which drives the 'Copyright Episode', an extended account of the legal contexts surrounding web-based art practices. Here, I demonstrate how such practices are entangled socially, ethically and legally with the distinct production conditions of the web. I argue that authorship is a question of responsibility as well as 'ownership', which is why ethics are as important as the law.

ACKNOWLEDGEMENTS

Firstly, I would like to express my sincere gratitude to my supervisors. It has been a pleasure and a privilege to study under their expert guidance. Dr. Linda Sandino has been an impeccable guide and a pillar of strength. Her incisive questioning and critical commentary stretched my intellectual capacity throughout the research, and our supervision meetings always energized and recalibrated me when I doubted my abilities. My heartfelt thanks go to Dr. Tim O'Riley, whose artistic sensibility and wisdom I can only aspire to. I am grateful to Professor David Garcia for providing subject expertise and insights into digital culture, and Dr. Mary Anne Francis for supervising the initial stages of the research. I would like to thank the CCW Graduate School for funding my attendance of the Digital Methods Initiative Summer and Winter Schools, which were transformative for my practice and shaped the development of the research.

Many people have entered the sphere of this PhD, supporting and encouraging me along the way. I am particularly grateful to the following: Dr. Marsha Bradfield and Dr. Aaron McPeake for supporting me during the confirmation process;

Silvia Baumgart for guiding me through issues of intellectual property and copyright, and providing incisive feedback on the Copyright Episode; Emma Clements for proofreading; Mars, aka #phdcat, for his company and social media prowess; and friends who have tolerated my absence and given me moral support.

This research would not have been possible without the generous practical and financial support of my family. I am deeply grateful to Arthur Webb for his technical expertise in programming the artworks, and his intellectual curiosity about this research. Thanks also to Kathy Webb for her unwavering practical and moral support. I want to dedicate a special thank you to my late grandfather Professor Bernard Neal, who inspired me to pursue an academic path, and to my grandmother Liz Neal, who inspired me to be an artist. Finally, thank you to my husband Mark for his boundless patience, support and love.

ARTWORK LINKS

PRACTICE 1: THE GENERATIVE PHASE

<i>Topic Generator</i>	bit.ly/TOPICGEN
<i>3.9 x 1028 Flies, After William Blake</i>	bit.ly/LITTLEFLY
<i>Infinite Puffs</i>	bit.ly/INFIPUFF

PRACTICE 2: TRANSITIONING TOWARDS THE WEB

<i>1000 Truly Original Ideas</i>	bit.ly/1KOIDEAS
<i>Infinite Violets</i>	bit.ly/INFIVIOL

PRACTICE 3: FLICKR NUDE OR NOODLE DESCENDING A STAIRCASE

<i>Flickr Nude or Noodle Descending a Staircase</i>	bit.ly/FLICKRNN
---	--

PRACTICE 4: SELFIE PORTRAIT

<i>Selfie Portrait</i>	bit.ly/SELFIEPORT
------------------------	--

All works can be accessed from: bit.ly/CWEBBPHD

Previous page: Fig. 1.1 *Flickr Nude or Noodle Descending a Staircase*, 2013, screenshot detail, p. vi.

CONTENTS

ABSTRACT	iii	CHAPTER 3: PRACTICE REVIEW	53
ACKNOWLEDGEMENTS	v	Cybernetics and generative art	54
ARTWORK LINKS	vii	<i>net.art generator</i> – Cornelia Sollfrank	57
LIST OF FIGURES	x	Net art	61
INTRODUCTION	1	Surf clubs and Tumblr	63
Prologue	2	<i>Hypergeography</i> – Joe Hamiton	65
Production conditions as context	4	Artistic strategies from appropriation to aggregation	71
Methodology	6	PRACTICE 1: THE GENERATIVE PHASE	79
Theoretical armature	8	<i>Topic Generator</i>	86
Thesis structure	10	<i>39,063,100,000,000,000,000,000,000,000,000 Flies, After</i>	98
A note on format	14	<i>William Blake</i>	
CHAPTER 1: METHODOLOGY	17	<i>Infinite Puffs</i>	106
Extra-subjectivity	18	PRACTICE 2: TRANSITIONING TOWARDS THE WEB	109
Digital methods	20	<i>1000 Truly Original Ideas</i>	112
Use of APIs	27	<i>Infinite Violets</i>	122
Working with (human) others	29	The use of Creative Commons licences	123
CHAPTER 2: LITERATURE REVIEW	35	How the work was displayed	124
Subjectivity	36		
Agency	42		
Authorship and authorial agency	46		

PRACTICE 3: <i>FLICKR NUDE OR NOODLE DESCENDING A STAIRCASE</i>	129	CONCLUSIONS	209
<i>Flickr Nude or Noodle Descending a Staircase</i>	134	Extra-subjectivity and authorship	210
Genealogy part 1: laptop performance	134	Extra-subjective labour and appropriation	214
Genealogy part 2: web version	136	Ethico-legal considerations	216
Genealogy part 3: gallery version	144	Digital methods	219
The role of the viewer: interaction, participation, collaboration	147	Artworks as contribution	220
The role of hashtags	152	Future research	221
PRACTICE 4: <i>SELFIE PORTRAIT</i>	155	BIBLIOGRAPHY	223
Selfie Portrait	162	APPENDIX 1: <i>Flickr Nude or Noodle Descending a Staircase</i> – main page iterations	269
Technical description	164	APPENDIX 2: Correspondence between Charlotte Webb and Own-it, 31 March–15 April 2014 (submitted through Own-it’s online enquiry system)	279
Contextualizing selfies	167	APPENDIX 3: IP clinic transcript	283
The expressive properties of <i>Selfie Portrait</i>	169	APPENDIX 4: Report written by Angus McLean, following Own-it IP clinic	303
<i>Selfie Portrait</i> : gallery version	171	APPENDIX 5: Correspondence re: Instagram terms of use, between Silvia Baumgart (Own-it) and Charlotte Webb, 29 March–27 April 2016	307
Selfies in art and media visualization	175		310
Selfies as data	179		
CHAPTER 4: THE COPYRIGHT EPISODE	183		
Context – copyright and digital cultural production	184		
Legal considerations	189		
The permission bot	195		
Ethical considerations	196		
Research ethical considerations	202		

LIST OF FIGURES

1.1 <i>Flickr Nude or Noodle Descending a Staircase</i> , 2013, screenshot detail	p. vi
1.2 Invisible Children, <i>Kony 2012</i> campaign poster	p. 25
1.3 Quebul Fine Minerals, Fluorite specimen and photograph	p. 25
1.4 Tommaso Renzini, Data visualization, 2012 (detail)	p. 26
1.5 Tumblr archives, overlaid with users' profile descriptions, screenshots	p. 27
1.6 Cornelia Sollfrank, <i>net.art generator</i> , 1999 onwards, screenshot (homepage)	p. 61
1.7 Cornelia Sollfrank, <i>Warhol Flowers</i> , 2004 onwards, screenshot	p. 61
1.8 Joe Hamilton, <i>Hypergeography</i> , 2011, screenshot 1 (homepage)	p. 69
1.9 Joe Hamilton, <i>Hypergeography</i> , 2011, screenshot 2	p. 70
2.0 Joe Hamilton, <i>Hypergeography</i> , 2011, screenshot 3	p. 70
2.1 Joe Hamilton, <i>Hyper Geography</i> , 2011, video still	p. 71
2.2 Joe Hamilton, <i>Hypergeography</i> , 2014, book published by Jean Boîte Éditions	p. 71
2.3 <i>Topic Generator</i> , 2011, screenshot 1	p. 83
2.4 <i>Topic Generator</i> , 2011, screenshot 2	p. 85
2.5 Database of terms for <i>Topic Generator</i>	p. 87
2.6 Google Scholar search engine results from <i>Topic Generator</i>	p. 88
2.7 <i>39,063,100,000,000,000,000,000,000,000,000,000,000 Flies, After William Blake</i> , 2011, screenshot 1	p. 95
2.8 <i>39,063,100,000,000,000,000,000,000,000,000,000,000 Flies, After William Blake</i> , 2011, screenshot 2	p. 97
2.9 <i>Infinite Puffs</i> , 2012, screenshot 1	p. 103
3.0 <i>Infinite Puffs</i> , 2012, screenshot 2	p. 105

3.1 <i>1000 Truly Original Ideas</i> , 2012, screenshot	p. 111
3.2. <i>Infinite Violets</i> , 2012, screenshot 1 (homepage)	p. 117
3.3. <i>Infinite Violets</i> , 2012, screenshot 2	p. 119
3.4. <i>Infinite Violets</i> , 2012, screenshot 3	p. 121
3.5 Cards with QR code link to <i>Infinite Violets</i> , 2012	p. 125
3.6 <i>Flickr Nude or Noodle Descending a Staircase</i> , 2013 (nude version), screenshot	p. 131
3.7 <i>Flickr Nude or Noodle Descending a Staircase</i> , 2013 (noodle version), screenshot	p. 133
3.8 Search results for 'Nude descending a staircase' in multiple browser windows, screenshot	p. 135
3.9 <i>Flickr Nudes Descending a Staircase</i> , homepage version 1, 2013, screenshot	p. 138
4.0 <i>Flickr Nude or Noodle Descending a Staircase</i> , homepage version 2, 2013, screenshot	p. 139
4.1 'Bergen' staircase, created by Anitra, Friday, 15 November 2013, screenshot	p. 142
4.2 'African Dance' staircase, created by Rafiat, Sunday, 2 March 2014, screenshot	p. 143
4.3 <i>Flickr Nude or Noodle Descending a Staircase</i> , installation view, Block 336 Gallery, 2013	p. 144
4.4 <i>Flickr Nude or Noodle Descending a Staircase</i> , Gallery instructions	p. 145
4.5 Table adapted from Graham and Cook (2010: 112–114)	p. 149
4.6 <i>Selfie Portrait</i> , 2014, screenshot 1 (homepage)	p. 157
4.7 <i>Selfie Portrait</i> , 2014, screenshot 2	p. 159
4.8 <i>Selfie Portrait</i> , 2014, screenshot 3	p. 161
4.9 <i>Selfie Portrait</i> , installation view	p. 172
5.0 Software Studies Initiative, 'Cultural analytics chart selection 2', 2010	p. 177

5.1 Lev Manovich <i>et al.</i> , Bangkok imageplot <i>Selfjacity</i> project, 2014	p. 178
5.2 Table 'Ethical Dimensions for Configurable Culture', adapted from Sinnreich (2015: 230)	p. 199
5.3 Diagrammatic summary of legal advice	p. 207

*Every effort has been made to secure permission to reproduce the images in this thesis. At the time of submission, however, permission has not been granted for Figs. 1.8-2.1.

INTRODUCTION

METHODOLOGY

LITERATURE REVIEW

PRACTICE REVIEW

PRACTICE 1

PRACTICE 2

PRACTICE 3

PRACTICE 4

THE COPYRIGHT EPISODE

CONCLUSIONS

BIBLIOGRAPHY

APPENDICES

Prologue

This practice-led research represents an attempt to come to terms with and articulate the enactment of my authorial agency, first in relation to generative computational processes, and then under the techno-social production conditions of the web. At its core is my fascination with the generative possibilities inhering in artworks whose authorial sphere is opened out to include the productive capacities of other subjectivities, entities and processes.

While developing the proposal to begin my doctoral research, I conceived of the term 'extra-subjectivity' to articulate my experience of seven years of being part of Jackson Webb, a two-person collaborative art practice, which I had conceptualized as an autopoietic, 'thinking' entity.¹ Rather than collaboration just involving human inter-subjectivity, I proposed that it generated a productive capacity outside or beyond the two subjectivities involved – i.e. 'extra-subjectivity'.

Early in the research process however, Jackson Webb

amicably disbanded, leaving me with a research proposal about collaboration, but no one to collaborate with. In the absence of another human collaborator, I proposed to consider computer programs as another form of 'other' with which to produce artworks. This reframed the project as an investigation into what kind of 'extra-' might be generated through interactions between a human and a computer program, rather than between humans. Was a form of extra-subjectivity possible 'outside' or 'beyond' the artist when they inaugurated a computational system to generate an artwork?

As I embarked on a series of computer-generated artworks to explore this, and concurrently undertook a review of relevant practice and literature, it became evident that my research questions needed to be situated, not in relation to offline computational processes or cybernetic systems, but to the techno-social context of the web. Framing this shift as a necessity perhaps implies a kind of duty, and it certainly appeared to me that there was an ethical imperative to apprehend and understand the changing production

¹ Jackson Webb was a collaboration between myself and artist Mark Jackson, from 2003 to 2010. A selection of Jackson Webb's works can be found at www.jacksonwebb.com.

conditions of the web that were emerging as the context for my work. But transitioning towards the web as a location for my practice was also driven by an increasing fascination with forms of cultural production I encountered online. They instilled a desire to resist the categories 'art' and 'artist' (understood as part of Michel Foucault's (1969) concept of the author function), and join a broader field of cultural production independent from the commodity-driven validating mechanisms of the art system. I wanted to be part of the emerging, energetic and seemingly autonomous practices I saw on Tumblr, YouTube and other web platforms.

In June 2012, I attended the Digital Methods Initiative (DMI) summer school, titled *Reality Mining and the Limits of Digital Methods*. Launched by Richard Rogers in 2007, the DMI comprises a research programme at the University of Amsterdam, a wiki (Digital Methods Initiative, 2009), as well as annual summer and winter schools (Rogers, 2013: 7).²

² The summer school is an intensive two-week training programme supported by technical and design staff, as well as nine dedicated servers that store tools and data. Participants learn methods, undertake research projects, and produce reports, tools and graphics that are shared on the DMI wiki.

Here, I was introduced to 'digital methods', digital social research techniques that ground claims about cultural change and societal conditions in online dynamics.³ This was transformative for my practice, and helped develop my understanding of the web as a medium rather than a tool, or a device for dissemination.

Having 'arrived' at the web as a medium and location for my practice, I began to use processes of automated data collection to access user-generated content (images) from social media application programming interfaces (APIs), incorporating these into my artworks. Following this, new legal and ethical implications for my practice arose, and I sought legal advice to clarify my position. This in turn gave rise to the 'Copyright Episode', an in-depth look at the effects of copyright law and social media terms of use on my ability to make artworks.

I include this narrative style prologue here both to give a sense of the 'causal' arc of the research, and to foreground my willingness to be led by the shifting imperatives that

³ The phrase 'digital methods' in this thesis refers specifically to the set of research methods set out by Rogers (2013). In keeping with Rogers' writing, the phrase is not capitalized, unless used as part of a name or title.

emerged along the way. This is not to minimize my own agency in steering the course of the research, but rather to introduce one of its central tensions: between wanting to retain and relinquish authorial control over what is produced in my practice. The thesis traces a shift, along its arc, from my initial impetus to resist the author function to my acceptance of it as playing an inevitable, necessary, even desirable role in the existence, circulation and reception of my works.

It also reflects a sustained wrangle over what 'extra-subjectivity' could describe.

As the prologue suggests, I 'arrived' at rather than started out with a set of research questions. Although modified throughout, in their final iteration these can be expressed as: How can using the web to produce art contribute to a new paradigm for understanding the artist's authorial agency? How can 'extra-subjectivity', a conceptual tool that I have developed, be used to describe and reflect on the artist's authorial agency in relation to the techno-social production conditions brought about by the web?

Production conditions as context

As the research developed, the techno-social production conditions of the web emerged as both a medium and a context. Mark Andrejevic (2013: 125) notes that under these conditions, 'much has been made of the de-differentiating force of interactive technologies', which is purported to have collapsed traditional dichotomies between mass and interpersonal communications, consumption and production, and amateur and professional practices, as well as between 'commercial/political, private/public, users/producers, artistic/standardised, original/copy, democratising/disempowering' (Institute of Network Cultures, 2013b: n.p). Alan Kirby (2009: 52) notes that cultural producers no longer occupy fixed roles, and that functional titles such as 'reader, author, viewer, producer, director, listener, presenter, writer', are disrupted and given 'new, hybridized meanings'. Jose Van Dijck (2009: 41–42) notes that nomenclature for describing cultural producers has been characterized by portmanteaux words that mirror these collapsing dichotomies, such as 'prosumer' and 'produser'.

'Social Media' has been defined and conceptualized by scholars in many ways. Despite their different emphases, however, Christian Fuchs (2014a: 37) notes that they all describe 'forms of online sociality: collective action, communication, communities, connecting/networking, co-operation/collaboration, the creative making of user-generated content, playing, sharing'. Forms of production with their origins in reuse, such as Lawrence Lessig's 'remix culture' (2008), Stefan Sonvilla-Weiss's 'mashup culture', (2010) Henry Jenkins' 'convergence culture' (2006) and Aram Sinnreich's 'configurable culture' (2010), reflect the fact that cultural forms themselves are now 'amalgams of other media' (Sinnreich, 2015: 227). There is, however, suspicion over the logic of de-differentiation, which takes on a 'different cast' when 'transposed into the economic realm' (Andrejevic, 2013: 129). Here, increasingly 'participatory' consumption can be rendered productive as it provides inputs 'into the production of the very goods being consumed' (Andrejevic, 2013: 129).

Under our current networked production conditions, Angus Phillips (2014: 18) notes that authorship has been framed as 'democratized'; Amy Robillard and Ron Fortune (2016: 10) state it is 'distributed', and Kirby (2009: 1) states it is

'anonymous, social and multiple'. At the same time, questions of authorship are also questions of legality and regulation, deeply intertwined with matters of intellectual property, copyright, and the contractual obligations set out by technology companies. Global debates about the increasing scope and reach of copyright law have been growing for over a decade, with academics such as James Boyle (2008) and Neil Weinstock Netanel (2008), and activists Cory Doctorow (2008; 2011; 2014) and Lawrence Lessig (2004; 2007; 2008; 2010) arguing that copyright law has become oppressive and extreme as a result of developments in digital culture. While copyright law is being extended in scope and reach in the digital age, large amounts of personal information are being exploited for commercial gain, leading to what Andrejevic describes as the current paradox of authorship:

If popular and scholarly discourses have, in the postmodern era, called into question the authority of the author, economic, commercial, and legal discourses are working hard to secure the notion of authorship as a bulwark against the affordances of digital media. (Andrejevic, 2013: 125)

This research is carried out in the interstices of what Cynthia Chris and David A. Gerstner (2013: 11) describe as the

'contested terrain' of authorship, which is 'an identity that is produced by media industries and creative imagination as much as it is contained by the legal discourses that regulate authorship'.

The production conditions brought about by the web are in constant flux, presenting the challenge of keeping up with terminological, technological, legal and regulatory change. Changes to relevant copyright legislation are ongoing, and social media terms of use are subject to revisions at any time. The Instagram API terms of use were updated on 1 June 2016, just months before my submission date, which caused *Selfie Portrait* to cease functioning as it was originally designed.

The term 'post-Internet art' emerged and took hold during the research period, and the proliferation of artworks and momentum in this field continues.

As with other terms in the field, 'web-based art' is contestable. I use it to describe practices that intentionally engage with the Internet as a site, medium or subject matter, rather than a means of display. 'Web' is used as shorthand for the Internet, reflecting the fact that although there is a technical distinction

between the Internet and the web, the terms are synonymous in everyday usage. The term points beyond a technical definition, such that web-based art could describe works that do not use a browser, although my own works submitted are browser-based. In my own practice, being 'web-based' involves making art 'with' the web. The preposition 'with' can be understood in two senses: firstly to indicate an instrument used to perform an action, and secondly to indicate going in the same direction, or working alongside something. As an instrument, the web offers digital objects and devices, such as images, hashtags and APIs that artworks can be made 'with'. As a medium, the web is a territory artists can operate alongside, working 'with' it in this broader, perhaps more profound, sense.

Methodology

In this research there was a recursive relationship between the production of the artworks, the development of practical methods, theoretical engagement, and reflective writing. I conceive of these elements as acting on each other, reflecting the essential recursiveness of practice-led research. The

methodological, contextual and theoretical constructs required in doctoral research are understood as permeable structures, which produce and are produced by practice. This permeability also indicates that the distinction between 'methods' and 'theory' is somewhat blurred: the development of extra-subjectivity is methodological and theoretical; the adoption of digital methods is practical, but also has a contextualizing function – and digital methods themselves are underpinned by a certain sociological orientation.

The artworks acted as a series of experiments that helped me reflect on my authorial agency in relation to other entities and people who contributed to the artworks' production. The concurrent process of contextualizing the work in relation to other practices and theoretically engaging with my key terms inevitably influenced my thinking and in some senses steered the direction of the practice. However, the artworks remain discrete, with their own logic – there is no sense in which I attempted to express theory 'in' the works. Recourse to the notion of recursivity helps to hold the elements of the research in suspension, acknowledging them as distinct modes that form its relational conditions. As I am the 'subject' producing and accounting for this research, it could be

considered as grounded in my 'experience'. Importantly, however, following Joan W. Scott, my experience *per se* is not presented as authoritative evidence for what is known. For Scott, it is important that experience itself is historicized, rather than presented as 'uncontestable evidence and as an originary point of explanation' (Scott, 1991: 777). In the context of 'writing the history of difference' (Scott, 1991: 773), she argues that if historians take a subject's account of 'what he or she has lived through' as uncontestable evidence, they risk naturalizing the difference of the identity of the person giving the evidence. By taking their identity as self-evident, the historian fails to critique the ways in which its difference is constructed (Scott, 1991: 777–779, paraphrased).

To properly enact this critique, they must

attend to the historical processes that, through discourse, position subjects and produce their experiences. It is not individuals who have experience, but subjects who are constituted through experience. In light of this definition experience becomes not the origin of our explanation, not the authoritative (because seen or felt) evidence that grounds what is known, but rather that which we seek to explain, that about which knowledge is produced. To think about experience in this way is to historicize it as well as to historicize the identities it produces. (Scott, 1991: 779–780)

This research is in itself an historical process that positions me as a subject and produces my experience. This experience is that for which an explanation is sought, and about which knowledge is produced. Critical self-reflection on my experience of producing the artworks led me to *become* a particular subject. The enactment of my artistic agency, informed by these reflections, fed back into both the production of my subjectivity and of the research.

Theoretical armature

Although my aim was not to reach a philosophical *definition* or totalizing theory of ‘extra-subjectivity’, I undertook an investigation into how subjectivity has been theorized to inform the development and use of the conceptual tool that is ‘extra-subjectivity’.⁴ In this research, the production of subjectivity is understood as a complex interaction between pre-established social protocols, personal intervention and the lived experience of being a subject. By emphasizing experience, I move away from post-modernist theories to align myself with the notion that subjectivity is ‘more than the sum total of combined discursive positions’, as described by Lisa Blackman, John Cromby, Derek Hook, Dimitris Papadopoulos and Valerie Walkerdine (2008: 7). This acknowledges the fact that the research itself is more than the sum of its discursive parts, and involves the experience of being a subject recursively producing and produced by the research. It also foregrounds my emphasis on the humanness

⁴ One of the challenges was that ‘subjectivity’ is entangled with the related concepts of ‘self’ and ‘identity’, but as the research evolved to focus on authorship and agency, theoretically engaging with these concepts was outside the scope of the research. The relationship between subjectivity and identity is designated as an area for future research in the conclusion.

of subjectivities 'behind' user-generated content, which was important when attending to their authorial 'rights', and attempting to invest a socially responsible ethic into my practice.

In line with Olga Goriunova (2012) I resist post-Marxian discourses that frame subjectivity as a commodity good, as they tend to designate all forms of production as experiments of late capitalism, and thus eclipse the possibility of forms of agency outside dominant modes of operation.

Jason Read's (2010) conception of

the simultaneous non-identity of the manner in which subjectivity is *produced* and the manner in which subjectivity is *productive*, not just in terms of value or wealth, but its general capacity to produce effects (Read, 2010: 115, italics in original)

helped me construct the conceptual tool of 'extra-subjectivity', which embodies a 'both' or 'and' logic.

As a key term in discussions of subjectivity, the (somewhat entangled) concept of 'agency' is central to the theoretical armature of the research. The sociological perspectives of Anthony Giddens (1979), Christian Fuchs (2014a) and Jason

Read (2010) contribute to my understanding of agency as a form of effective intentionality. These scholars emphasize a recursive relationship between social subjects and social structures, which are both enabling and constraining.

Giddens' emphasis on the agent's perspective rather than the constraints of social structures, resonates with my belief that although my practice is constrained to a degree by the structural elements of the web, it also offers the potential for a high degree of agency in relation to these constraints.

Although agency *can* involve the productive capacities of non-human agents, this research focuses on human agency as a form of effective intentionality.

The question of authorship – a key feature of the artist's agency – was central, and I have already introduced some of the issues for authorship brought about by the production conditions of the web. In this thesis authorship is seen as a 'practice' that shifts in relation to the conditions and subjectivities with which the artworks are produced. Although I acknowledge suggestions that non-human entities such as computer operating systems and programming languages can 'author', as in Judd Ethan Ruggill and Ken S. McAllister (2013: 138–139), I locate authorship in the artist's subjective

capacity as a cultural producer who is accountable and responsible for what they produce. Like agency, authorship involves effective intentionality; negotiating the claim of authorship around my artworks is an enactment of my agency. I use the phrase 'authorial agency' to identify what is unique about my agency as an artist, i.e. that it is specifically authorial.

The concept of the author function was a recurring touch point both in coming to terms with the signifying function of my own proper name, and in developing a socially responsible ethic in my practice.

In relation to issues of copyright raised in the artwork *Selfie Portrait*, the significance of asserting my authorship lies not only in my capacity to 'author' something and thus claim it as my own, but also in how that claim of ownership makes me responsible for the consequences of its production.

Thesis structure

The structure of the thesis reflects the arc of the research, with four central 'Practice Chapters', in which I discuss the different subjectivities, agencies and authorial relations deployed in the production of the artworks. The works presented in Practice 3: *Flickr Nude or Noodle Descending a Staircase* and Practice 4: *Selfie Portrait* were the most involved and complex, which is reflected in the relative length of the chapters that address them.

The Methodology chapter (Chapter 1) is positioned at the outset of the thesis to foreground the role of 'extra-subjectivity' as a conceptual tool used to come to terms with how my authorial agency was enacted in my practice. Here I present the methodological function of the term, trace how my understanding and use of it evolved throughout the research, and discuss its limitations and terminological problems. I also outline a series of other methods adopted in order to carry out the research and address my research questions: I introduce 'digital methods', and rationalize my appropriation of them following my attendance of the 2012

Digital Methods Initiative Summer School. I note that the digital methods distinction between the 'natively digital' and the 'digitized' encouraged me to consider what a natively digital artwork might be, and discuss how technical and theoretical aspects of digital methods were adapted from their sociological context and re-purposed for my practice. I discuss my use of APIs and the programmatic appropriation of user-generated content, which allowed me to investigate a particular set of legal and ethical implications.

Finally, I outline how I explored the relations between my artistic agency and that of other people who contributed to the works with varying degrees of authorial intentionality. Particular attention is given to the ongoing working interaction between myself, and Arthur Webb, who programmed the submitted artworks.

In line with convention, the Literature and Practice Reviews (Chapters 2 and 3) are also presented near the start of the thesis, and as such may appear as positioning devices. However, despite their location in the thesis' structure, both chapters evolved alongside the practice. The Literature Review is organized around my key terms, 'subjectivity',

'agency' and 'authorship', which helped me to construct 'extra-subjectivity' as a conceptual tool and to develop the theoretical armature of the research.

The Practice Review provides another contextual armature, with emphasis placed on artworks and practices that helped me address my research questions. The section on Cybernetics and Generative Art relates to Practice 1: The Generative Phase. Here I briefly discuss early computer art and the language of cybernetics, then focus on Tristan Tzara and William Burroughs' generative approaches to text, which were attempts to offer alternatives to prevailing formal artistic and literary conventions. I look at current web-based text generators, whose rhetorical effects seek to critique the social construction of language.

Florian Cramer's concept of second-order poiesis contributed to my rejection of the notion that deploying a computational system would eclipse my authorial agency from the production of an artwork. Cornelia Sollfrank's *net.art generator* provided a bridge between Practice 1 and Practice 2: Transitioning Towards the Web, as it situates computational generativity in the context of the web, provoking salient

questions of authorship, originality and copyright.

Considerations of Net Art, Surf Clubs, Tumblr and Joe Hamilton's *Hypergeography* relate to Practice 2, providing a contemporary context that informed my shift towards the web as a techno-social space for cultural production.

Consideration of artistic strategies of 'high appropriation' relate to Practice 3 and Practice 4. These are paradigmatically different from the practices of appropriation of the Pictures Generation, or those described by Claire Bishop (2012) and Nicolas Bourriaud (2002a). They demand distinct questions about the implications of (often programmatically) appropriating items of culture created by a wide range of people belonging to online communities, including non-artists.

Practice 1 maps how, in the early stages of the research, the production of a series of computer-generated works, *Topic Generator* (see Figs. 2.3 and 2.4), *39,063,100,000,000,000,000,000,000,000,000,000,000 Flies, After William Blake* (see Figs. 2.7 and 2.8) and *Infinite Puffs* (see Figs. 2.9 and 3.0), enabled me to explore the 'outside' or 'beyond' aspect of extra-subjectivity by considering whether a form of effective intentionality is possible 'outside' or 'beyond' the artist when

they inaugurate a computational system to generate an artwork.

Practice 2 captures the shifting territory of the research, as I began to combine computer generation with the use of corporate social media platforms. Through *1000 Truly Original Ideas* (see Fig. 3.1) I discuss the affordances and constraints imposed by using Tumblr, and consider the value of likes, comments and reblogs as a form of audience attention. *Infinite Violets* (see Figs. 3.2–3.4) made more significant and systematic use of user-generated content from the photo-sharing site Flickr, which prompted consideration of the relative degrees of authorial intentionality expressed in the use of images and text. I discuss the adoption of Creative Commons licences to address the issue of attribution and ownership, and provide an account of how the work was exhibited in a gallery space, which anticipated later enquiries into the need for web-based artists to configure both online and offline iterations of their work.

Practice 3 focuses on *Flickr Nude or Noodle Descending a Staircase* (see Figs. 3.6 and 3.7), which represents a significant

turning point in my practice, as it was the first piece that I consider to be 'natively digital' in DMI terms.

This work deploys an automated technique of data collection to access images through the Flickr API, which expands the authorial sphere of the work to include viewers who intentionally interact with it and Flickr users whose work is included without their knowledge. It is distinct amongst the other submitted works, in that it offers the 'viewer' the opportunity to contribute to the work. I draw on Beryl Graham and Sarah Cook (2010), Bishop (2006a; 2006b), Dave Beech (2008) and Kirby (2009) to discuss the role of the viewer in the work, exploring terms that could describe their activity: 'interaction', 'participation' and 'collaboration'. The work was exhibited in Block 336 Gallery, London, and I discuss how reformatting the work for a physical space created different conditions of 'production' for the viewer, for whom interacting with and contributing to the work became a public act.

Finally, I discuss the role of hashtags as an essential material aspect of the work. I suggest that the work appropriates social process of user-classification, which produces unexpected and uncontrollable formations within the work.

Practice 4 discusses *Selfie Portrait* (see Figs. 4.6–4.8), which programmatically accesses and displays Instagram images tagged #selfie, along with the biographical details of the people who posted them. This work re-focused my attention on the production of subjectivities, and the term 'extra-subjectivity', as selfies are representations of selves. I discuss my intentions to counter Andrew Keen's argument that selfies are narcissistic (Keen, quoted in *The Current*, 2013: 04:40), and to reflect (on) them as representations of human subjectivities rather than 'just' digital objects or data. I contend that selfies are events as well as objects, since they 'take place' temporospatially, in a techno-social context. I examine the expressive properties that reflect my intentions in the work: its contemplative pace, ongoing duration, and the aesthetic reframing of selfies outside Instagram. I discuss the works' display on an iPhone as part of an exhibition, which highlights the different levels of control the artist has over the viewing conditions in a gallery as opposed to in the context of mobile media. I contend that the discursive contextualization of the work plays a more significant role than the mode of display in influencing how it is encountered.

Selfiecity, a project led by Lev Manovich (2014), provided an opportunity to compare the collection and re-presentation of large collections of selfies in the contexts of art and media visualization. I suggest that as a digital sociological endeavour, media visualization is oriented towards 'findings', whereas art is oriented towards reimagining the social realm.

The personal information and metadata associated with a selfie, some of which is intentionally authored and some of which is not, is part of its materiality and medium specificity. My involvement with the DMI enabled me to see both the selfies and this data as 'digital objects' that can be manipulated or repurposed. However, I *also* saw selfies as representations of human subjectivities, which highlights the 'both' or 'and' logic of extra-subjectivity.

Chapter 4: 'The Copyright Episode' is an account of how I negotiated the legal and ethical implications of using the Instagram API to access and display other people's selfies. It begins with an overview of recent literature on intellectual property, copyright and digital cultural production, then details the legal advice given to me by Own-it, University of the Arts London's intellectual property advice service, and

Angus McLean, a solicitor from the London-based law firm Simmons & Simmons acting on behalf of UAL. Mr. McLean's advice covered both copyright and contractual laws pertaining to my use of images in *Selfie Portrait*, as well as potential defences to copyright infringement and levels of risk associated with the artwork. Following this, I discuss the development of my own ethico-legal approach within a broader context of individuals and online communities developing their own ethical frameworks for determining legitimate uses of other people's cultural productions. These frameworks are evolving in the face of a legal and regulatory system that is not equipped to deal with the affordances of digital cultural production. I describe my attempt to develop a 'permission bot' that would automatically request permission to use any selfie included in *Selfie Portrait*. Instagram blocked this attempt on the basis that such a bot would not comply with their requirements for usage of the API.

A note on format

Representing web-based works in print presented a particular challenge: Should the browser window be included? Which

browser should be used? Should I use screenshots, or try to achieve a higher image resolution by 're-staging' the works for print? To try and remain faithful to the artworks and the medium in which they are commonly viewed, I have used screenshots. These were taken on a standard iMac Desktop computer, which means that the resolution of the images is lower than what may be expected in a print document. I have included the browser window, as this is an aesthetic element that viewers would normally encounter online. By providing links to the artworks at the beginning of the thesis, I hope readers will be encouraged to encounter them in their 'natural habitat', as well as seeing them reproduced on the page. Special permission was granted to submit the thesis in landscape format, as it made conceptual and graphic sense to reflect the screen format in the printed document.⁵

⁵ Many of my bibliographic sources were found online. As well as electronic journal articles I have drawn on online artworks, websites, blog posts and online magazine and newspaper articles. This reflects the field in which I am working, where the status of references can be debatable. This presented a challenge when compiling the bibliography, which has been divided into categories of online and offline sources. Where online sources have no page numbers, I have included 'n.p' in my citations. Where websites have no stated author or multiple authors, as in discussion forums and surf clubs, the bibliographic entries begin with the name of the webpage referred to. For online sources, the capitalization and punctuation of each item's title has been kept as it is found on the website. Some of the links in the bibliography

are known to be broken at the time of submission, but were available on the date of access.

INTRODUCTION

METHODOLOGY

LITERATURE REVIEW

PRACTICE REVIEW

PRACTICE 1

PRACTICE 2

PRACTICE 3

PRACTICE 4

THE COPYRIGHT EPISODE

CONCLUSIONS

BIBLIOGRAPHY

APPENDICES

This chapter outlines a series of methods I adopted in order to carry out the research. These, along with the conceptions of practice-led research outlined in the thesis' introduction, constitute my methodology.

Extra-subjectivity

The term 'extra-subjectivity' was used as a conceptual tool to come to terms with how my authorial agency was enacted in my practice, in relation to other entities and people involved in the production of the artworks. Its usefulness waxed and waned, and my understanding of it shifted throughout the research process, especially in relation to my grasp of the term 'subjectivity' and the role my own subjective capacity played in the production of the artworks. I have included general observations about the term in this chapter, but it is also discussed throughout the thesis in relation to specific artworks. I offer a final reflection on the usefulness of the term in the conclusion.

Reflecting on Actor Network Theory (ANT), Bruno Latour states: 'There are four things that do not work with actor-network theory; the word actor, the word network, the word theory and the hyphen! Four nails in the coffin' (Latour, 1999: 15). As I wrangled with the term 'extra-subjectivity', these laconic remarks resonated, and at times it appeared to have its own three problems: the word 'extra', the word 'subjectivity' and the hyphen. However, since my focus was on theoretically informed practice, rather than the development of theory, my intention was not to reach a definitive or totalizing theory of extra-subjectivity. It thus remained methodologically useful despite its limitations and terminological problems, which are discussed below.

The prefix 'extra-' can connote 'outside or beyond' as well as 'surplus'. In the early stages of the research, I explored whether a form of effective intentionality could be enacted 'outside or beyond' the artist when they use a computer program to generate artworks (see Practice 1). Later, the sense of 'surplus' became more relevant as I came to see extra-subjectivity as placing emphasis on the negotiated authorial relations between the artist *and* other people who are involved in the production of artworks.

The proposition that extra-subjectivity could describe something that produces 'outside or beyond' subjectivity was problematic for several reasons. Firstly, as discussed in the Literature Review below, I came to understand subjectivity as being partly produced by experience, including an experience of self. Since a form of subjectivity 'outside or beyond' experience is seen as a conceptual impossibility, extra-subjectivity is not intended to describe an extra-ontological state. Secondly, the possibilities of what 'extra-subjectivity' could describe shifted as I rejected the idea that effective intentionality or subjective experience could be ascribed to a computer program. Although I started out thinking that extra-subjectivity could be used to describe a form of agency instantiated in human/computer relations, the focus quickly shifted to forms of human agency in which there are varying degrees of authorial intentionality. The paradox of the term extra-subjectivity (understood in the 'outside or beyond' sense) is that as a noun, it inexorably returns us to the subject.⁶

⁶ One could argue that 'extra-subjective' is a good way to describe a computer program, precisely because it is 'outside' subjectivity, but the paradox of extra-subjectivity problematizes this reading.

Since extra-subjectivity has to be extra 'to' subjectivity, it cannot be completely outside or beyond it. In an attempt to circumvent this paradox, I started to think about extra-subjectivity in its adverbial form, as a property of the artist's authorship or agency, rather than as a phenomenon outside their subjective experience.

In this new formulation, I speculated that it was possible for a form of authorship or agency to be 'extra to' the subject, rather than a form of *subjectivity* being extra to the subject. This prompted me to use the terms 'extra-subjective authorship' or 'extra-subjective agency' to think about my own and others' roles in the production of my artworks. However, these terms were also problematic: Although one *could* describe the productive capacities of non-human agents as being extra-subjective – i.e. 'outside or beyond' the human subject – in this research, 'agency' implies the artist's effective intentionality in the production of artworks. Thus, claims for a form of agency outside or beyond the subject come up against the same problems as claims for a form of subjectivity outside or beyond the subject. Even when considered in its adverbial form as a property of the subject's agency, extra-

subjectivity still could not describe something 'outside' or 'beyond' the subject.

Rather than 'outside or beyond', therefore, the sense of surplus connoted by '-extra' was more fertile. 'Extra-subjectivity', 'extra-subjective agency' and 'extra-subjective authorship' all came to connote multifarious forms of production involving the negotiated authorial relations between the artist *and* other people or entities who are involved in the production of artworks. Thus 'both' or 'and' is a fundamental aspect of what extra-subjectivity might be.

Digital methods

Richard Rogers opens his book *Digital Methods* by stating:

This is not a methods book, at least in the sense of a set of techniques and heuristics to be lugged like a heavy toolbox across vast areas of enquiry... Rather, this book presents a methodological outlook for research with the web. As such it is a proposal to reorient the field of Internet-related research by studying and repurposing what I term the methods of the medium, or perhaps more straightforwardly

methods embedded in online devices. (Rogers, 2013: 1)

I saw an affinity between practice-led research and the digital methods imperative to 'follow the medium', in that both are concerned with letting the materials and procedures of the medium in question lead the research. Digital methods researchers study how online devices make use of 'natively digital' objects, and then repurpose these uses for social and cultural research. Online devices include social networking platforms (e.g. Twitter), recommendation systems (as used by Amazon) or search engines (e.g. Google), which deploy online methods for data collection and sorting such as 'crawling, scraping, crowd sourcing and folksonomy' (Rogers, 2013: 1).⁷ Natively digital objects include hyperlinks, page hits, likes,

⁷ Web crawling and scraping are distinct but related automated processes of collecting online data: 'Web scraping is the process of taking unstructured information from Web pages and turning it in to structured information that can be used in a subsequent stage of analysis... Search engines use a specialized type of web scraper, called a web crawler (or a web spider, or a search bot), to go through web pages and identify which sites they link to and what words they use' (Hanretty, 2013: 9). Crowdsourcing is 'a type of participative online activity in which an individual, an institution, a non-profit organization, or company proposes to a group of individuals of varying knowledge, heterogeneity, and number, via a flexible open call, the voluntary undertaking of a task' (Estellés-Arolas & González-Ladrón-de-Guevara, 2012: 197). Folksonomies are collaborative tagging systems that 'allow users to tag documents, share their tags, and search for documents based on these tags' (Wu, H., *et al.*, 2006: 111).

hashtags, timestamps and search engine results. The purpose of understanding how online devices use digital objects is not to be able to 'fine tune' the devices (by building a better search engine, for example), but to 'think along' with them, asking what can be learned from online methods, and how they can be reapplied for social research. Digital methods thus 'think along with' online devices, learning how they handle digital objects.

Rogers states: 'By continually thinking along with the devices and the objects they handle, digital methods, as a research practice, strive to follow the evolving methods of the medium' (Rogers, 2013: 1). For example, Google uses web crawlers to discover publicly-available web pages that can be returned when someone searches using its search engine. Google 'makes use' of its search engine results by ranking them, which in turn structures traffic and attention online. Digital methods offer technical means for studying and visualizing Google's search engine results and how they are ranked over time to reveal socio-cultural phenomena:

'Search engines author new orders of things in the sense that they rank sources for any topic. Reading and interpreting engine returns as hierarchies of

credible sources per subject matter can itself be a form of social research' (Rogers, 2013: 6).

Using a digital methods approach, hyperlinks can be used to show a 'politics of association' rather than just to assign a ranking to a website (Rogers, 2013: 5). I adopted the notion of 'thinking along with' or 'making work with' the web for my practice, as a way of trying to use the web as an art medium, rather than a platform for dissemination.

Significantly, digital methods are distinguished from and seen as superior to 'virtual methods', which simply digitize traditional sociological research methods and port them to the web. A categorial distinction is made between 'the natively digital and the digitized, that is, between the objects, content, devices, and environments that are "born" in the new medium and those that have "migrated" to it' (Rogers, 2013: 19). For example, standard sociological methods such as surveys can be digitized and migrated into the web, whereas recommendation systems are seen as 'natively' digital. In moving beyond the virtual, Rogers proposes to move Internet research beyond the study of online culture:

Ultimately, I propose a research practice that learns from the methods of online devices, repurposes them, and seeks to ground claims about cultural change and societal conditions in web data, introducing the term 'online groundedness.' The overall aim is to rework methods for Internet-related research, developing a novel strand of study, digital methods. (Rogers, 2013: 19)

This distinction between the digitized and the natively digital particularly drew me to the digital methods approach. In my computer-generated artworks (see Practice 1). I used strategies that could be considered 'digitized' because I was porting an offline, computational mode of production to the web for display.⁸ I hoped that digital methods would help me move beyond this and consider what a natively digital artwork would be.

During the 2012 DMI Summer School I formed a project group with Nili Steinfeld, a programmer from Israel, Tommaso Renzini, a graphic designer from Italy, and two sociologists, Nadia Dresscher-Lambertus and Simeona Petkova from Aruba and Amsterdam respectively. We carried

out a project titled *The Life of an Image (on Tumblr)*, which investigated the circulation and re-contextualization of images on Tumblr (Dresscher-Lambertus *et al.*, 2012). We collected data from Tumblr through two custom-built data collection tools that used the Tumblr API. An API is a piece of code that allows applications to access data from each other. For example, Twitter is essentially a website, but because its API is publicly available, third parties are able to create applications allowing information on Twitter to be accessed from different places. Using these data collection tools, we traced the circulation of a poster for the *Kony 2012* campaign, and an image of a mineral through Tumblr (Figs. 1.2 and 1.3).⁹ With the data collected, which included the usernames and biographical information of people who had reblogged, liked or commented on the images, Tommaso created a data visualization that showed how many times each image was reblogged and liked, its popularity over time, and the number of related images shown alongside it in any given Tumblr (Fig. 1.4).

⁸ The use of 'natively digital' in this context should not be confused with Mark Prensky's much contested term 'digital natives', which refers to a generation of young people who have grown up with digital technologies (Prensky, 2001).

⁹ *Kony 2012* was a campaign mounted by advocacy organization Invisible Children, which attempted to expose African militia leader, Joseph Kony, and have him arrested (Invisible Children, 2014: n.p).

I wanted to test whether our data could result in an artistic output as well as a data visualization, and suggested that we also present our findings in another format.¹⁰



Fig. 1.2 Invisible Children, *Kony 2012* poster. Image permission granted by Invisible Children.



Fig. 1.3 Quebul Fine Minerals, Fluorite, specimen and photograph. Image permission granted by Quebul Fine Minerals.

I created a short slideshow in which Tumblr users' profile descriptions were overlaid on screenshots of their Tumblr archives, creating an alternative 'picture' of how the *Kony 2012* image was presented by users in relation to other kinds of imagery (Fig. 1.5). This method set a clear precedent for *Selfie Portrait*, which adopts a similar technique of combining profile information with user-generated imagery (see Practice 4).

¹⁰ It was challenging to infer clear sociological insights or claims from our findings. This planted a 'so what?' question for me, similar to the one discussed in Practice 4 in relation to *Selfie City* (Manovich *et al.*, 2014).

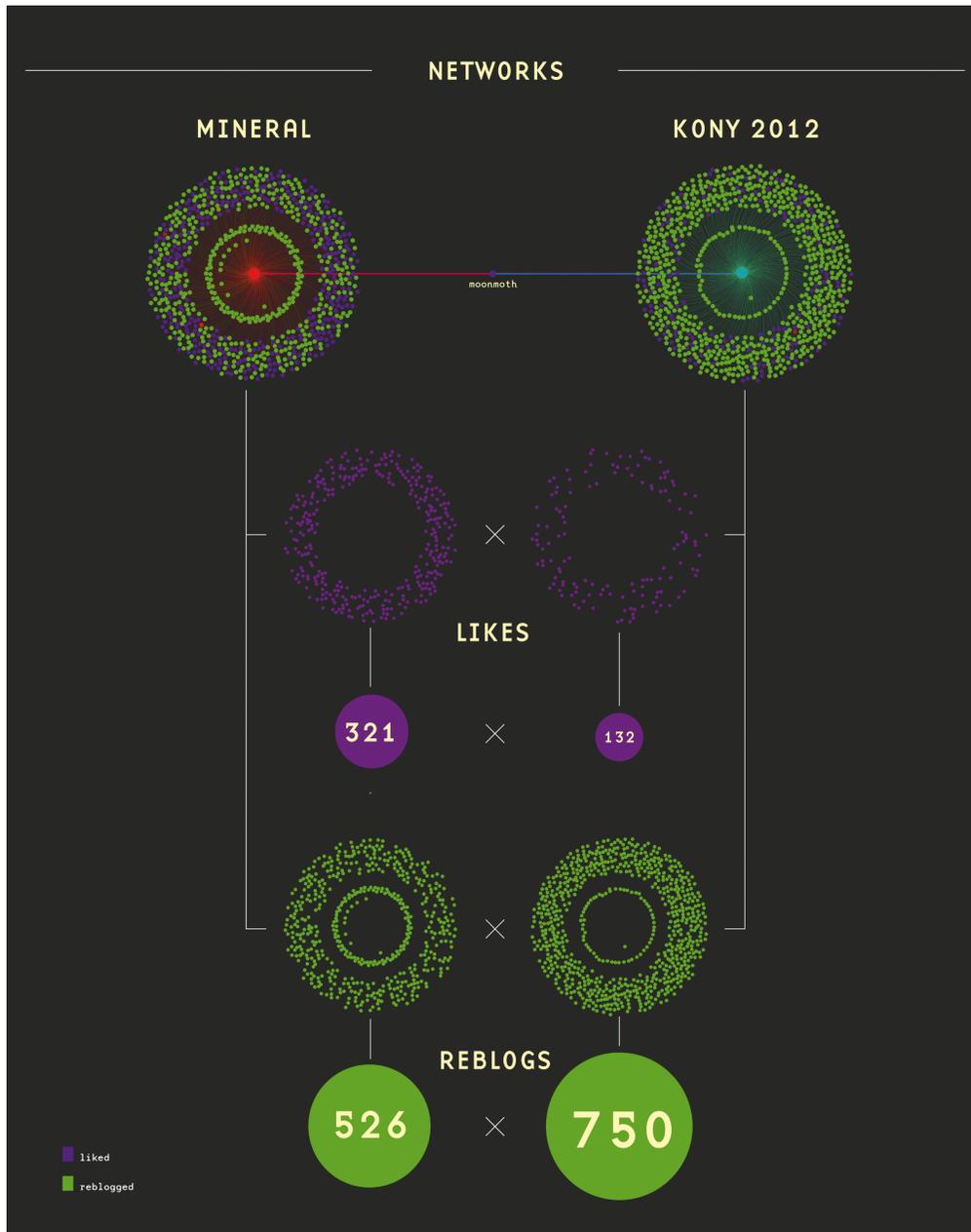


Fig. 1.4 Tommaso Renzini, Data visualization, 2012 (detail). Image permission granted by Tommaso Renzini.

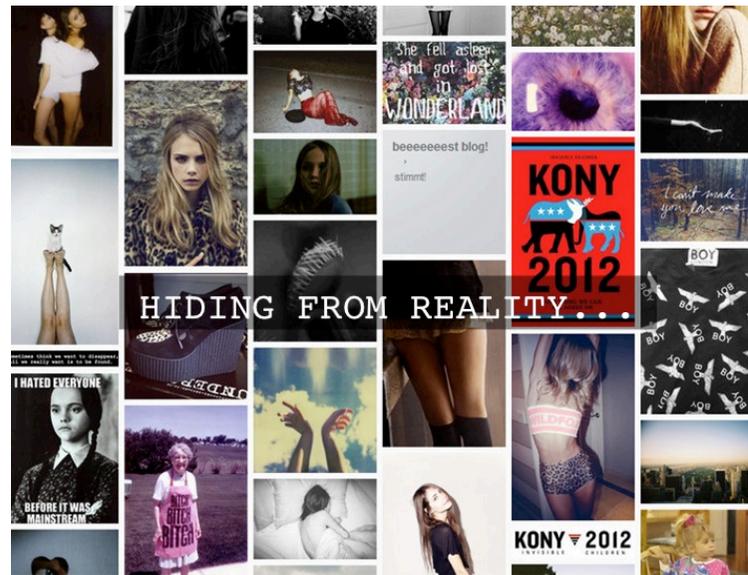
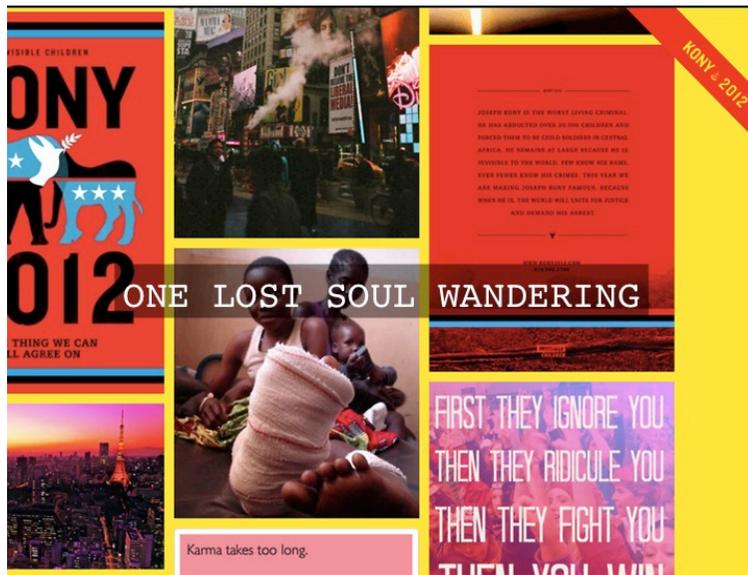


Fig. 1.5 Tumblr archives, overlaid with users' profile descriptions, screenshots.

The data visualization was a conventional digital methods output that treated the images and metadata as information to be mapped in order to reveal sociological phenomena. The slideshow performed a more transformative operation on the images and their metadata, and was a first step towards developing a hybrid methodology, in which digital methods techniques, are re-purposed for art practice. During the 2013 Winter School, the same group of us researched the circulation of images and use of hashtags on Instagram (Dresscher-Lambertus *et al.*, 2013b). Simeona Petkova and I presented a paper on this work, titled *Hashtagging in Instagram: Tactical Connectivity in a Visual Social Network* at the European Conference for the Arts and Humanities in 2013 (International Academic Forum, 2013: 26). Here, we shared findings from our analysis of 400 images from a dataset of 40,000 tagged with #kony and #kony2012, dating from January to May 2012. We suggested that Instagram images are tagged with popular hashtags not just to associate them with a common issue or improve searchability, but for a number of other 'tactical' reasons, such as surfacing unrelated digital images, pushing related images into popular streams, or keeping digital images at the top of content flows by

constantly updating the hashtags. As with the Tumblr project, this work with Instagram paved the way for *Selfie Portrait*, which is discussed in Practice 4.

Digital methods involve a 'postdemographic' approach to studying online networks, which is distinct from traditional sociological research into online culture that involves studying 'how users present themselves and manage their identities and privacy, and how online friendship is related to being friends for real' (Rogers, 2013: 35). Postdemographics can be understood as less attentive to subjectivities than traditional sociological research. It originates in computer and information science and replaces demographic measures such as age, gender or class with metrics such as 'interests, taste in music, favourite books, and television programs' (Rogers, 2013: 35). Although I was not 'doing sociology', my research hovered somewhere between these approaches. On the one hand, my aspiration to make 'natively digital' artworks meant treating the images and hashtags I appropriated as digital objects (in the digital methods sense). On the other hand, it was important that I attended to how they marked the subjectivities of the people who made them.

This was particularly relevant in *Selfie Portrait*, which uses an automated data collection technique learned at the DMI, but foregrounds the agency of the people who took the selfies, as discussed in Practice 4.

Digital methods research involves programmers, sociologists, issue experts, graphic designers, data visualization experts and others whose cross-disciplinary skills are necessary for digital methods to work effectively. The projects undertaken at the DMI Summer and Winter Schools were a collaborative effort, with co-authored and co-presented outputs. The assertion of my artistic agency within this context thus pivoted around bringing my disciplinary perspective to digital methods research.

Use of APIs

The use of the Flickr and Instagram APIs was fundamental to the production of *Flickr Nude or Noodle Descending a Staircase* and *Selfie Portrait*. It enabled me to understand a particular set of legal and ethical implications distinct from those applicable to the use of material taken from the web by other

means such as downloading and saving content or automated web scraping. Web scraping is 'a prominent technique for the automated collection of online data', according to Noortje Marres and Esther Weltevrede (2013: 313). Web scrapers are bits of code that make it possible to 'automatically download data from the Web, and to capture some of the large quantities of data about social life that are available on online platforms like Google, Twitter and Wikipedia' (Marres & Weltevrede, 2013: 313).

Web scraping does not necessarily involve an API, and can be done without permission from the website owner. Marres and Weltevrede note that the popularity of scraping has led to more social media platforms making APIs available, but that the data offered through them is highly constrained by these platforms (Marres & Weltevrede 2013: 322). Winnie Soon suggests that scraping, whilst likely to violate websites' terms of use, offers the possibility to circumvent the regulatory control and governance of platforms, which constrain the quantity and format of available data through APIs (Soon, 2011: 8).

Rogers also notes that special access is required 'for the study of certain natively digital objects such as engine query logs, leading to the discussion of the tension between employing the APIs offered by companies and scraping data' (Rogers, 2013: 15). He states that there is a 'requirement of ethical review often accompanying proposals to scrape online data, including profiles' (Rogers, 2013: 15).¹¹

I chose to access the 'data' (images) I wanted to use through the Flickr and Instagram APIs instead of scraping it, as this was a relatively accessible, and less ethically and legally contentious technique. Corporate social media platforms make APIs available to allow developers to create commercial applications through which their services can be accessed and interacted with in novel ways. Thus APIs have been designed to encourage people (usually developers) to engage in a form of creative (though not necessarily artistic) production.

Whereas the invitation to build on top of platforms is motivated by platforms' commercial interests, I was interested in the use of APIs for the purpose of art

production, and in asking what the APIs would enable and constrain in my practice. I saw value in exploring APIs as an artistic medium that involves a negotiation between the artist, the platform, and its users.

Marres and Weltevrede note that scraping is not 'native' to social research, and introduces 'alien' concepts into the discipline:

'To use scrapers in social research is to import a technique from the worlds of information science and digital services, one that must be adapted if it is to suit the purposes of social research' (Marres & Weltevrede 2013: 320).

Using APIs in my research was also to import a technique from the worlds of information science and digital services, which I adapted to explore forms of agency within web-based art practice.

¹¹ Several cases of the public release of supposedly anonymous personal data, which was subsequently identified (AOL user search histories in 2006 and Harvard students' Facebook data in 2008), have contributed to these ethical demands (Zimmer, 2010: 313–314).

Working with (human) others

A number of people played a role in producing the submitted artworks, with varying degrees of authorial intentionality. This section focuses on intentional human working interactions, rather than on people whose cultural productions were incorporated into the works without their knowledge, as discussed in Practice 3 and Practice 4.

The primary ongoing working interaction was between myself, and Arthur Webb, who programmed the artworks. Arthur is my father. He spent 37 years in a software engineering environment, in the specialized field of industrial process control (rather than in commercial programming or website development). Reflecting on how his involvement came about, Arthur said:

I think how the collaboration arose was that in conversation about your work you mentioned that you needed someone to do programming to achieve your objectives. I had free time due to being retired so given my background I offered to help out. I had some of the skills and knowledge necessary but not all of it so I learnt as necessary along the way (for example, I had

not used JQuery or PHP before). (Webb, A., 2016 – email 1 January)

This accurately describes how we started working together. As he suggests, Arthur's technical input evolved as the research progressed. In *Topic Generator*, *39,063,100,000,000,000,000,000,000,000,000,000 Flies*, *After William Blake*, *1000 Truly Original Ideas* and *Infinite Puffs*, he used HTML, CSS and JavaScript, all in a single file. In *Infinite Violets* he used HTML, CSS, JavaScript and JQuery, in multiple files. In *Flickr Nude or Noodle Descending a Staircase* and *Selfie Portrait* he used HTML, CSS, JavaScript, JQuery and PHP in multiple files, and made use of the Flickr and Instagram APIs. For *Selfie Portrait*, he also used a server side cron job to collect the data.

Our work was mainly done online, with only intermittent face-to-face meetings being practically possible. We used email, Skype, phone calls, and Trello, a shared task management system. Trello allowed us to organize our work, prioritize tasks, agree deadlines for completion, and easily see when tasks were completed.

As the work moved towards a focus on the web, I undertook training to develop my knowledge of HTML and CSS so I could

better understand the coding process during the remaining research period.¹²

However, what I wanted to achieve in the work required JavaScript and PHP, which I did not have the capacity to learn during the PhD. This raised some anxieties about my lack of programming expertise, and I questioned whether having only a very basic knowledge of HTML and CSS was a limitation for my art practice. However, committing time to learning new programming languages would have moved me away from my research focus, and thus it was important for me to work with someone who had the skills needed to make the work 'work'.

I found the concept of the 'T-shaped Designer', coined by Tim Brown, helpful for rationalizing this dynamic. The vertical stroke of the 'T' represents the designer's depth of skill in one

area, which allows them to contribute to the creative process. The horizontal stroke represents their disposition for cross-disciplinary collaboration through empathy and a basic knowledge of or enthusiasm for collaborators' disciplines (Brown, paraphrased from Morten T. Hansen, 2010: n.p). Thus, having learned basic HTML and CSS, I was able to empathize with Arthur's discipline sufficiently to make the working interaction successful. Rather than my agency being enacted through the mastery of a certain programmatic language, it was enacted through the ability to see how programming can be deployed for art.

Arthur and I had distinct roles, with me providing initial ideas and impetus, and him providing technical solutions for these. However, there were moments when these roles relaxed, and Arthur's thought process influenced the work. For example, during the development of *Flickr Nude or Noodle Descending a Staircase*, it became clear that some of the imagery returned for 'nude' was explicit. Arthur was uncomfortable being confronted with explicit images whilst coding, and wary of making multiple calls to the Flickr API for the term 'nude', in case authorities looking for indications of criminal activity were watching out for heavy use of that term. To address this,

¹² The ability to program is frequently conflated with human agency and the ability to 'occupy the highest leverage point in a digital society' (Jennifer Hansen *et al.*, 2013: 22). Douglas Rushkoff's book *Programme or Be Programmed* advocates programming as a mean of accessing the 'control panel of civilisation' (Rushkoff & Purvis, 2010: 7), and suggests that people who cannot program are easily controlled by those who can. Although I agree with Rushkoff that programming has the potential for empowerment, I favour a less techno-centric approach, in which critical thinking and the ability to work across disciplines are as important as technical mastery.

he suggested using 'noodle' instead during development. I was struck by his humorous play on words and wanted to keep it present in the work. This led to the original title of the work '*Flickr Nude Descending a Staircase*' becoming '*Flickr Nude or Noodle Descending a Staircase*'. Thus, what was a technical solution for the programming environment became part of the work, and the way I narrated its development. During a conversation, which I audio recorded, Arthur noted that developing our working practice was

a natural evolution of the way things go, you know, because I learn just through – beginning to do what you ask, I begin to learn and have ideas about – and through seeing what I do, you learn possibilities, and so that just becomes a natural cycle in which there's a moving together, in a sense, of understanding, that brings about I suppose a more collaborative authorship. (Webb, C. and Webb, A., 2013, 8 July, audio recording, 17:54–18:48)

Our intentional agreement to work towards a shared end could be seen as a collaborative form of working ('collaboration' is discussed more in Practice 3). However, I remained the person with the highest degree of authorial intentionality over the work, and was responsible for

fundamental decisions about its key structural features. Thus, I remained the primary 'author' of the work.

The fact that the works (particularly those described in Practice 3 and Practice 4) involved the contributions of a number of people with varying degrees of authorial intentionality raised the question of whether these people's involvement could be considered a form of 'labour' that I exploited. This is discussed in Practice 4 and Chapter 4.¹³ In Arthur's case, his contribution was entirely intentional and undertaken on the basis that the project was of personal interest to him. He was not coerced into taking part, and gained enjoyment and self-development through working on these projects. His voluntary contribution did not take place at the expense of someone else's, nor was he offering work for free that he would otherwise have been paid for.

As well as working with Arthur, I was involved in several collaborative, cross-disciplinary projects and events that

¹³ Debates about digital labour have become prominent in Critical Media and Communications studies with the rise of social media (Fuchs, 2014a: 63). Fuchs distinguishes between three 'levels' of digital labour – agricultural, industrial, and informational (Fuchs, 2014b, 05:48), the latter of which was most relevant to this research. Informational labour includes the production of information content by Internet users as well as software engineering, call centre work and other forms of work relating to the ICT industries.

helped me reflect on the production conditions of the broader field of digital creative practice, and to develop my position within it. For example, I took part in *Hack the Space*, during summer 2014 (The Space, 2016a).¹⁴ Here, artists, developers, hackers, researchers, and technology entrepreneurs worked together during a 24-hour ‘hackathon’ in response to a brief to ‘take any piece of data and turn it into a piece of digital art’. During this event, I co-founded ‘Glasshouse’, a group comprised of an artist, developer, and a technology entrepreneur (Berman *et al.*, 2015a). In 2014, Glasshouse was commissioned by The Space to produce *The Work We Want*, a project investigating how the web is transforming the world of work (The Space, 2016b). The project was exhibited at the *Web We Want Festival* at the Southbank Centre, London in May 2015 – see Southbank Centre (2015) and Webb (no date). Although my involvement in Glasshouse did not directly result in the artworks submitted for the PhD, taking part in *Hack the Space* and forming this group helped me to understand cross-disciplinary working as a dominant condition of production in

the field of digital creative practice. I see my ‘own’ art practice as relatively conventional in relation to these forms of working, in that it positions my individual authorship as central, despite my attempts to defer or complicate my authorial agency.

Summary

The ‘outside or beyond’ connotation of ‘extra-’ was rejected in favour of the ‘surplus’ connotation, as my conception of extra-subjective authorship came to place emphasis on the negotiated authorial relations between the artist *and* other people who are involved in the artworks’ production. This implied that ‘both’ or ‘and’ is a fundamental aspect of what extra-subjectivity might be.

Digital methods encouraged me to attempt to make a ‘natively digital’ artwork to understand the web as an artistic medium rather than just a device for dissemination. Technical and theoretical aspects of digital methods were adapted from their sociological context and re-purposed for my practice, creating a hybrid methodology. The research hovered

¹⁴ At the time of submission, The Space are migrating their website content to a new site, and as such this page and others hosted by The Space that are cited in the thesis are no longer available.

between the postdemographics approach of digital methods and more conventional sociological approaches to studying the web, since I treated online images and hashtags both as data *and* as representations of subjectivities.

Using the Flickr and Instagram APIs in *Flickr Nude or Noodle Descending a Staircase* and *Selfie Portrait* enabled me to explore APIs as an artistic medium that involves a negotiation between the artist, social media platforms, and their users. It also allowed me to investigate a particular set of legal and ethical implications distinct from those applicable to the use of material taken from the web by other means.

The ongoing working interaction with Arthur Webb provided a method of exploring my authorial agency in relation to another person with different disciplinary and technical expertise. My involvement in Hack the Space and Glasshouse Collective enabled reflection on cross-disciplinarity as a dominant production condition within digital creative practice.

INTRODUCTION

METHODOLOGY

LITERATURE REVIEW

PRACTICE REVIEW

PRACTICE 1

PRACTICE 2

PRACTICE 3

PRACTICE 4

THE COPYRIGHT EPISODE

CONCLUSIONS

BIBLIOGRAPHY

APPENDICES

Subjectivity

Tammy Clewell (2000: 381) notes that the term 'subjectivity' is used in various social science discourses to describe 'a human being constituted and altered by historical, social and linguistic structures'. Rather than seeing the human subject as 'the intending source of knowledge and meaning', postmodernist and poststructuralist theorists redefined the human self as 'an entity constructed by, and not simply reflected in a culture's social discourses, linguistic structures, and signifying practices' (Clewell, 2000: 382). Although there was consensus about subjectivity being constructed, the concept was expressed by postmodern theorists with high degrees of variation.

As Goriunova notes, Foucauldian theory built a 'general' understanding of 'institutions as modelling and controlling apparatuses that ensure the production and management of subjectivities necessary for the current mode of production, social order, and various other vectors of dominance' (Goriunova, 2012: 13). Clewell notes that following Foucault's conflation of subjectivity with political power,

cultural critics have introduced issues of human agency and individual responsibility, and concepts of intersubjectivity and community into discussions of postmodern subjectivity. In many cultural arenas, the constitution of the subject is formulated as a complex interaction between linguistic determination and personal intervention. Social subjects situate themselves in a number of culturally-regulated communities, which contain both pre-established protocols for communication, and the potential for social transformation. (Clewell, 2000: 383)¹⁵

Understanding myself as situated in contexts involving both pre-established social protocols and the potential for social transformation was useful for thinking about how I enacted my agency under constraints imposed by techno-social structures in relation to which the artworks were made. This is discussed further in the section on 'agency', below. The issue of individual

¹⁵ Other influential figures in the postmodern formulation of subjectivity have been 'Jacques Lacan in psychoanalysis, Jacques Derrida in deconstruction, Roland Barthes in semiotics, Michel Foucault in the historical analysis of discourse, and Luce Irigaray and Julia Kristeva in feminism' (Clewell, 2000: 382). For these feminist critics, the cultural construction of the subject was sexed and gendered, and 'addressed the possibilities for political and personal change, concerns some have argued are absent or problematically formulated in the work of Barthes, Lacan, Derrida and Foucault' (Clewell, 2000: 382).

responsibility as a key aspect of subjectivity was relevant to my attempt to invest a socially responsible ethic into my practice, as discussed in Chapter 4.

Nick Mansfield (2000: 7) notes that during the 1980s and 1990s, the focus of the debate about subjectivity shifted from big-name theorists towards 'themes' including technology, a category in which 'the dimensions of human experience, and the identity of humanity in general' are always at stake (Mansfield, 2000: 149). The key theorists Mansfield discusses in relation to technology are Martin Heidegger and Donna Haraway.¹⁶ Haraway's 1985 *Cyborg Manifesto* was 'an effort to contribute to socialist-feminist culture and theory in a postmodernist, non-naturalist mode' (Haraway, 1991: 150). By developing the concept of the cyborg, and collapsing the distinction between machines and organisms, Haraway attempted to challenge essentialist models of humanity, and women in particular:

With the hard-won recognition of their social and historical constitution, gender, race and class cannot

¹⁶ In the early stages of this project I read around Heidegger, but felt that his metaphysics of technology would not practically help me address my research questions, particularly as the project was not philosophically oriented.

provide the basis for belief in 'essential unity'. There is nothing about being 'female' that naturally binds women.' (Haraway, 1991: 155)

I chose not to ground my exploration of extra-subjectivity in a socialist-feminist discourse, as my intention was not to articulate a new form of political subjectivity, or to focus on the production of female identity specifically. Instead I wanted to use extra-subjectivity as a methodological tool to come to terms with how my authorial agency was enacted under various conditions of production, firstly in relation to computational generative processes and later to the programmatic appropriation of other people's online cultural productions.

Mansfield states that there is an additional usage of the word 'subject' beyond the linguistic, politico-legal and philosophical, which pertains to the subject as a human person who develops a sense of their self through lived experience (Mansfield, 2000: 4). For him, seeing subjectivity as a bounded 'thing' is erroneous, because subjectivity is 'primarily an experience, and remains permanently open to inconsistency, contradiction and unself-consciousness' (Mansfield, 2000: 6). Marsha Bradfield notes that: 'we can also understand subjectivity as a subject's

experience of self. Subjectivity is not *only* constructed. It's *also* experienced, with this *experience* feeding back into a subject's—a person's—becoming, their self realisation' (Bradfield, 2013: 119, italics in original). According to Blackman *et al.*, if experience is properly taken into account, subjectivity can be understood 'as more than the sum total of combined discursive positions' (Blackman *et al.*, 2008: 7). They note that Foucault's work marked a shift towards a distinction between

subjects as produced in power/knowledge and *subjectivity*, which we could call the experience of being subjected. It is important to separate one from the other. Subjectivity, in this account, is the experience of the lived multiplicity of positionings. It is historically contingent and is produced through the plays of power/knowledge. (Blackman *et al.*, 2008: 6, my italics)

I found an emphasis on experience useful as it acknowledged that the research itself is more than the sum of its discursive parts, and involved the experience of being a subject recursively producing and produced by it. It also foregrounded my emphasis on the humanness of subjectivities 'behind' user-generated content.

As my work shifted towards being located on the web, I sought out literature that demonstrated how contemporary cultural

theorists and media scholars have approached subjectivity in relation to the production conditions of the web. Several contemporary thinkers have used ecological metaphors to describe the relationship of the human subject to techno-social processes, such as Matthew Fuller (2005), Jussi Parikka (2007; 2010) and Michael Goddard (2011).

Scholars of Media *Ecologies* represent a break from older forms of Media *Ecology* that emerged from conversations between Marshall McLuhan, Eric Mcluhan and Neil Postman in the late 1960s (Goddard, 2011: 7).¹⁷ For Goddard, 'existing' Media

¹⁷ Philosophers whose work on subjectivity and technology paved the way for Media *Ecologies* include Gilbert Simondon (2007), Bernard Stiegler (1998) and Felix Guattari (2000). Simondon insisted that 'it is not only the human being but the machine as well that carries within itself dynamics of thought' (Simondon, paraphrased in Parikka, 2011: 36). His concept of individuation extended to human and non-human entities. Stiegler's work addresses the relationship between technology, subjectivity and time. Gary Hall notes: 'Building on the philosophy of Jacques Derrida, Stiegler argues that the relation of the human to technology is one of originary technicity or protheticity. What this means is that, contrary to the classical Aristotelian view, technology (i.e. that which is organised but inorganic, manufactured, artificial) is not added to the human from the outside and only after the latter's birth, as an external prosthesis, tool or instrument used to bring about certain ends. The human is rather born out of its relation to technology' (Hall, 2013: 84). In other words, the human and the non-human are essentially co-dependent aspects of being. Guattari was 'profoundly affected' by his encounter with and participation in the free radio movement in France and Italy in the 1970s. This formed the basis of his conception of a 'post-media' era in which mass-media could be appropriated by various subject groups for non capitalist purposes (Goddard, 2011: 9). Guattari's conception of media ecology involves 'the generation of a media or

Ecology needed to be revisited, as 'ecology should not be limited to the physical systems studied by environmental science but ought to include (at least) two other levels, namely a social ecology of social relations and a mental ecology of subjectivity or rather the production of subjectivity' (Goddard, 2011: 8). Fuller often focuses on artistic and activist practices, which 'precisely work through the complex media layers in which on the one hand subjectivation and agency are articulated and, on the other hand, the materiality of informational objects gets distributed, dispersed and takes effect' (Goddard and Parikka, 2011: 2). As Parikka notes:

Media ecological methodologies and excavations are in a good position to map such subjectivities that do not follow the normal definitions of subjectivities based in consciousness, morals, or for example human sociality, but in a more radical material relationality and sociability [*sic*]. (Parikka, 2011: 37)

Media Ecologies' emphasis on non-human agency, and the investment of non-human agents with properties of relationality and sociability, did not provide the right framework for my practice. As noted in the section on agency

rather post-media assemblage, that is a self-referential network for an unforeseen processual and political production of subjectivity amplifying itself via technical means' (Goddard, 2011: 14–15).

below, shifting registers when talking about my own subjective capacity to produce, and the 'productive capacities' of digital objects such as selfies or hashtags *was* important.

Other discussions such as those by Martyn Thayne (2012), Anne Helmond and Carolin Gerlitz (2013), Fuchs, (2014a) and Jaron Lanier (2014), address how capitalist society and corporate companies extract value from techno-social activities and interactions performed by people online,. In some cases these activities and interactions are, perhaps too reductively, conflated with subjectivity. For example, Thayne posits 'socialised subjectivity' as 'a collective process of self-expression which is both directly productive for capital and immanent to the production/consumption process' (Thayne, 2012: 7). He suggests that the creation of online images, videos, blogs and other online media, the production of public profiles, maintenance of social ties and public expression of affective relations are rendered economically valuable through online social networks (Thayne, 2012: 4). One limitation of this argument is that reflexively engaging in art practice is different to performing everyday online activities. As Tiziana Terranova puts it, 'The Internet does not automatically turn every user into an active producer, and every worker into a creative

subject' (Terranova, 2000: 35). For Jason Read (2010), 'The conditions of our subjectivity, language, knowledge, and habits... have become increasingly important to the contemporary production process, becoming the source of new forms of wealth' (Read, 2010: 113).¹⁸ Although I do not make any economic use of people's images in my artworks, the framing of subjectivity as a commodity good forced me to think about what exactly I was appropriating when I used people's images in my artworks. Was I complicit in capitalist processes of exploitation by using representations of subjectivities in the form of selfies or other user-generated images? This is discussed further in Practice 4.

Read emphasizes two senses of the phrase 'the production of subjectivity', which can be understood as

the simultaneous non-identity of the manner in which subjectivity is *produced* and the manner in which subjectivity is *productive*, not just in terms of value or wealth, but its general capacity to produce effects. (Read, 2010: 115, italics in original)

The subject is not *only* an effect of social structures, but is *also* capable of causing effects that transform them. The production of subjectivity

demands that two facets of social reality, that of the constitution of ideas and desires and that of the production of things, must be thought of not as hierarchically structured with respect to each other, but fully immanent, taking place at the same time, and within the same sites. (Read, 2010: 114)

This sense of subjectivity being both productive *and* produced informed the development of the conceptual tool that is extra-subjectivity, which embodies a 'both' or 'and' logic, as discussed in the Methodology chapter.

The production of subjectivity in the context of the web is also framed by discourses of immaterial labour, defined by Michael Hardt and Antonio Negri as 'labor that produces an immaterial good, such as a service, a cultural product, knowledge, or communication' (Hardt & Negri, 2000: 290). For Karl Marx, the basic orientation of subjectivity is labour, 'understood specifically as the production of things through the work of the

¹⁸ Read does not focus just on the production of subjectivity in relation to technology, but touches on this, drawing on Bernard Stiegler to discuss the relationship between the individual and the collective in an era when we have become 'simultaneously more connected and disconnected' (Read, 2010: 120–121).

body and hands' (Read, 2010: 116).¹⁹ However, Adam Arvidsson notes that contemporary re-readings of Marx have developed

as a response to the social transformations that have accompanied the movement from a Fordist, factory-centred production process to the more diffuse and expanded systems of production that characterize post-Fordism, where social interaction and communication enter as directly productive elements. (Arvidsson, 2005: 237)²⁰

Goriunova notes that over the last decade, various currents of thought about freedom in digital culture, including the work of Maurizio Lazzarato, Terranova, Hardt and Negri, have contributed to a post-Marxian conceptual framework that sees the whole of society as 'a site of production, with capital extracting value from the entirety of social relations' (Goriunova, 2012: 27). Lazzarato's concept of 'immaterial

¹⁹ Post-feminist, post-colonial and post-humanist critiques of labour, such as those by Donna Haraway, and Paul Gilroy reject the Marxian view of labour as a 'humanizing' activity that forms the basis of subjectivity. In feminist political economy, a key form of free labour beyond that performed on the Internet is the unwaged reproductive and household labour primarily performed by women.

²⁰ Hall states that a small number of powerful corporations, including Amazon, Facebook and Google, are 'exposing users to cultural and cognitive persuasion and manipulation (often but not always in the form of advertising) based on the tracking and aggregation of their freely provided labour, content and public and personal data' (Hall, 2013: 86).

labour' refers to the production of the 'informational and cultural process of the commodity', and involves

a series of activities that are not normally recognized as 'work' – in other words, the kinds of activities involved in defining and fixing cultural and artistic standards, fashions, tastes, consumer norms, and, more strategically, public opinion. (Lazzarato, 1996: 133)

Thayne notes: 'As users persistently update and re-evaluate their profiles and social relations to reflect their evolving interests and tastes, they become affective labourers in the production of collective subjectivities' (Thayne, 2012: 10). As Read puts it:

At this point capital no longer simply exploits labour, extracting its surplus, but fundamentally alters its technical and social conditions, as it subsumes all of society. Subsumption in this case crosses both sides of market relations, encompassing labour, which comes to involve the work of language, the mind, and the affects, and the commodity form. (Read, 2010: 119)

For Read, understanding how contemporary production processes capitalize on the production of subjectivity is crucial. He argues that it is essential to examine how subjectivity is produced in order to understand how it might be produced otherwise, 'turning a passive condition into an active process'

(Read, 2010: 114). Similarly, Geoff Cox and Joasia Krysa argue that 'new forms of resistance' are made possible by understanding the 'increasingly immaterial form of social relations, communications networks and information systems [that have] also been extended to the new type of production of 'immaterial goods'' (Cox & Krysa, 2005: 10).

For Goriunova, however, it is important to re-think freedom from outside the post-Marxian and liberal theoretical framework in order to see what is actually taking place in culture and art that can 'extend and disrupt the dominant modes of operation' (Goriunova, 2012: 29). She criticizes Terranova's picture of capitalism as a 'smooth, seamless, and monolithic process', stating that framing *all* aspects of digital culture as experiments of late capitalism, eclipses the possibility for subversion and resistance (Goriunova, 2012: 29). In Terranova's vision there are no breaks with capital that could offer an exit or outside except for an 'annihilating catastrophe' (Goriunova, 2012: 29). Because Marxist theory understands the social plane as a totality, it therefore understands participatory platforms and network cultures as 'machines of exploitation and subsumption, involving the deformation of transcendental freedom' (Goriunova, 2012: 29).

Whilst I acknowledge the very deep purchase capitalism has over processes of cultural production, in line with Olga Goriunova, I see the post-Marxian theoretical framework as problematic in that it tends to designate *all* forms of cultural production as experiments of late capitalism. This eclipses the possibility of forms of agency outside dominant modes of operation, and does not allow enough distinction between different modes of cultural production.

Agency

The concept of agency, a key term in discussions of subjectivity, became increasingly important as the research progressed. As noted by Clewell, issues of human agency and individual responsibility are central to postmodern discussions of subjectivity (Clewell, 2000: 383), and agency is a 'landmark' term in debates about the human subject (Mansfield, 2000: 149). In sociological theory, human agency, described by William. H Sewell, Jr. as the 'efficacy of human action' (Sewell, 1992: 2), is inextricably linked to the concept of structure, 'one of the most important and most elusive terms in the vocabulary of current social science' (Sewell, 1992: 1). Margaret

Archer states that the problem of the relationship between agency and structure points to the 'central dilemmas in social theory' (Archer, 1996: xi).

Ian Craib notes that for Anthony Giddens, social structures must be understood as 'dualities' rather than 'dualisms' Craib, 2011: 3). Structure and agency are not conceptualized as separate entities, but as part of a twofold condition of social life. In Giddens' structuration theory, the 'duality of structure' denotes 'the essential recursiveness of social life, as constituted in social practices: structure is both the medium and outcome of the reproduction of practices' (Giddens, 1979: 5). According to this view, 'Structures shape people's practices, but it is also people's practices that constitute (and reproduce) structures. In this view of things, human agency and structure, far from being *opposed*, in fact *presuppose* each other' (Sewell, 1992: 4, italics in original). Read similarly argues that the individual cannot be seen as a given if it is seen as 'produced'. For him, the idea that individuals are nothing more than an effect of a larger structure is an insufficient basis for thinking about social relations. However, philosophical concepts of social relations that start with irreducible individuals, the total of whose actions constitutes society, are also inadequate.

It is therefore necessary to think beyond an opposition between the individual and society in order to 'grasp the productive nexus from which both individualities and collectivities emerge' (Read, 2010: 116).

Importantly for Giddens, structures enable as well as constrain people: '*Structure must not be conceptualized as simply placing constraints upon human agency, but as enabling. This is what I call the duality of structure*' (Giddens, 1993: 169, italics in original).

This, as Sewell makes clear, implies that human agents are

capable of putting their structurally formed capacities to work in creative or innovative ways. If enough people or even a few people who are powerful enough act in innovative ways, their action may have the consequence of transforming the very structures that gave them the capacity to act. (Sewell, 1992: 4)

This sense of being able to transform the structures in relation to which I operate is important in my practice. The web is a techno-social structure that both enables *and* constrains my capacity to make artworks, and is something I can transform through my practice.

Fuchs draws on Giddens to describe the techno-social nature of the Internet and the web.

He states that media (which are ‘techno-social systems’, not ‘technologies’), are based on the duality of structure and agency.²¹ They have

a technological level of artefacts that enable and constrain a social level of human activities that create knowledge that is produced, diffused and consumed with the help of the artefacts at the technological level. (Fuchs, 2014a: 37)

Techno-social systems create knowledge that is ‘produced, distributed, and consumed with the help of technologies in a dynamic and reflexive process that connects technological structures and human agency’ (Fuchs, 2014a: 37). Fuchs states:

The Internet consists of both a technological infrastructure and (inter)acting humans. It is not a network of computer networks, but a network that interconnects social networks and technological networks of computer networks... The technical network structure (a global computer network of computer

networks based on the TCP/IP (Transmission Control Protocol/Internet Protocol) protocol, a model that is used for defining how data is formatted, transmitted and received on the Internet) is the medium for and outcome of human agency. It enables and constrains human activity and thinking and is the result of productive social communication and co-operation processes. The technological structure/part of the Internet enables and constrains human behaviour and is itself produced and permanently reproduced by the human communicative part of the Internet. (Fuchs, 2014a: 37)

Despite encountering a number of critiques of Giddens’ approach such as Archer (1995) and Francisco Perales Pérez (2008),²² his emphasis on the agent’s perspective rather than the constraints of social structures, resonates with my belief that although my practice is constrained by the structural elements of the web to a degree, I also have a high degree of agency in relation to these constraints. My agency as an artist is enacted when I make something that modifies, re-presents,

²¹ Cynthia Chris and David A. Gerstner provide a useful overview of the term ‘media’ in their introduction to *Media Authorship* (Chris & Gerstner, 2013: 4–6). Drawing on the ideas of Raymond Williams, Marshall McLuhan, Friedrich Kittler and Lisa Gitelman, they acknowledge the social as well as technical meaning of the term, stating: ‘even within dissipated agency and corporatized identity formation, social and creative determination remains *relevant and possible* through the use of media technology... In other words, the term “media” occupies not only mediating technologies but, more significantly, technologies for social intervention’ (Chris & Gerstner, 2013: 5–6, italics in original).

²² Archer states that endorsing the mutual constitution of structure and agency ‘precludes examination of their interplay, of the effects of one upon the other’ (Archer, 1995: 14). Pérez notes that Giddens is criticized for ‘overemphasising the role and freedom of the agent to the detriment of the constraining pressures of social structures’ (Pérez, 2008: 55). As a result, his theory lacks ‘a notion of why agents cannot quite often avoid social failure (i.e. unemployment, divorce or poverty)’ (Pérez, 2008: 57). For Pérez, Giddens fails to acknowledge the specificities of social structures and the fact that different people are subject to different degrees of freedom and constraint in relation to them.

reflects on or subverts the constraints imposed on me in certain contexts, for example by corporate social media sites, or API terms of use.

Actor Network Theory (ANT), which has widely influenced media scholarship, collapses the duality between structure and agency. As noted by Cassandra S. Crawford, ANT is an anti-essentialist approach, which

does not differentiate between science (knowledge) and technology (artifact). Similarly, proponents do not subscribe to the division between society and nature, truth and falsehood, agency and structure, context and content, human and non-human, microlevel phenomenon and macrolevel phenomenon, or knowledge and power. Nature and society, subjectivity and structure, and fact and fiction are all effects of collective activity. (Crawford, 2005: 1)

ANT initially appeared to offer a way to think about the productive capacities of both human and non-human agents in my work. It enabled me to acknowledge that there is a network of agents that contribute to the works' production with varying degrees of authorial intentionality. For example, in *Flickr Nude or Noodle Descending a Staircase* (see Practice 3), Arthur Webb, who programmed the work, the viewers who interact with the

work, Flickr users, and a number of non-human entities such as images, hashtags and the Flickr API can all be understood as agents in the aesthetic production of the work.²³ However, some ANT tenets did not align well with the orientation of my research. For example, the principle of 'generalized symmetry' involves

employing a single explanatory frame when interpreting actants, human and nonhuman. Investigators should never shift registers to examine individuals and organizations, bugs and collectors, or computers and their programmers. (Crawford, 2005: 2)

Whilst I accept that non-human agents can have *productive* capacities, they do not have *subjective* capacities, and do not need to have their 'rights' protected in the same way as humans. As this research focuses on agency as a form of effective, human intentionality, it was inappropriate *not* to 'shift register' when examining my own subjective intentionality in comparison to the 'agency' of, for example, an image that was appropriated and included in an artwork. As Fuchs notes,

²³ The Digital Methods Initiative reader compiled by Marc Tuters and Lonneke van der Velden, which accompanied the 2012 summer school that I attended, includes seven texts authored or co-authored by Latour (Tuters & van der Velden, 2012), which demonstrates his theoretical influence on digital methods research.

'society is based on humans, reflexive and self-conscious beings that have cultural norms, anticipative thinking, and a certain freedom of action that computers do not have' (Fuchs, 2014a: 74). The production of a series of computer-generated works (see Practice 1) demonstrated that there *was* a distinction between the productive capacities of the systems I inaugurated and my authorial intentionality.

Authorship and authorial agency

As with 'agency' and 'subjectivity', the terms 'agency' and 'authorship' are highly entangled in this research. Although I acknowledge claims that non-human entities such as software can 'author', in this research authorship is located in the artist's subjective experience of being a cultural producer who is intentionally accountable and responsible for what they produce.²⁴ I use the phrase '*authorial agency*' to identify what is

unique about my agency as an artist. To put it another way, negotiating the claim of authorship over my artworks is an enactment of my artistic agency.

In *Media Authorship*, Chris and Gerstner present authorship as

contested terrain rather than a stable designation; it is an identity that is produced by media industries and creative imagination as much as it is contained by the legal discourses that regulate authorship. (Chris & Gerstner, 2013: 11)

In this research, authorship is also presented as contested terrain, or rather contested *practice*, which shifts in relation to the conditions and subjectivities with which the artworks are produced.

Chris Barker notes that Post-structuralist theories of authorship, particularly those by Roland Barthes and Foucault, challenged the essentialist notion of the author as 'the creative originator of a text whose intentions constitute a work's authentic meanings and significance' (Barker, 2004). Despite Barthes' famous declaration of the 'death of the author', neither he nor Foucault 'kill off the author as much as they re-evaluate the author's hegemonic status by foregrounding the

²⁴ For example, Ruggill and McAllister list computer operating systems, game hardware, programming languages, central and graphical processing units, network interface cards, and software ratings groups as entities that 'make authorial (and certainly authoritative) contributions to the computer games people play' (Ruggill & McAllister, 2013: 138). Although these entities are fundamental to the conditions of production of computer games, I take the claim that they 'author' the games to be metaphorical.

reader's involvement or interaction with an "authored" text (Chris & Gerstner, 2013: 7, italics in original).²⁵ The author's 'death' is thus not total, but rather 'provides an opening for multiple interpretations and possibilities' (Chris & Gerstner, 2013: 8).²⁶

According to Kirby, however, networked technologies make the reader's metaphorical, interpretive role literal. In *Digimodernism*, he posits a new cultural paradigm that has superseded Postmodernism (Kirby, 2009: 1). He proposes that 'digimodernist' texts, including 'Wikipedia, blogs, chat rooms, and social networking sites' (Kirby 2009: 51),²⁷ undermine postmodernist conceptions of the reader as 'producer'. He states: 'In its pure form the digimodernist text permits the reader or viewer to intervene textually, physically to make text, to add visible content or tangibly shape narrative development' (Kirby, 2009: 1).

²⁵ For an incisive discussion of Barthes' and Foucault's theories of authorship in relation to dialogic art, see Bradfield, 2013: 353–373.

²⁶ Walter Benjamin set a precedent for this in 1934, when he suggested that 'the reader is always ready to become a writer', who 'gains entrance to authorship' by the act of interpretation (Benjamin, 1934 in Jennings *et al.*, 2005: 741).

²⁷ Digimodernist texts also can be found 'across contemporary culture, ranging from "reality TV" to Hollywood fantasy Blockbusters... to the most sophisticated video games, and from certain kinds of radio show to crossover fiction' (Kirby, 2009: 1).

This, he argues, is not a metaphorical form of production but a literal one, which renders postmodernist theories redundant:

In truth, theory can only conceptualize the reader/viewer as the producer of a text by transforming its sense of a text into a system of meanings. This enables it to construct the reader/viewer as the producer of textual meanings and hence, to all apparent intents and purposes, as the producer of text. But, as any filmmaker or novelist knows, a text is primarily a selected quantity and sequence of visual or linguistic materials, and to make text is to create those materials. (Kirby, 2009: 56)

The reader's interpretive role is secondary to this primary form of production. Furthermore, Kirby suggests, existing theories of reading as authoring imply an already created text, since they 'cannot conceive of a meaningful form of the text which is not already materially constituted' (Kirby, 2009: 56). Although Kirby's focus is on the written text, his assertion about the literal involvement of the reader was useful for thinking about the role of other entities and people involved in the production of my works, particularly *Flickr Nude or Noodle Descending a Staircase*, whose development 'viewers' can play a visible role in shaping.

The changing dynamic between the reader and writer in digital culture is also reflected in discussions of the collapsing dichotomies of production and consumption.²⁸ Jose Van Dijck states:

Since the 1980s, the term 'prosumer' has been deployed by various academics to denote how users' agency hovers between the bipolar categories of producer versus consumer, and of professional versus consumer. (Van Dijck, 2009: 41–42)²⁹

She continues: 'New hybrid terms such as 'produser' and 'co-creator' have meanwhile entered academic parlance to accentuate users' increased production prowess'. Van Dijck notes that placing terms such as producer and consumer dichotomously is not helpful, as the relations between commerce, content and information have been redrawn under the production conditions of the web (Van Dijck, 2009: 42). She suggests that the question of what forms of agency can be ascribed to contributors to user-generated content platforms requires a more nuanced analysis.

²⁸ Other dichotomies said to have been collapsed by the web are 'commercial/political, private/public, users/producers, artistic/standardised, original/copy, democratising/ disempowering' (Institute of Network Cultures, 2013b: n.p).

²⁹ Curt Cloninger draws on Michel de Certeau to propose a continuum between 'strategic production' and 'tactical consumption' (Cloninger, 2009: 2).

For Mark Andrejevic, the purported collapse of distinctions between producer and consumer, creator and audience, writer and reader,

licenses the claim to authorship of activities hitherto excluded from the realm of production or creation. If consumption is a form of production precisely because it is participatory – in the sense that it requires some inputs generated by the consumer – then it can lay claim to aspects of authorship. (Andrejevic, 2013: 125)

This is discussed further in Chapter 4. My focus was on production rather than reception, but the porous line between these categories provided a context for considering my questions of authorship.

Foucault's concept of the author function was a recurring touch point, as part of my research involved defining and negotiating the social, signifying function of my authorship. This is discussed in the Practice Review in relation to *1000 Truly Original Ideas* (also see Practice 2). Foucault states:

The author's name serves to characterize a certain mode of being of discourse: the fact that the discourse has an author's name, that one can say "this was written by so-and-so" or "so-and-so is its author," shows that this discourse is not ordinary speech that merely comes

and goes, not something that is immediately consumable. On the contrary, it is a speech that must be received in a certain mode and that, in a given culture, must receive a certain status. (Foucault, 1969: 107)

He continues:

The author's name manifests the appearance of a certain discursive set and indicates the status of this discourse within a society and culture. It has no legal status, nor is it located in the fiction of the work; rather, it is located in the break that founds a certain discursive construct and its very particular mode of being. As a result, we could say that in a civilization like our own there are a certain number of discourses endowed with the "author function" while others are deprived of it. (Foucault, 1969: 107)

By highlighting the author function, Foucault suggested that the author (rather than being 'dead' as Barthes claimed) remained a signifier that the reader takes note of when reading a text. Chris and Gerster note that in the 'muddled and monolithic' environment of 'the media',

authorship invariably looks more and more like a branding strategy. (For example, Steve Jobs was not the sole inventor of the iPad and iPhone but, for many, Steve Jobs was *the* author of all Apple products.) Michel Foucault, in so many words, identified this authorship

strategy in Western commodity culture as the 'author-function'. (Chris & Gerstner, 2013: 5)

The author function thus 'serves an ideological function for Western society's commodity-driven culture' (Chris & Gerstner, 2013: 7). As I note in the introduction to the thesis, the development of the research involved a shift from wanting to resist the author function, to coming to terms with it as part of my artistic agency.

As Boatema Boateng observes, the author function also serves to '*authorize*' the legitimacy of texts in the author's body of works:

This process of authorization has its legal equivalent in intellectual property law, which links creative work with clearly specified authors in order to regulate the commodification and circulation of that work. The law protects the creations of those authors, and criminalizes the production of any copies made without their permission. In effect, the separation of the work from the author's name renders it illegitimate. (Boateng, 2013: 87-88)

Authorship as a phenomenon regulated by legal discourse is discussed in Practice 4, where asserting my authorship is part of developing an ethical 'calculus' in relation to issues of

copyright and ownership raised by *Selfie Portrait*. The significance of my authorial agency there lies not only in my capacity to claim the work as my own, but also in how that claim of ownership makes me responsible for the consequences of its production.

Summary

Engaging with how 'subjectivity' has been theorized helped me construct the conceptual tool that is 'extra-subjectivity'. By emphasizing experience as a fundamental aspect of subjectivity, I align myself with the notion that subjectivity and research are both more than the sum of their discursive positions. This emphasis acknowledges the humanness of subjectivities 'behind' user-generated content, allowing me to consider their authorial rights. I embraced Read's conception of subjectivity as simultaneously 'productive' and 'produced' when developing the concept of extra-subjectivity, but rejected post-Marxian discussions that designate *all* forms of cultural production as experiments of late capitalism.

My understanding of 'agency' draws on Giddens, Fuchs and Read, who emphasize a recursive relationship with social structures that both enable and constrain social subjects. I reject ANT, as my focus is on human agency, understood as a form of effective intentionality. The ability to shift registers when talking about human and non-human entities was important, since the former have different 'rights' that needed to be considered when investing a socially responsible ethic into my practice.

Authorship is seen as a human practice that shifts in relation to the conditions and subjectivities with which the artworks are produced. Negotiating the claim of authorship around my artworks is an enactment of my agency. Collapsing distinctions between production and consumption and Alan Kirby's concept of Digimodernist authorship informed my investigation into the role of the 'viewer' in *Flickr Nude or Noodle Descending a Staircase*. Foucault's concept of the author function was a recurring touch point both in coming to terms with the signifying function of my own proper name, and in taking responsibility for the consequences of producing my artworks.

INTRODUCTION

METHODOLOGY

LITERATURE REVIEW

PRACTICE REVIEW

PRACTICE 1

PRACTICE 2

PRACTICE 3

PRACTICE 4

THE COPYRIGHT EPISODE

CONCLUSIONS

BIBLIOGRAPHY

APPENDICES

Cybernetics and generative art

In the early stages of the research, I used the term 'cybernetics' to explore the extent to which a computer program could be understood to produce an artwork outside or beyond the artist's authorial agency. As the computer art produced during the art and technology movement of the 1960s adopted the language of cybernetics, it provided an initial context for my explorations.³⁰ Catherine Mason (2004: 2) defines cybernetics as 'the study of how machine, social and biological systems behave'. Maria Fernandez (2008: 7) states that cybernetics provided the 'theoretical backbone of the art-and-technology movement of the 1960s', and created a framework for thinking about the interactions of agents in human and artificial systems. In the UK, artistic interest in cybernetics culminated in the seminal 1968 exhibition *Cybernetic Serendipity*, curated by Jasia Reichardt for the Institute of Contemporary Art in London. This was a key exhibition of computer art, which 'unsettled neat notions of

human uniqueness by allowing machines to invade purportedly exclusive human domains' (Fernandez, 2008: 7). Many of the works used computers to generate artworks, introducing a non-human element to their production, and complicating the notion of human authorship. Considering these early computer artworks provided an historical context for the generative text works made in the early stages of my research (see Practice 1), and offered a way into thinking about generative art as a broader field of practice.

Although the field of cybernetics has radically evolved with the development and expansion of digital technologies, it did not provide the right conceptual framework for this research, as it is concerned with issues of artificial intelligence, machine learning, self-organization and emergence, collective intelligence and robotics, which model the mind according to an information-processing paradigm. For a detailed list of topics of interest to current cybernetics researchers, see the call for papers for SMC 2016, an international conference on 'systems, man and cybernetics' (SMC 2016: n.p).

³⁰ Charlie Gere notes that developments in computer technology have heavily influenced artistic practices since the 1960s (Gere, 2008: 80). Historical accounts of this can be found in Mason (2004, 2008), Gere, (2008), and Andrew Feenberg (2005).

By making and reflecting on the computer-generated artworks discussed in Practice 1, it became clear that my questions about authorship and agency were not best addressed in relation to cybernetics or artificial intelligence, as I had no intention to make claims about a computer's capacity to subjectively author an artwork independent of human input.

I initially situated my computer-generated artworks in relation to generative art, a field of production described by Philip Galanter as 'any art practice where the artist uses a system that operates with some degree of autonomy, and contributes to or results in a completed work of art' (Galanter, no date: n.p). I focused my review of generative art practices on those that have a textual emphasis, as the works I was making predominantly generated text.

Florian Cramer refers to the creation of systems designed to generate artworks as 'meta-making', or 'making something that makes':

Poiesis, making, becomes a second-order poiesis of making something that makes something else. So poetry, making, turns to poetics, the making of making.

When making turns into meta-making, subjectivity simply shifts to a second order position, residing in the formula instead of the product. This fact is being repeatedly ignored by critical observers whose perspective remains fixated on the product and who wrongly conclude, in a fallacy reminiscent of Plato's cave, that technology has done away with the subject behind the work. (Cramer, 2005: 87)

Cramer suggests that rather than eclipsing the subject, computational systems, which are always designed by humans, have subjectivity embedded into their 'formulas, processes and hardware' (Cramer, 2005: 87). Rather than denying the human origins of computational systems, it is important to acknowledge and investigate the 'aesthetics, subjectivity and politics' that they entail (Cramer, 2005: 88). Cramer's view helped me understand the computational systems that generated my artworks as being inscribed with my subjectivity. This contributed to my rejection of the notion that deploying such a system would eclipse my subjective, authorial agency from the production of an artwork.

Historically, the algorithmic production of text has presented challenges to the conventions of authorship and critiqued the construction of socio-linguistic systems. Challenges to the concept of authorship have been discussed further in the

Literature Review above. Tristan Tzara's 1923 work *To Make a Dadaist Poem* stated that cutting up newspaper articles, putting the fragments of text into a hat, and pulling them out at random, could create a Dadaist poem. Cramer suggests that *To Make a Dadaist Poem* describes an algorithmic process, and is 'the first modern art work based on a computational process and arbitrary input data' (Cramer, 2005: 76). By configuring poetics as mechanized formal instruction, Tzara defied the concept of the 'genius' that had been predominant in the Romantic era (Cramer, 2005: 76). Tzara's work contested the idea that only the elite could be poets or artists, and challenged the formal conventions of writing and art imposed by the Academy and sold to the bourgeoisie (Art History Archive, no date: n.p).

In 1959, William Burroughs and Brion Gysin developed the 'cut-up' method, which instructed people to take a pair of scissors to any text, cut it up and rearrange it in order to create something new. Like Tzara, Burroughs placed emphasis on the egalitarian quality of the cut-up technique, stating: 'Cut-ups are for everyone. Anybody can make cut-ups. It is experimental in the sense of being something to do' (Burroughs & Gysin, 1978: 31, italics in original). Burroughs

also wanted to contest the value assigned to poetry because of the cultural capital commanded by famous authors: 'Rimbaud announces himself, to be followed by some excruciatingly bad poetry. Cut Rimbaud's words and you are assured of good poetry at least if not personal appearance' (Burroughs & Gysin, 1978: 32). For both Tzara and Burroughs, there was an emphasis on how using generative methods could reconfigure socio-linguistic relations, and they successfully championed alternatives to prevailing formal artistic and literary conventions. However, as significant figures in literary and art history, it is clear that their author status remained stable. Dadaist strategies and the cut-up technique can therefore be understood as tools for loosening the author's grip on the origination of aesthetic or formal properties and meaning within their works, but not as something that eclipses their overall authorial status 'as' the artist. Tzara and Burroughs' practices helped me think about the extent to which my computer-generated artworks challenged conventional notions of authorship.

Nick Montfort notes that cut-up techniques have been employed in 'many aspects of new media, in computer literary practice as well as game theory' (Montfort, 2003: 89). Many

web-based text generators can now be found online. Some of these, such as Raven Black's *Random Surrealism Generator* (Black, no date) generate poetry, whilst others generate apparently coherent (though parodic) academic texts, such as Andrew Bulhak's *Postmodern Essay Generator*, modified by Josh Larios (Larios, no date: n.p). As Elizabeth Losh notes, online generated texts are

capable of particular rhetorical effects, particularly when they satirize individual agency in discourse... such generators offer a way to criticize how language itself is used and the rules by which utterances are assembled.' (Losh, 2011: n.p)

In my own generated text works, however, the focus was not on critiquing the social construction of language, but on loosening the grip of authorial control as a way to explore my artistic agency. I was also drawn to the aesthetic effects I could achieve by using a range of different source texts. In *39,063,100,000,000,000,000,000,000 Flies, after William Blake*, for example, Blake's poem *The Fly*, provided a medium for disrupting fixed meanings that *wasn't* ironic or parodic. It allowed me to generate new forms that retained the poetic qualities of the original text.

net.art generator – Cornelia Sollfrank

As I moved towards the web as a medium and location for my practice (see Practice 2), Cornelia Sollfrank's *net.art generator* (see Fig. 1.6) provided a salient reference work, as it situates computer generated processes online, provoking questions of authorship, originality and copyright that are specific to the web. The *net.art generator* is a web-based computer program that can be accessed through any web browser. Sollfrank states: 'The basic concept of the programme is to interactively collect and recombine material from the Internet to create new text, a new website or a new image' (Sollfrank, 2011: 31). Since 1998, five different versions of the *net.art generator* have been created with six programmers.³¹ I focused on *nag_05*, a version of the program that uses ImageMagick software to programmatically manipulate images retrieved from Google Images (Sollfrank, 2011: 34–35). This was of particular interest when making *Infinite Violets* and considering whether and how to apply a generative process to images as opposed to text (see Practice 2).

³¹ The work was made in collaboration with programmers Ryan Johnston, Luka Frelj, Barbara Thoens, Ralf Prehn, Richard Leopold and Panos Galanis (Sollfrank, 2011: 32–34).

As Sollfrank's work is located on the web, it allows a 'continuous user interaction...involving thousands of users and producing endless numbers of artworks' (Sollfrank, 2011: 50). Sollfrank thus not only opens her production process to a computer program, but also to a potentially endless number of other humans. This is an example of Kirby's conception of Digimodernist authorship, in which the reader *literally* as opposed to metaphorically produces the work.

For Sollfrank, there is a 'permanent confusion' over whether the actual artwork is 'the process/set of instructions/ programme for creating, or the results created by this process' (Sollfrank, 2011: 44). The instantiation of the process can be unambiguously attributed to Sollfrank, who notes that 'the concept for the project can be attributed to my name' (Sollfrank, 2011: 67). However, since the 'results' of the process (the images) combine already existing materials, it is 'no longer possible to attribute unambiguous authorship' to these (Sollfrank, 2011: 68). The images are thus a 'point of access' to specific questions of copyright (Sollfrank, 2011: 284). These questions are complicated further by the fact that Sollfrank prints, exhibits and sells physical versions of images

generated by *nag_05*, including a number based on Andy Warhol's *Flowers* pictures (see Fig. 1.7).³² Florian Cramer asks:

Who exactly is the creator of a Warhol flower variation computed by the net.art generators? Caulfield as their original photographer, Warhol as their first artistic adopter, Sollfrank as the artist who created the concept of the net.art generators, the programmers who technically designed and implemented them, the users of the net.art generator, or the running program itself? (Cramer, 2005: 83–84)

³² She proposed to show a series of these in a 2004 exhibition at the Forum for New Media [plug.in], in Basel, Switzerland, under the title *anonymous-warhol_flowers* (Sollfrank, 2011: 255). However, the exhibition was cancelled due to the organizers' fear of copyright infringement (Sollfrank, 2011: 258).

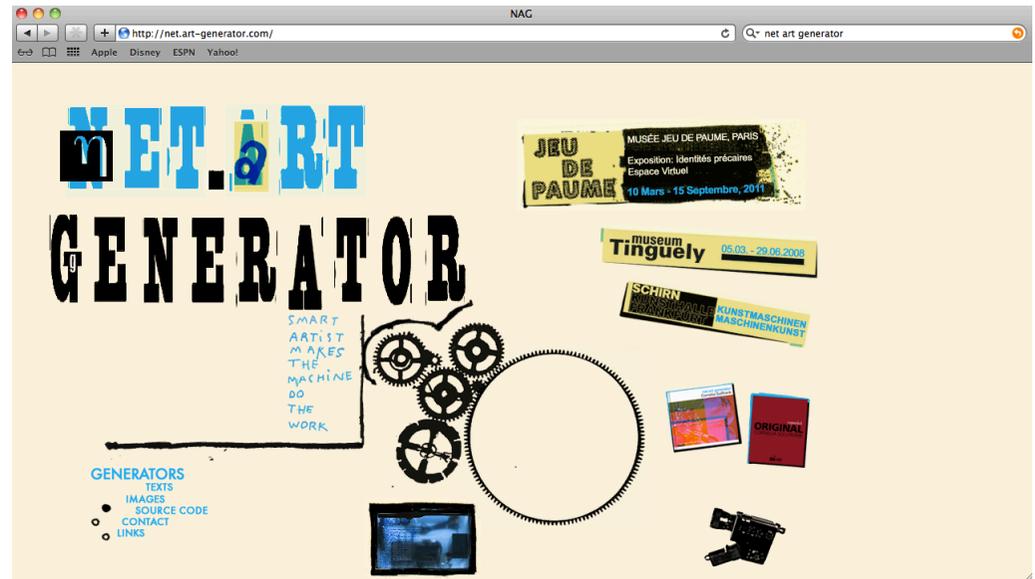


Fig. 1.6 Cornelia Sollfrank, *net.art generator*, 1999 onwards, screenshot (homepage). Image permission granted by Cornelia Sollfrank.

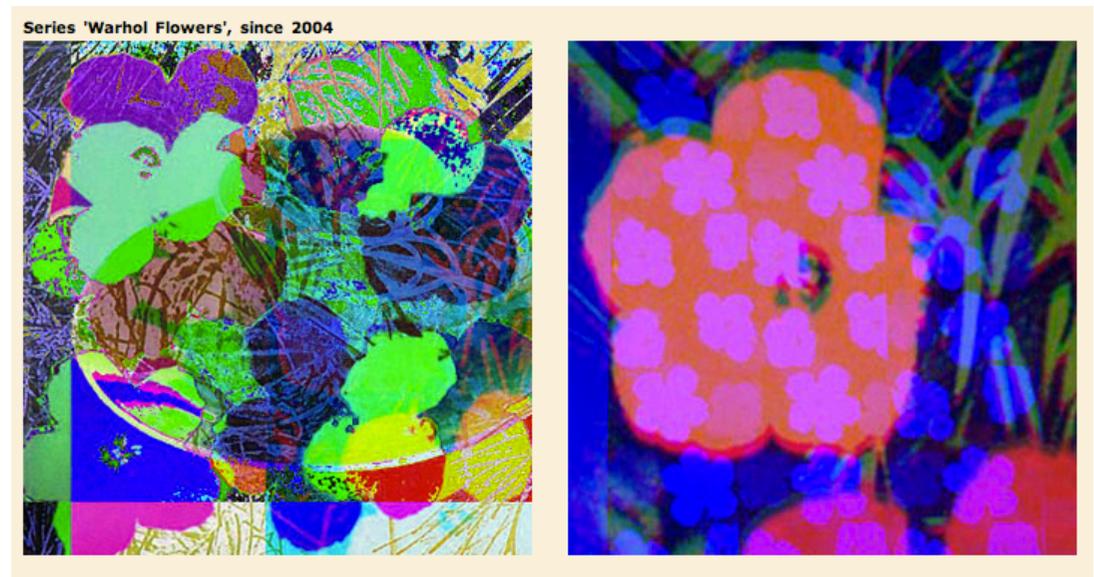


Fig. 1.7 Cornelia Sollfrank, *Warhol Flowers*, 2004 onwards, screenshot. Image permission granted by Cornelia Sollfrank.

Cramer signals here to the art-historically complex provenance of Warhol's flowers, which he appropriated from photographer Patricia Caulfield, and Elaine Sturtevant appropriated from Warhol.³³ He also posits various human and non-human agents as potential 'creators' of the Warhol flower variations. I would argue that although Sollfrank is not the only agent that 'creates' the Warhol flower variations, she is ultimately their meta-creator. Of course they appropriate prior versions of the images, but Sollfrank is the artist who instantiates the system that enables other human and non-human agents to contribute to the production of the work. Ultimately she is *accountable* for its production. This demonstrates that although Sollfrank relinquished a degree of control over the results of her system, her overall authorship remains intact. On one hand this appears to engender a paradox, whereby the artist both challenges and recuperates a conventional notion of authorship. On the other, it demonstrates that the work raises different questions of authorship in relation to its different 'levels' – the system, the images it produces, and the material and discursive contexts in which they are shown. The questions of

copyright and authorship raised in this work became relevant in relation to the production of *Selfie Portrait* (see Practice 4 and Chapter 4).

In a gallery context, the work is 'distinctly marked as an art project' explicitly ascribed to Sollfrank's name (Sollfrank, 2011: 286). She notes that her unambiguous status as the author of the overall concept for the work 'smoothly functions within the traditional economy of the art world' (Sollfrank, 2011: 67). In this economy, the artist is still understood as the distinctive author of the work. The art system thus continues to trade on the notions of authorship the work tries to subvert. The author function – the role of Sollfrank's name as a signifier that the viewer takes note of when encountering her work – has not been eclipsed by the involvement of the programmatic system, or the thousands of users who contribute to the work's production. The author function has been discussed in more detail in the Literature Review above.

³³ Sollfrank (2011: 264-273) gives a detailed account of the various layers of appropriation taking place in relation to Warhol's flowers.

Net art

Terms such as 'net.art',³⁴ 'Internet art' and 'post-Internet art' all come with a degree of mutability, as they designate a diverse and changing range of practices, which reflect broader techno-social changes. As Josephine Bosma notes:

There is not one true way to make Net Art. The Internet, or new media in general, is used in an abundance of ways in all kinds of art practices, often creating amazing crossovers and interdisciplinary wonderlands. (Bosma, quoted in Cont3xt.net, 2009: n.p)

Engaging with discussions about these terms helped me situate my practice as I started to engage with the web as a medium and location for my work (see Practice 2), and understand that I am working within an evolving, live field. For an historical account of net art see Bosma (2011).³⁵

³⁴ Sollfrank notes: 'The dot between the terms net and art was a reference to the nomenclature of computer files in the UNIX operating system' (Sollfrank, 2011: 54).

³⁵ Marisa Olson (2009) and Michael Connor (2015) discuss revisions to what the term net art might designate. For discussions of post-Internet art see Olson (2011), Gene McHugh (2011), Artie Vierkant (2010), Omar Kholief (2013), Brian Droitcour (2014) and Karen Archey and Robin Peckham (2014).

For Bosma, the flexibility of the term net art results from the fact that: 'The "net" in net art is both a social and a technological reference' (Bosma, 2011: 24). She rejects the idea that net art has to be browser based, or dependent on an Internet connection (Bosma, 2011: 24). As well as rejecting a medium specific definition of net art, Bosma criticizes the conflation of the terms 'net art' and 'web art', which are often used interchangeably:

Replacing the term 'net art' by 'web art' causes a negligence of art history within a political and economic environment. The radical implications of net art are replaced by the much less threatening aspects of web art. It therefore of course also becomes more compact, easier to grasp and more marketable. (Bosma, 2000: n.p)

In my own practice, I do not see the use of a browser as precluding *or* advancing an artwork's radical potential. A definition of net art that I found more useful was that established by Michael Connor for the 2015 Prix Net Art competition: 'net art acts on computer networks, and is acted on by them' (Connor, 2015: n.p). This definition resonated with my understanding of the recursive relationship of agency and structure, as discussed in the Literature Review. Curt

Cloninger proposes that there is a continuum between 'deep net art' and 'surface net art', which perhaps relates to a continuum between production and consumption:

Deep net art is net art made by programmers/coders/hackers who attempt to modulate the network by opening up its hood and tweaking it down toward its protocological core. Surface net art is net art made by artistic net surfers who attempt to modulate the network by staying on the surface of the network and tweaking in amongst the images, animations, videos, human languages, and other readymade media that travel across its surface. (Cloninger, 2009: 6)

The arc of my research could be understood as an attempt to move further along the continuum from the surface towards the protocological core, although I would not consider myself a programmer, coder or hacker, and as such have not 'reached' this end of the continuum.

By 1995 artists had set up a number of mailing lists, bulletin board systems (BBS) and forums focusing on critical discussions of art that engaged with the Internet.³⁶ Much of

the discussion about early net art took place on the Nettime mailing list, initiated by Geert Lovink and Pit Schultz in 1995, which provided a social, discursive and intellectual framework for the development of the field. The list was conceived of as 'a radical counter force against a so-called 'disneyfication' of the Internet in all its aspects' (Bosma, 2000: n.p). It started as a small community of around ten people including artists Heath Bunting and Paul Garrin, who were at least initially united by a shared set of goals: 'Being a member of nettime more or less equalled joining [a] battle against commerce, corporate powers, techno-ignorance and cultural deprivation' (Bosma, 2000: n.p). In her later writing, Bosma rejects the notion that net art designates a specific 'ideological routine' (Bosma, 2009: n.p).

However, the net art of the 1990s is often associated with this small group of artists and characterized by 'a specific approach to the use of technology and the anti-institutional politics of their work' (Olson, 2009: n.p). In this sense it can be

activism, media art and cultural criticism concerned with exploring the possibilities of electronic networks' (The Thing, no date: n.p). It initially took the form of a BBS focusing on contemporary art and cultural theory, and then launched a website, <http://bbs.thing.net>, in 1995. This initial website is now archived, and THE THING operates from <http://the.thing.net/>. Rhizome was also a prominent online forum for promoting artistic activities and debate.

³⁶ An early example of an art-focused online forum was 'THE THING', founded in 1991 by Wolfgang Staehle, which is described as a 'flexible and supportive venue for developing, presenting and distributing innovative forms of on-line

seen as a 'bounded' stage in the development of art that engages with the Internet. Following this, it is not a category with which I would associate my practice.

Surf clubs and Tumblr

As I continued trying to contextualize my own emerging practice, I found it useful to look at some of the discursive social networks underpinning contemporary forms of art engaging with the web. Since the early days of specialized text-based exchanges, the rise and commodification of social media has radically expanded the audience for and participative reach of social communication culture.

The commodification of social networks was seen, by some, to threaten the radical potential of net art, and has been critiqued by cultural critics including members of the *Unlike Us* initiative at the Institute of Network Cultures, University of Amsterdam:

On the one hand new media create and expand the social spaces through which we interact, play and even politicize ourselves; on the other hand they are literally

owned by three or four companies that have phenomenal power to shape such interaction. Whereas the hegemonic Internet ideology promises open, decentralized systems, why do we, time and again, find ourselves locked into closed corporate environments? (Institute of Network Cultures, 2013b: n.p)³⁷

Cramer also sees the commodification of social networking by corporate platforms as one of the challenges facing contemporary artists working with the web:

The notion of an Internet-specific social communication culture has migrated from artist- and activist-run online systems (fully in parallel and agreement with the movement of artist-run spaces) to corporate services like Blogspot.com and Facebook, which have turned social networking into a commodity. (Cramer, 2011: 11)

He suggests that this shift from social networking being conducted amongst a group of specialist net artists with common interests to a ubiquitous form of cultural production had a 'detrimental effect on the net art ethos of self-designed and self-organized media' (Cramer, 2011: 11).

³⁷ *Unlike Us* is 'a research network of artists, designers, scholars, activists and programmers who work on "alternatives in social media"' (Institute of Network Cultures, 2013b: n.p). Their work can be seen as a continuation of the ideological battle, expressed by Bosma, to resist the domination of social networks by commerce and corporate powers.

More recently, artists (arguably, also ‘specialists’ with common interests) have used Internet ‘clubs’ as forms of social network. For a comprehensive list of these, see Paul Slocum (2016), and for a nuanced discussion of the nature of surf clubs see Cloninger (2009). Slocum distinguishes between ‘surf clubs’, ‘art clubs’ and ‘related sites’. The term ‘surf club’ ‘originated from the Nasty Nets group blog tagline “Internet Surfing Club,” and is often used to describe group artist blogs where the prevailing subject is internet culture and aesthetics and where lines are blurred between the roles of artist, curator, and archivist’ (Slocum, 2016: n.p). Slocum uses the term ‘art club’ to describe ‘similar artist group blogs that do not actually have much to do with web surfing. Instead, they may explore digital illustration and collage, or use a group blog to explore connections between works of non-internet art’ (Slocum, 2016: n.p). Typically built on Wordpress or (later) Tumblr, Internet clubs can be seen as a form of practice that characterizes the transition from net art to the almost ubiquitous adoption of corporate social media by artists born in the mid-late 1980s. Karen Archey notes:

While surf clubs such as Nasty Nets, Club Internet, and Computers Club began appearing in the mid-naughts,

just before the full blossom of Web 2.0, their unique functionality was soon replaced circa 2009 by easier-to-use, democratized image sharing platforms, namely Tumblr. (Archey, 2013: 1)³⁸

Similarly to mailing lists, surf clubs and art clubs are based on real-life connections and friendship, and as such they can appear ‘insular and cliquish’ (Droitcour, 2009: n.p). In an article about the *Loshadka* surf club, Droitcour notes: ‘Everyone in the community likes each other, so messages in the comment section tend to be positive, if oblique’ (Droitcour, 2009: n.p). As I began experimenting with Tumblr, I found that this ‘easier-to-use, democratized’ platform *was* easy to use, but this did not mean that it offered a meaningful community of practice. This is discussed further in Practice 2.

During this research I subscribed to and participated in specialist mailing lists and social networks as well as using corporate social media platforms (Tumblr, Flickr and Instagram) as a medium and location for my practice.³⁹

Operating across these online spaces helped me develop a

³⁸ Slocum puts *Computers Club* in the ‘art club’ category, and *Club Internet* in ‘related sites’ (Slocum, 2016: n.p).

³⁹ For example, I subscribe to the Association of Internet Researchers, Nettime, Netbehaviour and Unlike Us mailing lists, and am a member of the Selfies Research Network Facebook group.

form of mobility as an artist. Rather than rejecting all forms of corporate social media on an ideological basis, I accept them as part of the conditions under which I am a producer, but hope to be able to reflect on or expose them as problematic and compromised. Being part of mailing lists that often critiqued the use of corporate social media helped me reflect on my own use of it, rather than providing space in which the artworks were made. It also helped me develop a network and context for my practice, introducing me to artists and others with similar interests.

The creation of *1000 Truly Original Ideas* (see Practice 2) prompted a review of artists using Tumblr as a context and medium for their work. Tumblr is a popular image based micro-blogging platform and social network created by David Karp in 2007. It enables social processes of sharing, commenting, messaging, tagging and liking through the reblog button, which allows users to post a copy of someone else's post to their own blog. A 'Share on Tumblr' bookmarklet also allows users to post content from elsewhere on the web. Ben Valentine provides an overview of contemporary artists using Tumblr:

'Lacan Cat' by Alli Miller, 'Sony HD' by Giordano Matteo, 'Friendster Friday' by Ian Aleksander Adams, 'Hyper Geography' by Joe Hamilton, 'Cloaque' by Carlos Sáez and Claudia Maté, and 'Echo Parade' by Brad Troemel and Jonathan Vingiano all function within this young medium, and all are using the inherent qualities of Tumblr to varying degrees. (Valentine, 2013: n.p)⁴⁰

In 2013, Tumblr and *Hyperallergic*, a Brooklyn based online art blog, staged 'The World's First Tumblr Art Symposium' at 319 Scholes Street, Brooklyn, New York (Hyperallergic, 2014: n.p). The event comprised an exhibition, discussions, and a series of commissioned essays. The Tumblr artwork that I found most compelling was Joe Hamilton's 2011 work *Hypergeography*, discussed in the following section.

Hypergeography – Joe Hamilton

In *Hypergeography* Hamilton was interested in representations of 'natural, built and networked environments', and he mined Tumblr for images evoking this theme (Hamilton, quoted in Jason Huff, 2011: n.p). He used digital imaging techniques to

⁴⁰ *Echo Parade* is no longer functioning, and as I was unable to find an archived version, it is not listed in the bibliography. For a description of the project, see Jonathan Vingiano (2011b).

collage other users' Tumblr images together to create a series of over 100 images that, when posted in the customized Tumblr, link together horizontally and vertically (see Figs. 1.8 and 1.9). The viewer can click on any square in the collage to view the Tumblrs from which images were originally taken. Each individual post has 'notes' attached to it to show how many people have liked or reblogged it. The production and circulation of the work is partly structured by Tumblr's technical mechanisms: the reblog and like buttons are a way for the audience to respond to and re-produce the work. It is not possible to see how many followers *Hypergeography* has, as Tumblr does not make this information publicly available. However, the number of likes and reblogs associated with each post shows that a significant number of people have engaged with the work. The uppermost post had 157 notes on 29 June 2015 (Fig. 1.9), whilst the bottom left had 1292 notes (Fig. 2.0).⁴¹ As Bosma suggests, the development of art in computer networks is 'part of, or in addition to a larger electronic culture' (Bosma, 2000: n.p). Artists on Tumblr by necessity operate in and amongst the larger community of users who would not necessarily self-identify as artists.

The audience for *Hypergeography* is clearly not limited to 'Tumblr artists', or even general Tumblr users, as it received a significant amount of media attention from the international art press, and was featured on Rhizome.org (Huff, 2011), and in an article by Dominikus Müller in the German edition of *Frieze* magazine, (Müller 2012). Hamilton also produced a video version of the work, which was exhibited in *Notes on a New Nature*, at 319 Scholes, New York (319 Scholes, 2011), as well as online (see Fig. 2.1). In 2014, the work was reiterated in the physical form of a book, created in collaboration with Jean Boîte Éditions, 2014 (see Fig. 2.2). This is an example of an artwork that, although very much 'of the platform', was directed towards other online and offline channels of distribution and validation.

⁴¹ I counted these manually, as the work does not display these numbers.

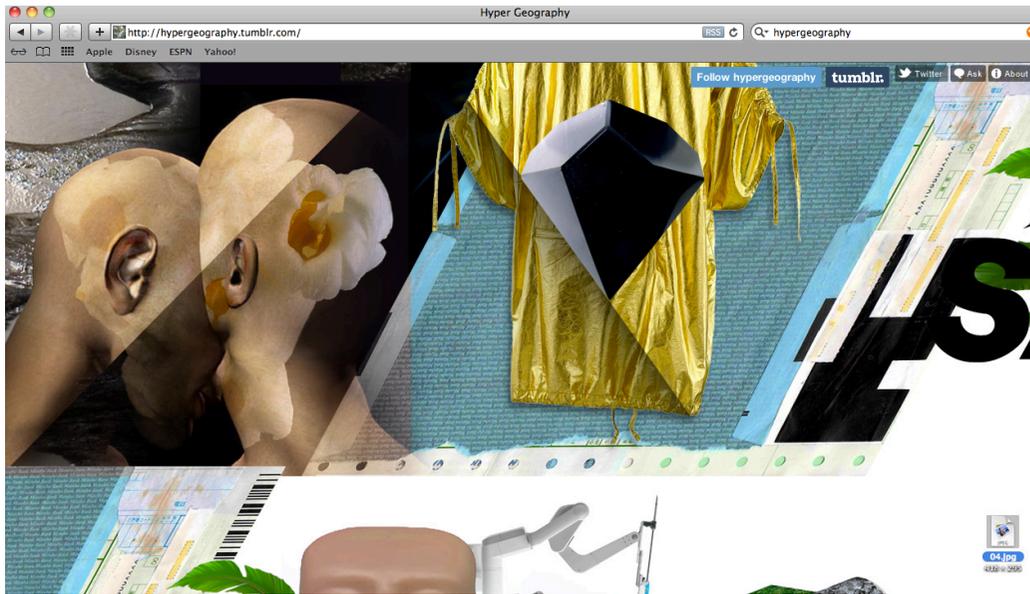


Fig. 1.8 Joe Hamilton, *Hypergeography*, 2011, screenshot 1 (homepage).

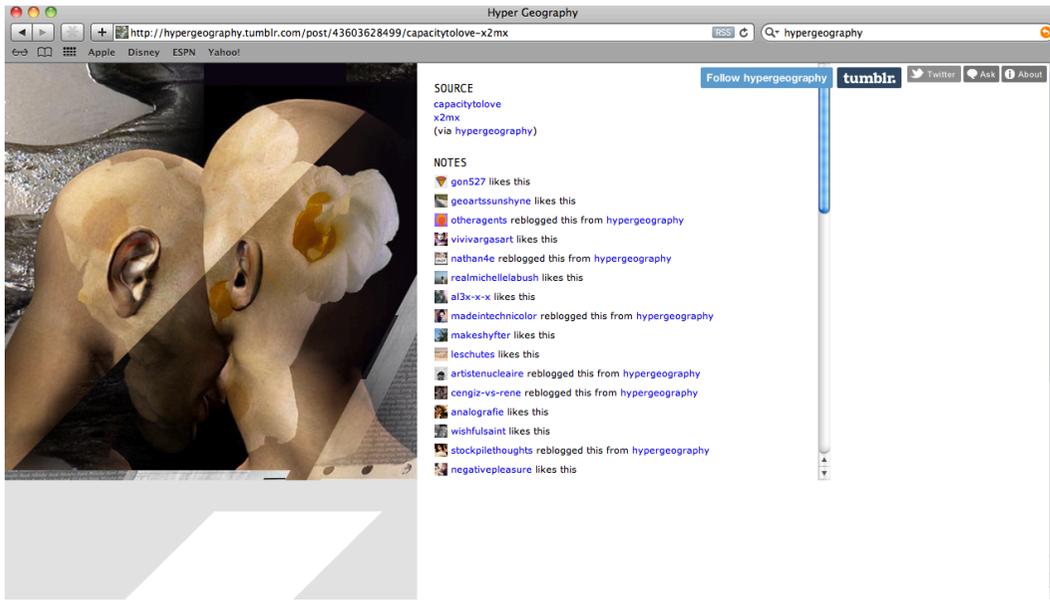


Fig. 1.9 Joe Hamilton, *Hypergeography*, 2011, screenshot 2.

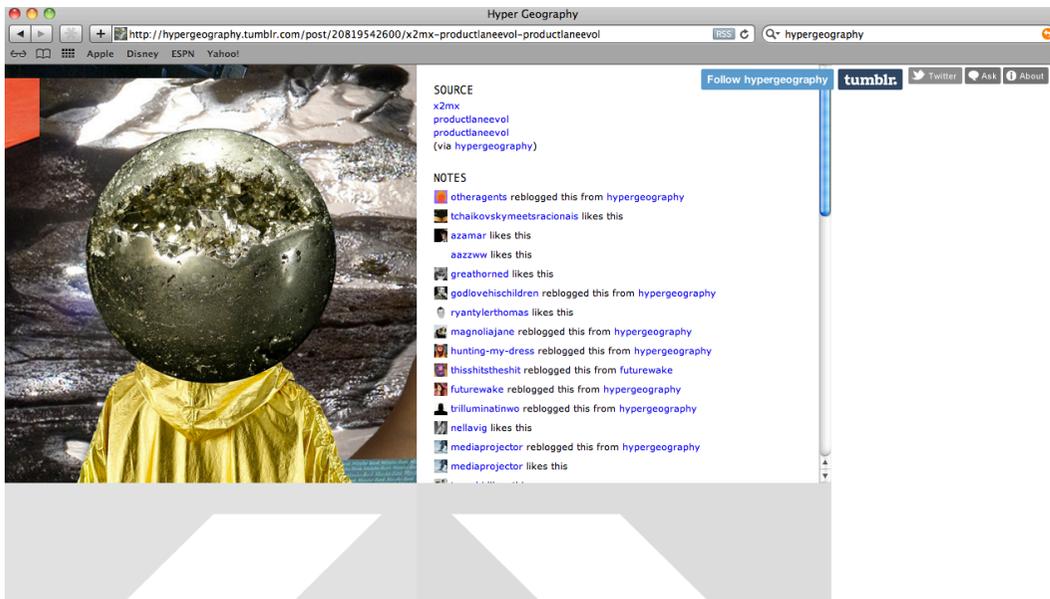


Fig. 2.0 Joe Hamilton, *Hypergeography*, 2011, screenshot 3.

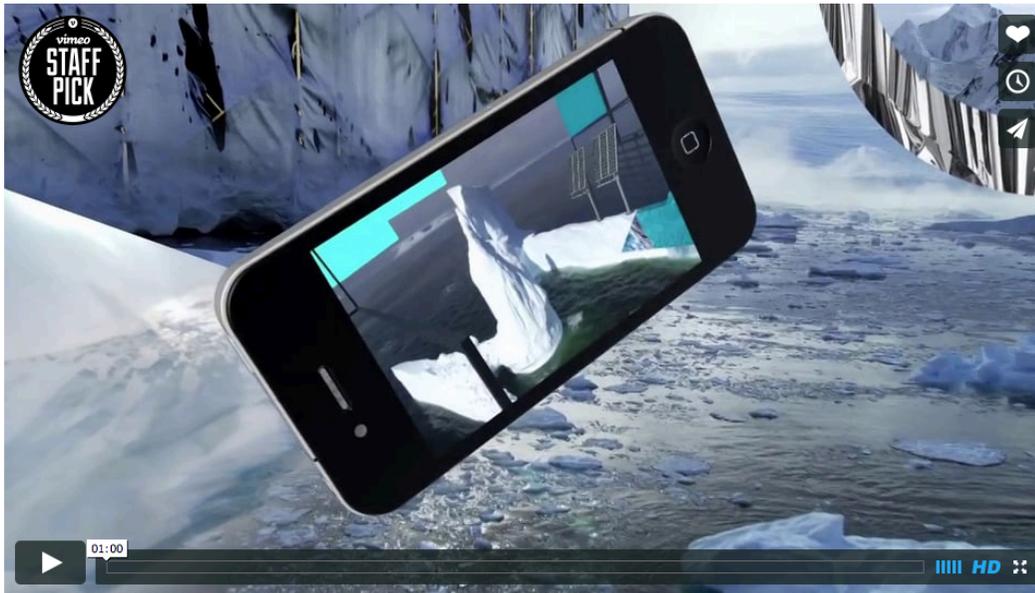


Fig. 2.1 Joe Hamilton, *Hyper Geography*, 2011, video still.



Fig. 2.2 Joe Hamilton, *Hypergeography*, 2014, book published by Jean Boîte Éditions. Image permission granted by Jean Boîte Éditions.

Hamilton states that he prefers to think of Tumblr as a 'medium, rather than a platform' (Hamilton, quoted in Huff, 2011: n.p). I take this to mean that he sees the whole Tumblr system and its socio-technical properties as something he can manipulate, rather than seeing Tumblr only as a 'given' means of disseminating images. This helped me to see that in *1000 Truly Original Ideas*, I was only using Tumblr as a means of dissemination. As with my discovery of digital methods, discussed in the Methodology chapter above, Hamilton's work encouraged me to think how I could treat the web as a medium.⁴²

Conventional forms of audience attention from galleries, curators and the art media, *and* from Tumblr users played a role in the overall reception of *Hypergeography*. This demonstrates the multiple forms of dissemination available within and beyond the art system, which enable artists to reproduce their work in a variety of forms. Hamilton's 'market-friendly' versions of *Hypergeography* may be seen as at odds with net art's original aim to 'fight or resist the art

market', and to challenge the idea of art as a commodity good (Bosma, 2000: n.p). However, the fact that they co-exist with the Tumblr version implies that different spaces (galleries, websites, bookshops or others) can make web-based works visible in various iterations that do not preclude each other. In my own practice, creating different versions of the works for different contexts and environments, such as the web and gallery exhibitions, was a way of developing a form of 'mobility' as an artist, rather than limiting myself to the web as an exclusive space in which to make and show works. As discussed in Practice 3, showing *Flickr Nude or Noodle Descending a Staircase* in a gallery and allowing people to interact with it in a social setting brought something new to the work itself.

Hypergeography also related to my concerns about appropriating other people's images in my artworks. Hamilton 'attributes' each image to its original author by hyperlinking to the source Tumblr where it was originally posted (the ethics of appropriating online images are discussed in detail in Chapter 4). Hamilton, however, clearly retains his authorial status by conceiving of the work, selecting and collaging the images, and presenting them through his code. He has the

⁴² I actually moved entirely away from Tumblr, but considering ways to manipulate it as a medium may be a fruitful area for further exploration in my practice.

highest level of authorial intentionality over the work. As is the case with Sollfrank, the circulation of Hamilton's work within the art system demonstrates that, whilst it incorporates the productions of many other individuals, the author function is still in play.

Artistic strategies from appropriation to aggregation

As I began to programmatically access images through the Flickr and Instagram APIs, (see Practice 3 and Practice 4), it was useful to think about appropriation as an historicized artistic practice and to consider whether there has been a paradigm shift from the appropriation strategies adopted by the 'Pictures Generation' artists of the 1980s to current practices of web-based appropriation.

In the visual arts, appropriation is the 'intentional borrowing, copying, and alteration of pre-existing images and objects' (MOMA, no date: n.p). Lisa Phillips (1992: 30) notes that in the 1980s, appropriation took on new significance within the context of mass media and consumerism and a post-

modernist critical framework expounded by critics including Abigail Solomon-Godeau, Douglas Crimp, Hal Foster, Rosalind Krauss, Tom Lawson, Kate Linker and Craig Owens. These critics saw artists' use of photographic means in particular as 'a chance to define a critical postmodernist art' that would challenge Modernist notions of originality, authorship and authenticity (Phillips, 1992: 30). The medium of photography was significant because of its 'special role... in dispelling the mystique of "origin" that had settled on the work of art' (Foster *et al.*, 2004: 581). Having internalized the 'lessons' of Walter Benjamin's 1936 essay *The Work of Art in The Age of Mechanical Reproduction*, Pictures Generation artists, such as Sherrie Levine

thoroughly understood the condition of the photograph as a 'multiple without an original.' Thus the cult-value of the unique object, the artistic original whose aesthetic magic or 'aura' would be voided by the invalidity of a copy or fake, was held up to question by the very nature of photography. (Foster *et al.*, 2004: 581)

In particular, Levine and Richard Prince were

upheld as exemplary figures: their minimal mediation represented a new paradigm. They were seen as the

most programmatic in their contestation of notions of subjectivity, originality – and especially authorship. (Phillips, 1992: 30–31)

In 1977 Prince re-photographed a series of interiors from the *New York Times* magazine using 35mm film, bringing assumptions about the ownership of public images into question. Levine's 1980 work *Untitled, After Walker Evans*, in which the artist re-photographed a series of photographs by Walker Evans and presented them as her own, was 'a landmark of postmodernism' (Metropolitan Museum of Art, 2000: n.p). In this work Levine was seen as going beyond just challenging Weston's legal status as the owner and copyright holder of the work. Instead, Hal Foster *et al.* note, 'her appropriation was taken as extending into Weston's very claim to originality, in the sense of being the origin of the images' (Foster *et al.*, 2004: 580). Significantly for my question about a paradigm shift within appropriation strategies, this was a discipline-specific, self-referential, inter-textual and historical gesture. Levine – an established artist - was appropriating work by an established photographer, within an art-historical context.

In December 2014, the Denny Art Gallery in New York mounted *Share This! Appropriation After Cynicism*, an exhibition exploring contemporary practices of appropriation. In a review of the exhibition, critic Joseph Henry states:

What's new is the alacrity and ease with which appropriation can occur on a mass level. The obvious historical paradigm shift between late and high appropriation is the changed technologies: image duplication and distribution. (Henry, 2015: n.p)

Although appropriation has featured heavily in art and culture at large for decades, the web has accelerated and amplified its application and distribution to such a degree of magnitude that it has changed in character and consequence. In 1982, Douglas Crimp suggested:

Appropriation, pastiche, quotation – these methods extend to virtually every aspect of our culture, from the most cynically calculated products of the fashion and entertainment industries to the most committed critical activities of artists...If all aspects of the culture use this new operation, then the operation itself cannot indicate a specific reflection upon the culture. (Crimp, 1982: 126)

Today, as a result of the de-differentiating forces of the web, appropriation, pastiche and quotation are not only

undertaken by media industries and artists, but an even wider group of (often 'amateur') cultural producers. It is a fundamental feature of remix culture, discussed in Chapter 4.

In *Postproduction* Nicholas Bourriaud places strategies of remixing, editing, and re-contextualization at the centre of the production of contemporary artworks. However, although Bourriaud claims that *Postproduction* takes, as its point of departure, 'the changing mental space that has been opened up for thought by the Internet' (Bourriaud, 2002a: 8), the artists he discusses, including Rirkrit Tiravanija, Pierre Huyge, Jorge Pardo, Felix Gonzales-Torres and Liam Gillick (Bourriaud, 2002a: 8–9), are not producers operating in the field of net art, Internet art or even new media art conceived very broadly. They often, like the Pictures Generation artists, re-use the works of already famous artists. Bourriaud does not address the medium specificity of the Internet, or sufficiently describe new paradigmatic strategies of appropriation that characterize current web-based art practice. As Marialaura Ghidini states:

There is no specific focus on the workings of the Web as a site of production, display, and distribution; instead the Web is used as an allegory to indicate the

'cultural chaos' in which artists operating in the 1990s found themselves. (Ghidini, 2012: n.p)

In her 2012 *Artforum* article 'The Digital Divide', Bishop states:

Faced with the infinite resources of the Internet, *selection* has emerged as a key operation; we build new files from existing components, rather than creating from scratch. Artists whose work revolves around choosing objects for display (Bove, Johnson) or who reuse previous art (Olowska with Stryjenska, Simon Starling with Henry Moore, Ryan Gander with Mondrian) are foregrounding the importance of selection strategies, even when the outcome is decisively analog. Questions of originality and authorship are no longer the point; instead, the emphasis is on a meaningful recontextualization of existing artifacts. (Bishop, 2012: 438)

Like Bourriaud, Bishop's examples here are not of artists engaging specifically with the web. Rather, she focuses on the reuse of works by established artworld figures by *other* established artworld figures.

Artie Vierkant, however, notes that a number of contemporary artists proclaim an authorial stance by 'indexing' or 'curating' items of culture including those that have been created *without* necessarily being described as art (Vierkant, 2010: n.p). Examples of artists taking this approach

include Cory Arcangel (*Sorry I Haven't Posted*, 2010 and *Working on My Novel*, 2009–2014),⁴³ Brad Troemel and Jonathan Vingiano (*Blind Mist*, 2011)⁴⁴ and Nick Hasty, Sergio Pastor, and Ryan Trecartin (*Riverofthe.net*, 2010).⁴⁵ Vierkant states: 'Artists after the Internet thus take on a role more closely aligned to that of the interpreter, transcriber, narrator, curator, architect' (Vierkant, 2010: n.p).⁴⁶

⁴³ *Sorry I Haven't Posted* was a 'Blog which re-posts the best blog posts of people apologizing for not posting to their blogs' (Arcangel, 2010a: n.p).

Working on My Novel was a 'Twitter Feed which re-tweets the best posts featuring the phrase "working on my novel"' (Arcangel, 2012–2014: n.p).

⁴⁴ At the time of submission, *Blindmist.com* is no longer available, so is not listed in the artworks section of the bibliography. It was 'a system of images, generated by URLs of websites provided by visitors. *Blind Mist* was constantly reading from the user submitted URLs to add images to itself. There are over half a million images in the system and no two visitors share the same experience' (Vingiano, no date: n.p).

⁴⁵ *Riverofthe.net* was based on an idea by Ryan Trecartin and Tumblr founder David Karp, developed as part of Rhizome's 'Seven on Seven' commission. It is 'a continuous stream of 10 second, user submitted videos. Videos are tagged with 3 words or phrases, and videos with the same tag are linked together to create a playlist. The result is a frenetic and often hilarious juxtaposition of videos. The site is currently a collaboration between Nick Hasty, Sergio Pastor, and Ryan Trecartin' (Karp *et al.*, 2010: n.p).

⁴⁶ Corporate social media platforms such as Tumblr, Flickr and Pinterest also enable people who may not necessarily self-identify as artists to aggregate, organize and 'curate' images, videos, texts or other cultural artefacts. These processes constitute one of the dominant production conditions brought about by the web.

Like appropriation and pastiche, selection has also emerged as a key operation in the broader field of web-based cultural production, where platforms such as Pinterest place emphasis on collecting and organizing images according to personal interests or aspirations. Thus, another dominant production condition of the web is the reframing of authorship *as* a process of selecting, organizing and aggregating other people's content.

As well as the shift from appropriating art or media imagery towards appropriating user-generated content, the technical means of 'high appropriation' are paradigmatically distinct, having shifted away from photography towards the techno-social space of the web. Artists are able to use digital objects (to use digital methods terminology) such as reblogs, tweets, images, URLs and hashtags in order to programmatically aggregate and re-present user-generated content.

Furthermore, they are not only appropriating digital objects, but online platforms themselves. As Marialaura Ghidini puts it: 'strategies of confiscating, re-arranging and customizing ready-to-use web interfaces might occur as a reflection on the distributive properties of the adopted platform' (Ghidini, 2012: n.p).

Flickr Nude or Noodle Descending a Staircase and *Selfie Portrait* adopt a similar strategy in that they 're-arrange' Flickr and Instagram, in order to bring bodies of user-generated content into new temporary formations. Web-based processes of selecting, indexing and aggregating online cultural artefacts do not eclipse questions of authorship as Bishop suggests. Rather they demand distinct questions of authorship – particularly about the implications of (often programmatically) appropriating items of culture created by a wide range of people belonging to online communities, including non-artists. This is explored further in Practice 3 and Practice 4.

Summary

The term cybernetics was adopted briefly in the beginning of the research, but rejected, as its emphasis on computational systems and artificial intelligence did not provide the right conceptual framework for addressing my questions about human agency and authorship.

Cramer's concept of second-order poiesis contributed to my rejection of the notion that deploying a computational system would eclipse my subjective, authorial agency from the production of an artwork. Tzara's Dadaist poetry and Burroughs' cut-up method championed alternatives to prevailing formal and literary artistic convention, and offered tools for loosening the artists' grip over formal properties and the origination of meaning *within* their works. More recently, online text generators have enabled critiques of the social construction of language. In my own works the computational generation of texts was a way to explore whether a form of effective intentionality was possible 'outside or beyond' me.

Sollfrank's *net.art generator* provided a salient reference work, as it provokes questions of authorship, originality and copyright that are specific to the web. The images the generator produces are the 'access point' to questions of copyright, since they involve the appropriation of existing material. These questions are complicated by images' circulation in the art system, which demonstrates that the author function is still in play, despite the challenges to authorship the work instantiates.

Discussions about 'net art', 'Internet art' and 'post-Internet art' helped me further situate my practice and I moved away from computational generativity. Artists' Internet clubs and critiques of the commodification of social networks provided another context for my practice. Rather than rejecting all forms of corporate social media on an ideological basis, I accept them as part of the conditions under which I am a producer, but hope to be able to reflect on or expose them as problematic and compromised. I used Joe Hamilton's *Hypergeography* to reflect on the use of Tumblr in my practice. Hamilton's modification of the work for online, gallery and print demonstrates that adapting work for different contexts is part of the role of an artist engaging with the web. Hamilton attributes each image to the original author by hyperlinking to their own Tumblrs, but as with Sollfrank's *net.art generator*, the circulation of *Hypergeography* within the art system demonstrates that the author function is still in play.

Appropriation strategies specific to the web are paradigmatically different to the appropriation strategies of the Pictures Generation, or those described by Bishop and Bourriaud. The paradigm shift has been enabled and driven by digital technology (shifting from a focus on photography

amongst Pictures Generation artists towards the web). Web-based appropriation often involves taking user-generated material on commercial and social networking sites rather than just mass media imagery or artworks circulating in the art system. Appropriation on the web also involves the appropriation of the platforms on which user-generated content exists. These forms of 'high appropriation' demand distinct questions about the implications of (often programmatically) appropriating items of culture created by a wide range of people belonging to online communities, including non-artists.

INTRODUCTION

METHODOLOGY

LITERATURE REVIEW

PRACTICE REVIEW

PRACTICE 1

PRACTICE 2

PRACTICE 3

PRACTICE 4

THE COPYRIGHT EPISODE

CONCLUSIONS

BIBLIOGRAPHY

APPENDICES

Fig. 2.3 *Topic Generator*, 2011, screenshot 1, p. 83.

AUTOPOIETICS OF COLLABORATION: TOWARDS AN AUTONOMOUS ITERATIVE AUTHORSHIP

Cybernetics of collaboration: in search of an emerging distanced monthly publication
Assemblages of collaboration: in search of a systems-based distanced epistemology
Ecologies of collaboration: finding a responsive integrated thought experiment
Assemblages of collaboration: finding an embodied self-organised agency
Logics of collaboration: towards an automated mental language
Assemblages of collaboration: in search of a random proliferating computer art
Assemblages of collaboration: towards a communicative knowing art criticism
Ecologies of collaboration: finding a self-generating mental language
Assemblages of collaboration: towards a random generative amateurism
Logics of collaboration: towards a self-creating appropriated project
Logics of collaboration: in search of a self-generating situated project
Ecologies of collaboration: finding a stochastic mental project
Cybernetics of collaboration: finding a stochastic practice-based methodology
Logics of collaboration: towards an amateur authorial amateurism
Assemblages of collaboration: towards a responsive distanced art criticism
Cybernetics of collaboration: finding a systems-based self-organised mind
Cybernetics of collaboration: towards an embodied autopoietic monthly publication
Cybernetics of collaboration: finding a self-generating mental installation art
Autopoietics of collaboration: finding a stochastic integrated art criticism
Assemblages of collaboration: finding an entropic generative project
Cybernetics of collaboration: towards an automated swarming art criticism
Ecologies of collaboration: towards a systems-based swarming language
Assemblages of collaboration: finding a systems-based integrated mind
Autopoietics of collaboration: finding a communicative autopoietic installation art
Logics of collaboration: towards an emerging appropriated entity
Ecologies of collaboration: towards a thinking autopoietic language
Autopoietics of collaboration: in search of a communicative knowing thought experiment
Autopoietics of collaboration: finding an automated integrated computer art
Cybernetics of collaboration: in search of an intersubjective practice-based art criticism
Autopoietics of collaboration: towards a systems-based entity amateurism
Ecologies of collaboration: finding an entropic extrasubjective amateurism

Fig. 2.4 *Topic Generator*, 2011, screenshot 2, p. 85.

ECOLOGIES OF COLLABORATION: IN SEARCH OF A COMMUNICATIVE SITUATED PROJECT

Assemblages of collaboration: finding an amateur practice-based group exhibition
Autopoietics of collaboration: towards a random practice-based monthly publication
Logics of collaboration: towards a recursive entity art criticism
Logics of collaboration: in search of an embodied extrasubjective language
Assemblages of collaboration: finding a thinking swarming entity
Autopoietics of collaboration: towards an autonomous iterative authorship
Cybernetics of collaboration: in search of an emerging distanced monthly publication
Assemblages of collaboration: in search of a systems-based distanced epistemology
Ecologies of collaboration: finding a responsive integrated thought experiment
Assemblages of collaboration: finding an embodied self-organised agency
Logics of collaboration: towards an automated mental language
Assemblages of collaboration: in search of a random proliferating computer art
Assemblages of collaboration: towards a communicative knowing art criticism
Ecologies of collaboration: finding a self-generating mental language
Assemblages of collaboration: towards a random generative amateurism
Logics of collaboration: towards a self-creating appropriated project
Logics of collaboration: in search of a self-generating situated project
Ecologies of collaboration: finding a stochastic mental project
Cybernetics of collaboration: finding a stochastic practice-based methodology
Logics of collaboration: towards an amateur authorial amateurism
Assemblages of collaboration: towards a responsive distanced art criticism
Cybernetics of collaboration: finding a systems-based self-organised mind
Cybernetics of collaboration: towards an embodied autopoietic monthly publication
Cybernetics of collaboration: finding a self-generating mental installation art
Autopoietics of collaboration: finding a stochastic integrated art criticism
Assemblages of collaboration: finding an entropic generative project
Cybernetics of collaboration: towards an automated swarming art criticism
Ecologies of collaboration: towards a systems-based swarming language
Assemblages of collaboration: finding a systems-based integrated mind
Autopoietics of collaboration: finding a communicative autopoietic installation art
Logics of collaboration: towards an emerging appropriated entity

The generative phase

Topic Generator

Topic Generator was an early experiment that reflects the openness of the field of enquiry at the beginning of research. It was the catalyst for a series of computer-generated works (discussed later in this chapter and in Practice 2), which enabled me to reflect on my authorial agency in relation to a computer program. In contrast to later works such as *Infinite Violets*, which had a more defined aesthetic intentionality, *Topic Generator* was a relatively open-ended means of launching the research. It was a generative moment, the unpredictability of which set the research into motion. The rudimentary aesthetic quality of *Topic Generator* reflects the fact that generativity and experimentation were higher on my mind at this stage than on creating a 'polished' artwork.

Topic Generator uses an algorithm and a database of 69 words to generate alternative titles for my PhD (see Fig. 2.5). The generated titles are displayed on a webpage, appearing one after another in an ongoing, scrolling list. Each generated title is

hyperlinked, and when clicked it takes the viewer to a page of search engine results that are generated by the title being automatically entered into Google Scholar (see Fig. 2.6).

The terms contained in the database relate (some more directly than others) to my initial PhD title: *Cybernetics of collaboration: towards an extra-subjective agency in collaborative art practice*.⁴⁷ The grammatical structure of the original title was kept in place, which provided a formal parameter for the words I could use.

⁴⁷ I omitted generating alternatives for 'in collaborative art practice', as I was unsure whether this would remain the focus of my research.

Word 1 Plural noun & metaphor	Word 2 Preposition	Word 3 Verb	Word 4 Preposition or present participle	Word 5 Indefinite article	Word 6 Adjective	Word 7 Adjective	Word 8 Noun
Ecologies	of	Collaboration	Towards	a/an	Automated	Extrasubjective	Agency
Autopoietics			In search of	a/an	Autonomous	Practice-based	Authorship
Cybernetics			Finding	a/an	Systems-based	Integrated	Art practice
Logics					Communicative	Knowing	Methodology
Assemblages					Embodied	Autopoietic	Amateurism
					Assimilated	Authorial	Epistemology
					Emerging	Swarming	Entity
					Entropic	Appropriated	Art criticism
					Intersubjective	Proliferating	Mind
					Amateur	Generative	Thought experiment
					Thinking	Iterative	Wiki
					Random	Situated	Language
					Responsive	Extrapersonal	Project
					Recursive	Mental	Group exhibition
					Self-creating	Self-organized	Monthly publication
					Self-generating	Associative	Installation art
					Stochastic	Distanced	Computer art
					Unified	Cybernetic	Sculpture
					Participatory	System-based	Social network
					Fragmented	Networked	Web assemblage

Fig. 2.5 Database of terms for *Topic Generator*.

The image shows a Google Scholar search results page. The search query is "Logics of collaboration: towards an entropic swarming art criticism". The page displays several search results, each with a title, author, and a brief abstract. The results are filtered by "Articles" and "Case law". The left sidebar contains various filters and options, including "Any time", "Sort by relevance", "Sort by date", "include patents", "include citations", and "Create alert".

Articles

Designing an Organisation to Activate Cross-sectoral Mass Collaboration Towards Sustainability [PDF] diva-portal.org
 A Campbell, J Hurry, M Zidov - 2011 - diva-portal.org
 ... Team of SU:LDN for their permission to use SU:LDN as our case study, for their precious time, for allowing us to **collaborate** so closely ... The **collaborative** reference work Wikipedia is a great example of **swarm** intelligence. ... 29 3.3.1 Mass **Collaboration**
 Related articles Cite Save

Dynamic and thermodynamic tropes of the subject in Freud and in Deleuze and Guattari
 ME Rosenberg - Postmodern Culture, 1993 - muse.jhu.edu
 ... In Deleuze and Guattari's **collaborative** volumes, Anti-Oedipus and A Thousand Plateaus, lies a Nietzschean synthesis of the Marxist theory ... This genealogy, in turn, helps to locate in Deleuze's corpus, as well as in his **collaboration**, a continuous commitment ... The **Logic** of Sense. ...
 Cited by 19 Related articles All 2 versions Cite Save

"Eden or Ebb of the Sea": Susan Howe's Word Squares and Postlinear Poetics
 B Reed - Postmodern Culture, 2004 - muse.jhu.edu
 ... the contrary, "difference is just as important as similarity, antagonism as crucial as **collaboration**, dissonance and ... I think you go one way or another—**towards** drawing or **towards** having words sound ... Following this **logic**, the "spars" and "echoes" in the word squares are like "veils" ...
 Cited by 13 Related articles All 3 versions Cite Save

From performing resistance to performing autonomy and back again: Alex Bag meets Ann Hirsch
 M Walsh - The Moving Image Review & Art Journal (MIRA), 2015 - ingentaconnect.com
 ... opinions about and stuff", her flat monologue circling back on itself in ever **entropic** loops from ... re-presenting such moments, Bag went on to create her own TV show, in **collaboration** with **artist** ... to live in a post-critical world in which **art** no longer evidences 'the **logic**-of-disjuncture ...
 Related articles All 2 versions Cite Save

Art: Visual Perception and the Aesthetic
 A Styhre - Perception and Organization, 2008 - Springer
 ... human life and for serving an intermediary role in-between moral and **logic**, reason and ... of artists, and especially composers, choreographers and film directors rely on the **collaboration** of other ...
 All fields are thus fields of forces; of coalitions and **collaborations**; of antagonism and ...
 Cite Save

AESTHETIC REFLEXIVENESS
 K Vanbellegem - ingentaconnect.com
 ... is why I do not fully agree with the Concepts on the Move purpose of shifting **towards** the development of ... the artistic concepts of the late 1960s and 1970s, for example, Robert Smithson's notion of **entropic** landscapes. ... Language is inevitably tied up with concepts and with **logic**. ...
 Cite Save

[book] The one and the many: Contemporary collaborative art in a global context
 GH Kester - 2011 - books.google.com
 ... Perhaps most visible are what we might term "**artist**-to-**artist**" **collaborations** of the ... I'm interested in the differential articulation of participation and **collaboration** across a ... Rather, "**collaborative**" and "textual" approaches can more accurately be described as predispositions within ...
 Cited by 198 Related articles All 2 versions Cite Save More

Fig. 2.6 Google Scholar search engine results from *Topic Generator*.

There are 174,420 possible titles, which although tiny from a computer-processing point of view, was far more than I would have been capable of producing manually. This created a distancing effect between my agency, enacted through the intentional act of 'inputting' to the system, and the outputs of the system, which were outside my intentionality and too large in quantity for me to read. The sense of setting something 'bigger than myself' in motion is an aspect that runs through the rest of the works in this PhD. The distance between my intentionality and the system's outputs was always experienced in relation to my knowledge of its structure, so I saw my agency as being enacted as a matter of degree, rather than being eclipsed by the system. I had a higher degree of agency at the input stage, and a lower degree at the output stage.

The input/output relation thus engendered a tension between my agency, or intentionality in structuring the work, and my lack of agency, or un-intentionality over what the work 'produced'. Another way of thinking about these degrees of agency is to distinguish between 'intentionality' and 'control'. Enacting my intentionality in relation to the *Topic Generator* is not the same as *controlling* the *Topic Generator*. Not being able

to control its output was a fundamental part of my intentionality, which involved being open to a degree of unpredictability. This openness reflects the fact that I wanted to embrace the possibilities that would be generated through practice-based research. Tolerating a degree of unpredictability and uncertainty, and being willing to pursue unexpected paths was a conscious part of my approach.

As well as the titles themselves, the Google Scholar search engine results they generate created an additional layer of complexity and a greater level of sprawl in the work. Clicking on a title disrupts the stream of titles viewed on the webpage, and extends the works' location beyond my website into the broader sphere of the web. The search results heightened the satirical undertone of the work, implying ironically that an intellectually involved part of the research process (the literature review) could be automated. Despite this intended irony, however, there were instances when the search results *did* seem relevant.

For example, a search for the generated title 'Ecologies of collaboration: in search of an entropic distanced project' returned Matthew Fuller's 2005 book *Media Ecologies: Materialist Energies in Art and Technoculture*, which was later included in the Literature Review.

The status of the *Topic Generator* was thus ambiguous. I was not certain whether it should be understood as a form of representation that satirized the PhD process by implying that it could be automated, or as a genuinely useful 'tool' for generating other ways of thinking about my research and exploring related literature. For me, the usefulness of *Topic Generator* (as a tool) came as much from populating the database with relevant terms as from reading the generated titles, since the former involved considering alternative words and metaphors that might be relevant for my research. This again reflects the importance of the higher degree of agency at the input stage.

The structure and inputs of the system determine the outputs, no matter how unpredictable they may seem. The outputs thus 'reflect' the inputs, albeit in unpredictable configurations.

One way of emphasizing the tool-like quality of the *Topic Generator* would have been to make a version that would allow other PhD students to enter their own set of synonyms and generate their own alternative PhD titles. I did not pursue this line of enquiry, as I did not want to make an unambiguously functional work, but it did catalyse the idea of exploring my own authorial agency by allowing others to interact with my work – a strand of practice that was explored most thoroughly in *Flickr Nude or Noodle Descending a Staircase* (see Practice 3). Rather than seeing the *Topic Generator* as either an autonomous form of representation or as a tool that has some potentially useful functional qualities, it is better understood as an experiment that encompasses *both* these aspects.

As a relatively conceptually oriented, process-driven work, one of the most challenging aspects of making *Topic Generator* was the question of how it should look. My focus was on the computational generation of the titles, and I did not intend any other visual elements of the work to be automated. This meant that decisions about its visual appearance were part of my intentional establishment of the whole 'system'. This created a quandary over whether to adopt a systematic approach to the work's aesthetic dimensions, or whether the use of imagery

and the assertion of (very basic) design and typographic decisions was an opportunity to bring a more affective dimension to the work through a more direct enactment of my intentionality. After much deliberation, I concluded that an attempt to systematize the aesthetic dimensions of the work would be as much an assertion of my intentionality as an attempt to introduce personally selected aesthetic elements. I settled on a middle ground by using an understated repeat pattern, taken from an online wallpaper website, as a backdrop for the text, which is displayed in two standard fonts, Arial and Courier. The 'problem' of the aesthetic dimensions of my generative works, and the relative ease with which I was able to automate text in comparison to images, came up in *39,063,100,000,000,000,000,000,000 Flies, After William Blake* (discussed below) and *Infinite Violets* (discussed in Practice 2).

Topic Generator demonstrates that there were a number of generative elements at work in the research, all of which could produce unpredictable lines of enquiry: I generated a system, which generates titles, which generate literature reviews. However, the intentionally enacted research itself is also generative, in that it changes over time and thus 'generates' new titles that reflect what has been discovered. The fact that

my actual PhD title was subject to institutional constraints meant that I was never entirely in 'control' of it, although the decisions about what it would be were entirely intentional. The generative nature of the research process meant that the final title had to reflect what had taken place, and what the PhD had become – so the research itself 'generated' the title, rather than the title generating the research.

Overall, *Topic Generator* allowed me to reflect on intentionality as an aspect of artistic agency, and to consider the extent to which I was comfortable allowing unintentional elements to determine the direction of my practice and research. My intentionality was enacted at the level of the artwork-as-system rather than at the level of its outputs, so although not responsible for generating the particular combinations of titles, I was responsible for generating the work as a whole. Thus creating the conditions for un-intentionality was an enactment of my agency.

As with the Dadaist strategies and cut-up techniques discussed in the Practice Review, the computer generation in *Topic Generator* was a way of loosening my grip on the origination of meaning *within* the work, but not something that completely eclipsed my agency, intentionality and authorship of the work.

Fig. 2.7 *39,063,100,000,000,000,000,000,000,000,000 Flies, After William Blake*, 2011, screenshot 1, p. 95.

Little Fly - William Blake

Little Fly,
Thy summer's play
My thoughtless hand
Has brush'd away.

Am not I
A fly like thee?
Or art not thou
A man like me?

For I dance
And drink & sing:
Till some blind hand
Shall brush my wing.

If thought is life
And strength & breath
And the want
Of thought is death;

Then am I
A happy fly,
If I live,
Or if I die.

Little Fly - Variation

Undersized Fly,
Thy midsummer's play
My indifferent fist
Has stroke'd absent.

Am not I
A fly uniform with thee?
Or art not thou
A grandfather like me?

For I foot it
And thirst & whistle:
Till some hasty fist
Shall stroke my airfoil.

If ideation is oomph
And brawn & inhalation
And the want
Of ideation is extinction;

Then am I
A light fly,
If I make it,
Or if I drop off.

Generate a Variant

Fly Count = 1

Fig. 2.8 *39,063,100,000,000,000,000,000,000,000,000 Flies, After William Blake*, 2011, screenshot 2, p. 97.

Little Fly - William Blake

Little Fly,
Thy summer's play
My thoughtless hand
Has brush'd away.

Am not I
A fly like thee?
Or art not thou
A man like me?

For I dance
And drink & sing:
Till some blind hand
Shall brush my wing.

If thought is life
And strength & breath
And the want
Of thought is death;

Then am I
A happy fly,
If I live,
Or if I die.

Little Fly - Variation

Pocket Fly,
Thy midsummer's play
My unceremonious paw
Has smooth'd apart.

Am not I
A fly not far from thee?
Or art not thou
A sir like me?

For I foot it
And nip & duet:
Till some groping paw
Shall smooth my pinion.

If cerebation is sparkle
And body & gulp
And the want
Of cerebation is loss;

Then am I
A laughing fly,
If I endure,
Or if I relinquish life.

Generate a Variant

Fly Count = 69

39,063,100,000,000,000,000,000,000

Flies, After William Blake

39,063,100,000,000,000,000,000,000 *Flies, After William Blake*

applied a similar algorithmic process to William Blake's poem *The Fly*, which I had enjoyed reading over a number of years, finding its meaning intriguing and moving. I selected a poem because I wanted a contrast to the functional, academic quality of *Topic Generator*. The formal qualities of *The Fly*, such as its economy of language, rhyming couplets and small number of verses, lent themselves to the generative process. I sought something short and simple enough for differences between the original and the permutations to be recognized and compared. Choosing the text to be permuted was an aspect of the work where I clearly enacted my intentionality.

The algorithm generates variations of the original poem by substituting the original words with synonyms manually collated in a database. The number in the work's title refers to the number of possible permutations of the poem. As with *Topic Generator*, the vast quantity of what is generated, and the impossibility of encountering everything that the system

produces, created a distancing effect between my intentionality and the system's output. This points to the 'surplus' aspect of extra-subjective authorship, which can involve producing and apprehending a surplus of material that is *both* a result of the artist's intentionality, *and* a result of something beyond it. The generative works discussed in this chapter produced an excess of material out of a bounded starting point (a text), but later works, such as *Flickr Nude or Noodle Descending a Staircase and Selfie Portrait*, were more focused on collating and re-presenting a cultural excess of material created by other people (see Practice 3 and Practice 4).

Viewers can click a 'generate variant' button to generate a new permutation of Blake's original poem. The inclusion of this button was a first step towards inviting viewers to be literally involved in the production of my work, although their degree of authorial intentionality here is extremely limited.

As with the *Topic Generator*, I considered developing a version in which viewers could input their own source text, but concluded that I was trying to achieve something different from existing online text generators that enable this.

The N+7 machine, for example, is an online text generator based on an Oulipo constraint in which every noun in a text is replaced with the noun seven entries after it in a dictionary.⁴⁸ The viewer can enter any text, and the N+7 machine returns a generated version in a simple text-only format. Like the text generators described by Losh (2011), the N+7 machine creates a particular rhetorical effect and critiques the social construction of language. In contrast, I saw *39,063,100,000,000,000,000,000,000,000 Flies, After William Blake* as an artwork through which I was addressing my particular research questions. In relation to *Topic Generator*, this work is less 'tool-like' and more autonomous as a form of representation.

As with *Topic Generator*, deciding on the aesthetic qualities of the work was a challenging task for which I was solely responsible. I wanted to include a visual element without being simplistically illustrative of the text (for example by using an image of a fly), but found it difficult to arrive at a rationale for this. As before, I took an abstract geometric image from a

⁴⁸ I submitted my research proposal to the N+7 machine under whose logic my 'creative strategies of collaboration' become 'creative strawberries of collapse', and the 'ethical dimensions of the research' become the 'ethical dimples of the resentment'.

website that provided free wallpaper and computer-generated patterns, and used it as a 'background' for the text. This was a way to bring the visual language of the web into the work whilst grappling with my frustrations over the apparent arbitrariness of choosing an image to 'go' with the text. The decision seemed so arbitrary I felt I might as well use wallpaper from the web. With this said, the choice of the wallpaper was not arbitrary, and as it is so visually dominant, to call it 'wallpaper' seems incongruous. The fractal design chimed with the way the work creates (effectively) infinite permutations, and the highly saturated colour palette emphasized the expressive qualities of the poems. By treating the image as a background, however, I was perhaps attempting to highlight the text as the thing I wanted to be most actively 'read'.

Given the difficulty of choosing an image, I again wondered if I should adopt a systematic approach to the work's aesthetic dimensions in order to emphasize its conceptual, process-driven orientation. Could I automate the selection of images in the same way as I was automating the permutation of text? However, it is not possible to apply the algorithm that permutes the texts to images, because images cannot be broken into 'naturally occurring' component parts in the way

that text can. For example, a sentence can be broken into component parts (words), which can be substituted by correlate component parts (synonyms). Although digital images could of course be broken down into pixels, these pixels do not have the equivalent of synonyms. Text therefore lends itself to the algorithm used in this work, but images do not – or to put it another way, the algorithm is designed for text, not image.

Fig. 2.9 *Infinite Puffs*, 2012, screenshot 1, p. 103.

Fig. 3.0 *Infinite Puffs*, 2012, screenshot 2, p. 105.

Infinite Puffs

Infinite Puffs was a third attempt at using an algorithmic process of permutation. Having used my PhD title and a poem, I wanted to experiment with using song lyrics as the source text, and introduce an audio element to the work. The use of a song was another way of considering the extent to which I wanted to literally involve the viewer in the work – in this case by inviting them (notionally) to sing along. Unlike in the previous work, I was led by the format I wanted to experiment with, rather than a particular song. As with choosing images, choosing a song was challenging. On one hand, it seemed like a relatively arbitrary decision, since I just wanted to continue experimenting with the algorithmic process but was not aiming to refract the meaning of any particular song. On the other hand, it seemed essential, since the choice of song would determine the work's expressive properties. I settled on *Puff the Magic Dragon*, which has a charm and lightness of touch I felt would resonate with my own playful approach. I deemed its melody and lyrics to be recognizable enough for the permutations to register as humorous. For me, one of the most compelling aspects of using an algorithm to generate text is

that it often results in humorous, surreal or unexpected phrases.

When *Infinite Puffs* loads in a browser, a synthetic backing track plays and the permuted lyrics appear as if they are being displayed on a karaoke machine.⁴⁹ I investigated the possibility of enabling people to record themselves singing along via a webcam, but decided not to pursue this line of enquiry, as the focus was still on my intentionality in relation to computational generativity rather than viewer participation at this stage. The potential for viewer participation in *Infinite Puffs* pre-empted the more interactive elements of *Flickr Nude or Noodle Descending a Staircase*, as discussed in Practice 3.

Summary

The computational generation of material that was 'beyond' me, both in its quantity and unpredictability, created a

⁴⁹ Whilst making *Infinite Puffs* I asked my dad to create a backing track for the work, since he is a talented guitar player. He agreed to do this and after several days, sent me the audio file. I listened to the file and was moved to tears, as it sounded beautiful and seemed like a gift from him. When I rang him to tell him how moved I had been, he said, 'Thanks, but it was a synthetic track generated in Garageband!' This perceptual slippage was a reminder of how technological processes are always subject to human interpretations and projections.

distancing effect between my intentional inputs to and the unintentional outputs of the systems I had inaugurated. These input/output relations highlighted the co-presence of intentionality in determining the structure of the works, and my lack of intentionality in determining what these structures generated. This points to the 'surplus' aspect of extra-subjective authorship, which can involve the generation of artistic outcomes that exceed the artist's intentions. Although computer generation introduced unpredictable elements to these works, it did not eclipse my authorial agency, and the works were clearly not produced exclusively 'outside' me. I understood my authorial agency to be fully intact and saw myself as accountable for the works if, for example, they breached copyright, or even if someone simply wanted to have a conversation about them, since I would be identified as their creator. Whilst the computer programs have a productive capacity, they do not have any subjective capacity or effective intentionality. In light of this, the 'outside' or 'beyond' aspects of extra-subjectivity associated with computer automation became less important than the 'surplus' aspects.

The generative elements of these works was fundamental to creating a sense of playfulness and humour.

INTRODUCTION
METHODOLOGY
LITERATURE REVIEW
PRACTICE REVIEW
PRACTICE 1
PRACTICE 2
PRACTICE 3
PRACTICE 4
THE COPYRIGHT EPISODE
CONCLUSIONS
BIBLIOGRAPHY
APPENDICES

Fig. 3.1 *1000 Truly Original Ideas*, 2012, screenshot, p. 111.

:))))(((((: // Archive / Ask me anything / Theme

Hit upon an honestly originative notion. It is the by oneself way I will forever celebrate the author. It is the by oneself way I will till the cows come home have influence.

- A permutation of the following quote from 'A Beautiful Mind' starring Russell Crowe:

'Find a truly original idea. It is the only way I will ever distinguish myself. It is the only way I will ever matter'.

Discover a loyally fertile end. It is the one and only way I will on any occasion honor me personally. It is the sole way I will regularly be important.

- A permutation of the following quote from 'A Beautiful Mind' starring Russell Crowe:

'Find a truly original idea. It is the only way I will ever distinguish myself. It is the only way I will ever matter'.

Happen upon a with all one's heart resourceful conception. It is the apart way I will perpetually immortalize the speaker. It is the lone way I will till the cows come home be of value.

- A permutation of the following quote from 'A Beautiful Mind' starring Russell Crowe:

'Find a truly original idea. It is the only way I will ever distinguish myself. It is the only way I will ever matter'.

Identify a definitely sensitive

Encounter a staunchly resourceful suspicion. It is the unequaled way I will incessantly pay tribute to the speaker. It is the peerless way I will anytime count.

- A permutation of the following quote from 'A Beautiful Mind' starring Russell Crowe:

'Find a truly original idea. It is the only way I will ever distinguish myself. It is the only way I will ever matter'.

Descry a with devotion innovative view. It is the onliest way I will anytime acknowledge me personally. It is the isolated way I will till the cows come home involve.

- A permutation of the following quote from 'A Beautiful Mind' starring Russell Crowe:

'Find a truly original idea. It is the only way I will ever distinguish myself. It is the only way I will ever matter'.

Uncover a reliably unprecedented objective. It is the alone way I will incessantly dignify me personally. It is the unaccompanied way I will at all express.

- A permutation of the following quote from 'A Beautiful Mind' starring Russell Crowe:

'Find a truly original idea. It is the only way I will ever distinguish myself. It is the only way I will ever matter'.

Expose a veraciously resourceful flash. It is the by oneself way I will continually dignify me

Recover a with all one's heart ready suspicion. It is the solitary way I will continually celebrate the author. It is the unequaled way I will consistently have influence

- A permutation of the following quote from 'A Beautiful Mind' starring Russell Crowe:

'Find a truly original idea. It is the only way I will ever distinguish myself. It is the only way I will ever matter'.

Locate an honorably inspiring brainstorm. It is the matchless way I will eternally dignify the speaker. It is the peerless way I will usually value.

- A permutation of the following quote from 'A Beautiful Mind' starring Russell Crowe:

'Find a truly original idea. It is the only way I will ever distinguish myself. It is the only way I will ever matter'.

Uncover a reliably unprecedented objective. It is the alone way I will incessantly dignify me personally. It is the unaccompanied way I will at all express.

- A permutation of the following quote from 'A Beautiful Mind' starring Russell Crowe:

'Find a truly original idea. It is the only way I will ever distinguish myself. It is the only way I will ever matter'.

Spot a positively demiurgic import. It is the exclusive way I

Come across a sincerely innovational suggestion. It is the unrivaled way I will on any occasion celebrate the speaker. It is the lone way I will on any occasion count.

- A permutation of the following quote from 'A Beautiful Mind' starring Russell Crowe:

'Find a truly original idea. It is the only way I will ever distinguish myself. It is the only way I will ever matter'.

Corral an in reality ingenious form. It is the single way I will consistently pay tribute to me personally. It is the alone way I will in perpetuum count.

- A permutation of the following quote from 'A Beautiful Mind' starring Russell Crowe:

'Find a truly original idea. It is the only way I will ever distinguish myself. It is the only way I will ever matter'.

Expose a veraciously resourceful flash. It is the by oneself way I will continually dignify me personally. It is the one shot way I will unceasingly mean something.

- A permutation of the following quote from 'A Beautiful Mind' starring Russell Crowe:

'Find a truly original idea. It is the only way I will ever distinguish myself. It is the only way I will ever matter'.

Come upon an in fact sensitive guess. It is the alone way I will

Transitioning towards the web

Whilst making the works in Practice 1, I undertook a concurrent practice and literature review, which allowed me to reflect on the works themselves and the contexts in which they might be best understood. Through the making, reflection and theoretical contextualization, it became evident that my questions of artistic authorship and agency needed to be situated not in relation to offline computational processes or cybernetic systems, but to the techno-social context of the web. This chapter discusses two artworks that represent a transition towards the web as a new location and medium for my practice.

1000 Truly Original Ideas

1000 Truly Original Ideas incorporates a computer-generated text work into my existing Tumblr blog, otheragents.tumblr.com, which works like a sketchbook. It is a visual research testing ground where I post my own digital images and reblog posts that I find visually interesting or resonant with my practice. I chose to use

otheragents.tumblr.com rather than setting up a new dedicated Tumblr for the work, as I initially saw *1000 Truly Original Ideas* as a methodological experiment rather than an autonomous artwork. Later I came to see it as a work in its own right, and because it is hard to 'see' in amongst all my other posts, I created a filtered view of it, which can be accessed from bit.ly/1KOIDEAS. The work is potentially ongoing, but the majority of posts were made between October 2011 and October 2013.

1000 Truly Original Ideas permutes a quote from the film *A Beautiful Mind*: 'Find a truly original idea. It is the only way I will ever distinguish myself. It is the only way I will ever matter' (*A Beautiful Mind*, 2001). This quote was pertinent because it hinges on an essentialist vision of originality as something 'discoverable'. By permuting the quote, I was playfully critiquing this notion and invoking post-structuralist theories of authorship that challenge the view of the author as 'the creative originator of a text whose intentions constitute a work's authentic meanings and significance' (Barker, 2004: 10).

As with the works described in Practice 1, I created a database of synonyms for each word in the quote and algorithmically generated a large set of permutations.

For practicality, I chose to limit the work to the first 1000 permutations, which I intended to post to my Tumblr.⁵⁰ I considered automating the posting process as a way of extending the generative aspect of the work, but discovered that this would be a breach of Tumblr's community guidelines. Tumblr states that users must not 'register accounts or post content automatically, systematically, or programmatically', and sees automation as an activity that can 'jeopardize our users, threaten our infrastructure, and damage our community' (Tumblr, 2015: n.p). This demonstrates that by placing the practice of computer-generation in the context of Tumblr, it is bounded by the platform's code of practice, and subject to new constraints. The closest I could get to automatically posting the quotes was to queue them and set my account to upload one post per day. This highlighted the need to undertake continuing manual work to keep a Tumblr populated with

⁵⁰ There are 1,638,095,000,000 possible permutations. I did not post all 1000 posts, as I did not feel it was necessary in order to reflect meaningfully on the work.

content. The demand for content production is the subject of Brad Troemel's essay *Athletic Aesthetics*, in which he discusses the pressure on artists to continually produce content that can be shared on social media. He suggests that the web has spawned a new kind of cultural producer, the 'aesthlete', who 'trumps craft and contemplative brooding with immediacy and rapid production' (Troemel, 2013: n.p).

Further exploring the possibilities of automation, I set my Tumblr account to automatically post each quote to my Facebook timeline, so that they appeared in amongst my personally created photos and posts. This offered another way to bring a form of computational (Latourian) agency into my practice, this time in the techno-social context of the web. A concerned friend got in touch to inform me that my Facebook account had been hacked. It was confusing for them to see this series of automated texts appear on my Facebook timeline in amongst other content that was obviously created by me personally. In keeping with my rejection of non-human agency as a focus for my research, I did not pursue this as a line of enquiry, but the confusion these posts caused signalled the creative potential of using automation to adopt an ambiguous or complicated artistic identity.

In this research, it was important that I remained accountable for the artwork 'as me', but experimenting with online identity offers a fruitful area for future research, as discussed in the conclusion.

I did not see my Tumblr as a discrete artwork in which to proclaim a particular authorial stance through 'curating' or 'indexing' digital artefacts, as is discussed in the Practice Review. Rather, it is an experimental space where I can collect materials to inform my practice, or test out artworks like the one discussed here. However, juxtaposing other people's posts with my own prompted me to consider the relationship between the overall Tumblr, which I author, and the images that make it up, which are authored by others. Once other people's images are reblogged and appear in my Tumblr, they become part of something I have authored. This does not mean that I want to claim authorship of them, but that on Tumblr, my authorial agency is hybridized with the authorial agency of other people.⁵¹ Questions of the ownership of

images became more explicit through the production of *Selfie Portrait* (see Practice 4 and Chapter 4).

Using Tumblr prompted me to evaluate whether I wanted to measure the success of my work by its engagement with and popularity amongst Tumblr users, expressed through likes, comments or reblogs. The question remained speculative however, as I did not work on developing a following on Tumblr. This would have involved following, reblogging and producing content on a regular basis, which I did not want to invest time in at this stage of the research. The platform itself does not offer a meaningful community of practice or a readymade audience – the artist or cultural producer has to build this up by interacting with the community. Without the aspect of social interaction, the platform is just a tool.

I also questioned whether courting likes, comments and reblogs could be seen to encourage a form of cultural expression that compromises more critical and reflective responses. However, as noted in the Practice Review in relation to Joe Hamilton's *Hypergeography*, the popularity of a work on

understood as the author of the work (Valentine, 2013: n.p). Although this may be the case, Valentine's assertion relates to the point of reception rather than production, which is not the focus of this research.

⁵¹ Ben Valentine suggests that there is a de-emphasis on authorship in Tumblr, because much of the content is seen in the dashboard feed, which gives a real-time display of all the content being shared by all the Tumblrs you follow (Valentine, 2013: n.p). He suggests that it is difficult for artists to assert control over how their work is displayed in Tumblr, and that they may not be

Tumblr does not necessarily preclude it from receiving critical or reflective responses in other contexts. Furthermore, I would not want to suggest that a comment on Tumblr is necessarily uncritical or reflective.

After *1000 Truly Original Ideas* I did not use Tumblr to produce any more artworks, as I wanted the works to have a reflective distance from corporate social media. As Curt Cloninger asks,

Is using off-the-shelf corporate software to create a 'unique/personal' MySpace page a way of subverting the institutions of mass media production, or is it simply one more example of these institutions using the myth of 'originality' to assimilate and amass a demographic market of "unique" individuals? Artists who use these templates have to be particularly wily if they hope to keep from being assimilated and rendered 'tactically' impotent. (Cloninger, 2009: 3)

In the following works, content appropriated from social media platforms is displayed 'outside' them, such that they are less reliant on the economy of the platforms themselves.

Fig. 3.2 *Infinite Violets*, 2012, screenshot 1 (homepage), p. 117.

Infinite Violets

*Infinite Violets generates variations of the following verse from Shakespeare,
with images from the Flickr community:*

To guard a title that was rich before,
To gild refined gold, to paint the lily,
To throw a perfume on the violet,
To smooth the ice, or add another hue
Unto the rainbow, or with taper-light
To seek the beauteous eye of heaven to garnish,
Is wasteful and ridiculous excess.

King John (4.2.11-17)



[Visit Infinite Violets](#)

Fig. 3.3 *Infinite Violets*, 2012, screenshot 2, p. 119.

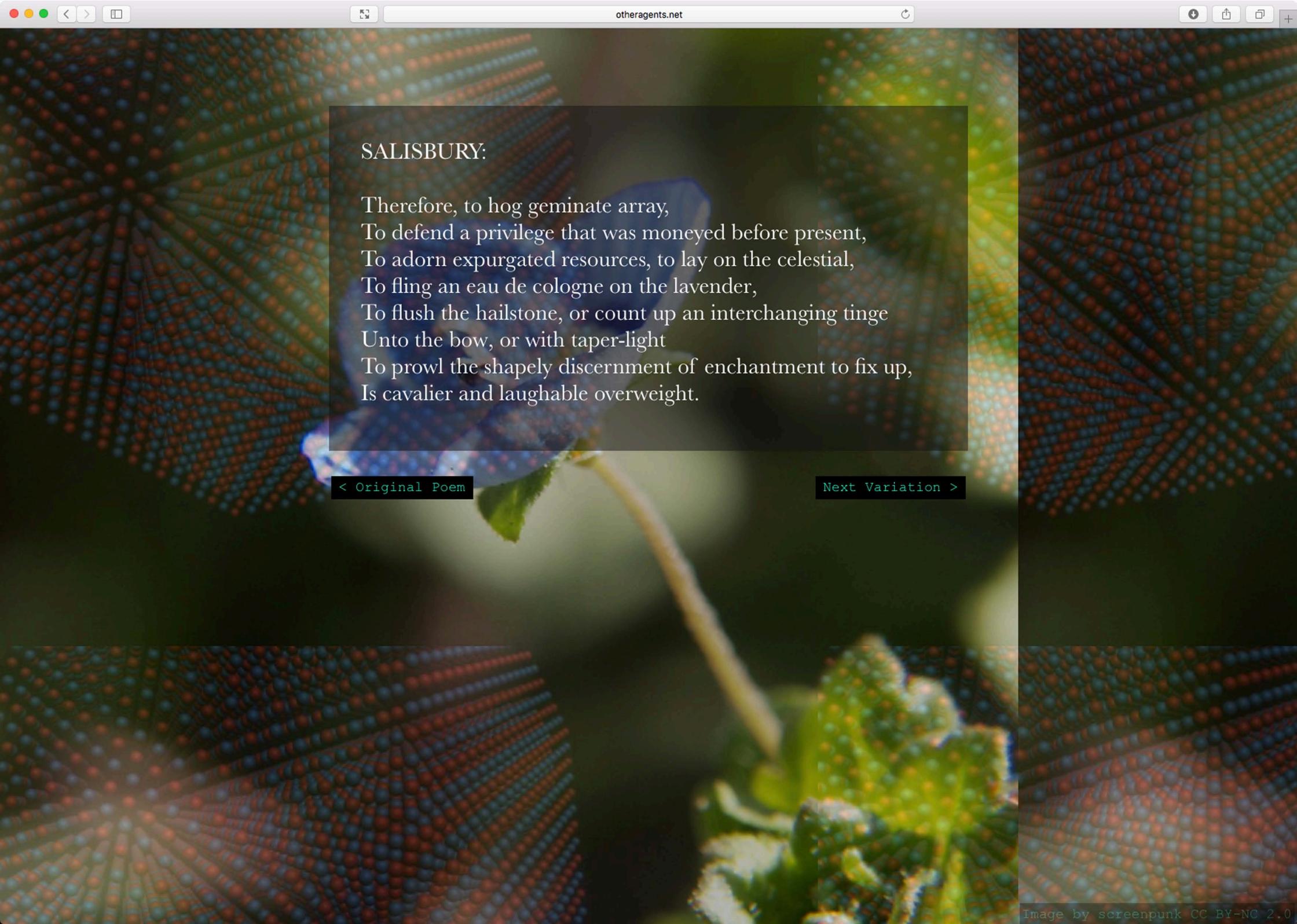
SALISBURY:

Therefore, to sit on twice pomposity,
To baby-sit a holding that was gilded former,
To wash washed interests, to place the rain,
To fling a cologne on the lilac,
To sand the dry ice, or total a makeshift aspect
Unto the variegation, or with taper-light
To dragnet the hot view of shangri-la to adorn,
Is incontinent and impossible fat.

[< Original Poem](#)

[Next Variation >](#)

Fig. 3.4 *Infinite Violets*, 2012, screenshot 3, p. 121.



SALISBURY:

Therefore, to hog geminate array,
To defend a privilege that was moneyed before present,
To adorn expurgated resources, to lay on the celestial,
To fling an eau de cologne on the lavender,
To flush the hailstone, or count up an interchanging tinge
Unto the bow, or with taper-light
To prowl the shapely discernment of enchantment to fix up,
Is cavalier and laughable overweight.

[< Original Poem](#)

[Next Variation >](#)

Infinite Violets

Infinite Violets was the final computer-generated text work.

Here, I incorporated user-generated images from Flickr as a different way to explore my authorship in relation to content created and shared by other people. I also wanted to integrate images more fully than I had done in the previous works. The use of images from Flickr added a layer of complexity in relation to my author position, prompting questions of copyright and how to attribute the images appropriated in the work.

The impetus for the work was an invitation to participate in an exhibition at the Blythe Gallery, London (*Throwing Perfume on Violets*, 2013).⁵² The premise of the exhibition was an exploration of notions of excess and embellishment, and its title was taken from a verse of Shakespeare's play *King John*:

Therefore, to be possess'd with double pomp,
To guard a title that was rich before,

⁵² Later, the work was also exhibited online as part of the My Shakespeare Festival (Royal Shakespeare Company, no date: n.p). This required me to 're-package' the work for this context, creating a still that could go on the website, and writing an explanatory text different to the one on the work's homepage.

To gild refined gold, to paint the lily,
To throw a perfume on the violet,
To smooth the ice, or add another hue
Unto the rainbow, or with taper-light
To seek the beauteous eye of heaven to garnish,
Is wasteful and ridiculous excess. (Shakespeare, 2015,
4.2: 9–16)

in response to the exhibition theme, I proposed to permute this verse using the same algorithmic process I had been working with. The conceit was that generating millions of versions of Shakespeare's poetry was a form of digital, hyper-textual embellishment.

This work allowed me to re-visit the 'problem' of the aesthetic dimensions of the computer-generated text works, as described in Practice 1. As well as a database of synonyms, I created a database of Flickr images. To find these, I took each synonym and searched for images tagged with that word, or containing it in the related text posted by the user.⁵³

As noted in Practice 1, texts can be broken into component parts (words), with naturally existing correlates (synonyms),

⁵³ Using the tags *and* accompanying text widened the scope of available images. If I had been taking a digital sociological approach, I may have limited the search to just tags, in order to infer something about the relationship between the images and users' practices of tagging.

which enable them to be permuted. Images cannot be permuted in the same way, since they do not have equivalent kinds of component parts or synonyms. Once selected, the images were not broken into component parts, but put in a sequence that matched the order of words in the permuted text. In other words, whenever a new textual variation of the verse was generated, the computer program generated a slideshow of 'corresponding' images (i.e. images tagged with the words in that permutation). Thus, with the images, permutation was only happening at the level of ordering, not at the level of the individual image itself. With the text, the permutations happened at the level of the text itself.

A high degree of authorial intentionality was required in the selection of the images, which reinforced my earlier observations that despite the inauguration of computational systems, my authorial agency was still fully intact. The use of systems is better understood as a way of structuring my artistic activity than of negating my intentionality. I did not take a process-driven approach to the selection of the images (for example by selecting the first image for every search term), because this would have compromised the aesthetic quality of the work. There was a subjective, aesthetic evaluation involved

in choosing the images, which was not the case with text. I looked for high-resolution images that I felt would have a strong visual impact. The selection of the images was part of setting up the structure of the work, which involved a high degree of intentional, subjective decision making on my part.

The use of Creative Commons licences

As I moved towards the web as a context and location for my practice, it became clear that questions of copyright, authorship and ownership were at stake when appropriating other people's cultural productions. As an artist and researcher, it was important to me to take a socially responsible approach to the use of other people's images, out of respect for the authors and a desire to behave ethically within online communities. This became an increasingly significant area of focus as the research progressed. Here, I only selected images that had been published under Creative Commons licences that permit people to modify, adapt, or build upon the images.

The Creative Commons is a nonprofit corporation, founded in 2001, which aims to 'build a layer of *reasonable* copyright on top of the extremes that now reign' (Lessig, 2004: 282, italics in original). Creative Commons offers a free set of licences, which anyone can apply to their content without the need of a lawyer. These licences make it 'simple for creators to express the freedom for others to take and build upon their work' (Lessig, 2004: 282). Lessig's description of Creative Commons licences expresses their ideological as well as practical underpinnings:

A Creative Commons license constitutes a grant of freedom to anyone who accesses the license, and more importantly, an expression of the ideal that the person associated with the license believes in something different than the 'All' or 'No' extremes. Content is marked with the CC mark, which does not mean that copyright is waived, but that certain freedoms are given. (Lessig, 2004: 282)

In *Infinite Violets*, whenever an image appears on screen, the name of the author and the licence they used appears as a hyperlink on the bottom right of the screen, which acts as a credit to the original author. At any point, the viewer can visit the original source of the images included in the work. *Infinite Violets* is licensed under the most restrictive Creative Commons licence applied to the images that comprise the work, which is

an Attribution-Non Commercial-ShareAlike licence. This licence 'lets others remix, tweak, and build upon your work non-commercially, as long as they credit you and license their new creations under the identical terms' (Creative Commons, no date: n.p). The use of Creative Commons-licensed images from Flickr limited the images that could be included, but enabled me to implement a relatively simple process for ensuring a fair and lawful use of content created by other people. Later works using content from other platforms that do not promote the use of Creative Commons licences generated more complex copyright issues, which are discussed in Practice 4 and Chapter 4.

How the work was displayed

The inclusion of *Infinite Violets* in a gallery exhibition prompted me to consider how the work might manifest differently in online and physical spaces. I was conflicted about whether to participate in *Throwing Perfume on Violets*, because exhibiting in a conventional gallery seemed at odds with the opportunity web-based art offered to circumvent conventional forms of dissemination. However, opting out on this basis seemed a

wasted opportunity, especially given that I had not come to any conclusions about the implications of exhibiting web-based artworks in physical spaces, so I decided to take part. Perhaps in an attempt to reach a compromise, I chose not to physically install the work in the gallery, but to provide small cards with a QR code so that viewers had to view the work either on mobile devices in the gallery or on other devices elsewhere (see Fig. 3.5). This was a way to be involved with the exhibition, but still point to the fact that the work was located 'outside' a gallery context. It was also intended to acknowledge the fact that a work displayed on the web would inevitably be seen in different contexts on different devices, which were beyond my control.



Fig. 3.5 Cards with QR code link to *Infinite Violets*, 2012.

The QR code approach was problematic because many of the gallery visitors did not have QR code readers downloaded on their mobile phones. At the private view, my *ad hoc* response to this was to physically walk around with a laptop, and personally show the work to individuals or small groups. This was an early indication that the experience of the artwork in a gallery is inherently different to the experience of the artwork online. In later works, I became more reconciled to the idea that web-based works can reasonably be exhibited in a range of contexts

and locations, which require different treatments and realization. This is discussed in more detail in the Practice Review, in relation to Joe Hamilton's work *Hypergeography*.

Summary

Computational generative processes are subject to new constraints when carried out online, as demonstrated by the fact that automating the posts in *1000 Truly Original Ideas* would have breached Tumblr's community guidelines. They also have different effects, as demonstrated by the confusion I caused by posting computer-generated texts on my Facebook timeline. I found that my authorial agency on Tumblr is hybridized with the authorial agency of other people, whose cultural productions are included in my Tumblr. Using Tumblr prompted me to question the value of likes, comments and reblogs as a form of audience attention. I found that whether or not this form of attention is desirable, it is not provided by the platform itself – the artist or cultural producer has to build an audience on the platform by posting content there *and* interacting with the community. In order to establish a reflective distance from corporate social media, I chose not to

use Tumblr or other platforms as a medium for displaying subsequent artworks. The use of Flickr in *Infinite Violets* added a layer of complexity in relation to my author position and the appropriation of other people's images. The use of Creative Commons licences provided a way to take a socially responsible approach to this. A high degree of authorial intentionality was required in the selection of images, which was not automated, as I wanted to retain control over the aesthetic quality of the work. The work thus used computation not just as an end in itself, but as a means of prompting intentional decisions about what it should include. An invitation to display the work in an exhibition revealed a personal conflict over whether the gallery was an appropriate context for the work. My use of a QR code that invited people to view the work on a mobile device was only partially successful, as many people did not have QR code readers on their phones. This demonstrated that web-based artworks are experienced differently depending on where and on what device they are displayed and viewed.

INTRODUCTION
METHODOLOGY
LITERATURE REVIEW
PRACTICE REVIEW
PRACTICE 1
PRACTICE 2
PRACTICE 3
PRACTICE 4
THE COPYRIGHT EPISODE
CONCLUSIONS
BIBLIOGRAPHY
APPENDICES

Fig. 3.6 *Flickr Nude or Noodle Descending a Staircase*, 2013 (nude version), screenshot, p. 131.

keyword: nude



Fig. 3.7 *Flickr Nude or Noodle Descending a Staircase*, 2013 (noodle version), screenshot, p. 133.

keyword: noodle



Flickr Nude or Noodle Descending a Staircase

This work represents a significant turning point in my practice, as it was the first piece that I consider to be 'natively digital' in DMI terms. It deploys an automated technique of data collection to access images through the Flickr API. A number of people, with varying degrees of authorial intentionality, are involved in the aesthetic production of *Flickr Nude or Noodle Descending a Staircase*: Arthur Webb, who programmed the work, viewers who intentionally interact with or participate in it and Flickr users whose images are included without their knowledge. The work is distinct amongst the other submitted works, in that it offers the 'viewer' the opportunity to contribute.

Genealogy part 1: laptop performance

In the early stages of my research I spent time experimenting with the everyday features of my computer and the web. I played with the aesthetic qualities of browser windows, tabs

and images found online, as well as with basic applications available on my laptop. This was a way of familiarizing myself with the idea of my computer and the web as materials for my practice. Amongst these initial experiments was a short video, made with iShowU (Apple's basic screen capturing application) to record myself 'performing' with 70 open browser windows on my laptop (see Fig. 3.8). I had been experimenting with arranging large numbers of windows on my computer, and found a diagonally descending configuration of windows formally pleasing. The appearance of the windows brought Marcel Duchamp's 1912 painting *Nude Descending a Staircase* to mind, so I decided to use images of it as the content of the browser windows. I searched Google for 'Nude Descending a Staircase', and opened up a new browser window for each of the first 70 results that were returned. I arranged each new window on top of the last, lining them up as precisely as possible. The 'performance' began by starting iShowU and then closing each browser window in sequence, starting at the bottom right of the screen and moving up towards the top left. The performance was recorded in one take in real time, which took several attempts.

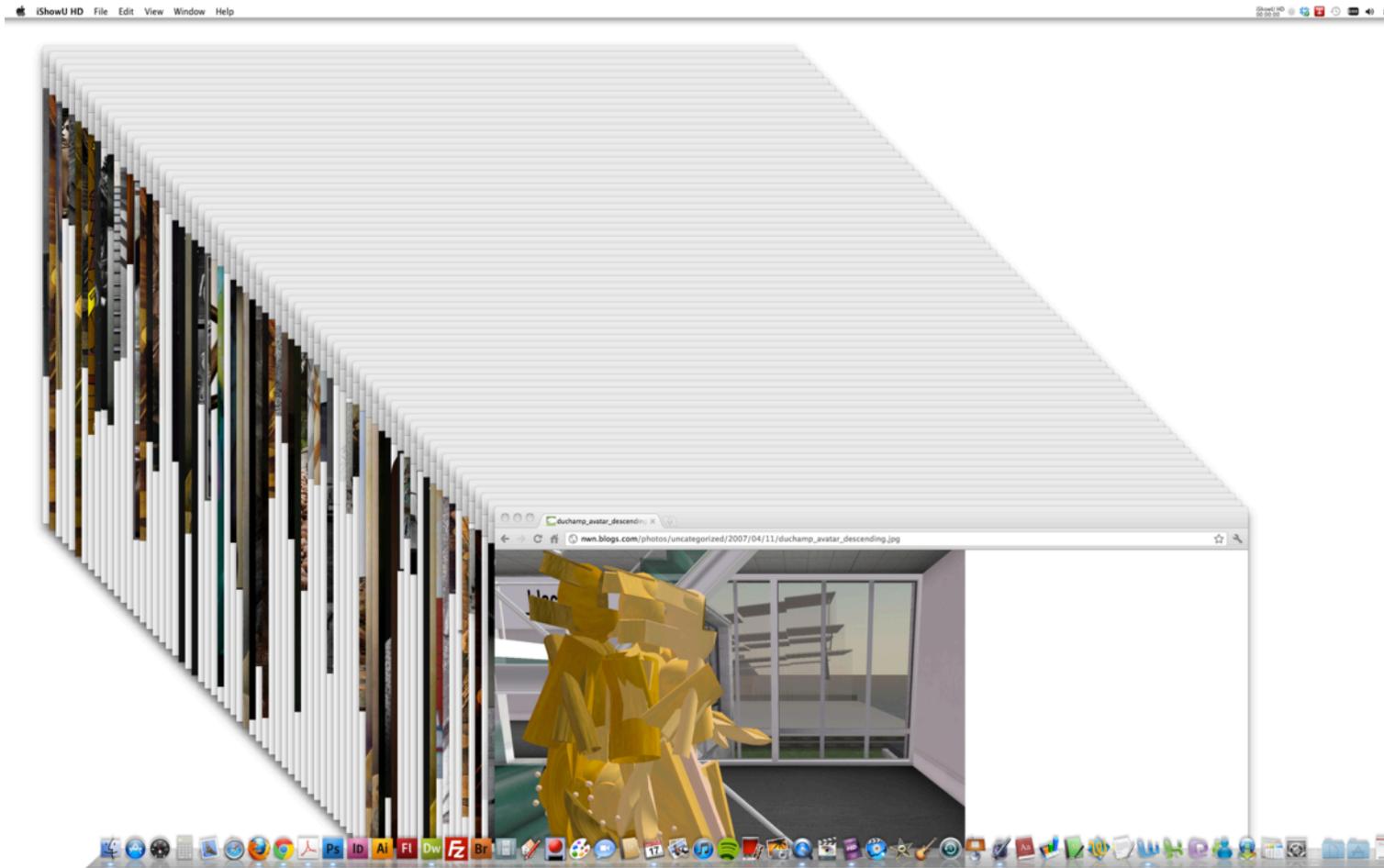


Fig. 3.8 Search results for 'Nude descending a staircase' in multiple browser windows, screenshot.

I then reversed the video so it appeared that the windows were descending across the screen, echoing the composition of Duchamp's painting. Although I was pleased to have created a digital version of Duchamp's work, I was frustrated with the apparent discord between the content of the work and the medium in which it was realized, i.e. video. I felt that making a web-based version would resolve this by bringing the form and content of the work closer together. It was not until after I had attended the DMI Summer School, however, that I found a way of realizing a web-based version of the work (see the Methodology chapter) for a discussion of digital methods).

Genealogy part 2: web version

Having attended the DMI summer school and learned about the automatic collection of data through APIs, I was able to re-imagine this work for the web. I began to conceive of 'nude' as a search term, and 'descending a staircase' as a format in which the results of this search could be displayed. The web-based version therefore needed an application that could obtain images tagged with 'nude' and display them in a

browser. I decided to work with Flickr again, as it has a publicly-available API, and was a good source of images in previous work.⁵⁴

The application uses a mixture of HTML,⁵⁵ CSS,⁵⁶ JavaScript,⁵⁷ JQuery⁵⁸ and PHP⁵⁹ to search Flickr for images tagged with 'nude' and display them in a descending staircase formation across the browser window. Once the viewer has entered the main page, it retrieves the keyword 'nude' and passes this on to a PHP page that in turn makes a call to the Flickr API to get a set of pictures associated with the keyword. The pictures are received in reverse chronological order of posting, i.e. the most recent image tagged with the keyword is displayed first.

⁵⁴ I considered using Instagram, but felt that the aesthetic qualities of Instagram photographs such as the square format, frames and faux vintage filters would dominate the work too much.

⁵⁵ HTML stands for hypertext mark up language. It is 'the Web's core language for creating documents and applications for everyone to use, anywhere' (W3C, 2016: n.p).

⁵⁶ 'CSS is a stylesheet language that describes the presentation of an HTML (or XML) document' (W3Schools, 2016a: n.p).

⁵⁷ 'JavaScript is the programming language of HTML and the Web' (W3Schools, 2016c: n.p).

⁵⁸ 'jQuery is a JavaScript Library' (W3Schools, 2016d: n.p).

⁵⁹ 'PHP is a server scripting language, and a powerful tool for making dynamic and interactive Web pages' (W3Schools, 2016e: n.p).

When one staircase of 15 pictures has been displayed the page again calls PHP, which in turn calls Flickr for the next set of 15. These pictures are displayed in a second staircase 150 pixels to the right of the first staircase. The number of images per flight of stairs is modifiable, as is the number of flights, the gradient and step height.⁶⁰

As well as the main working page, the work comprises three static pages ('Home', 'About' and 'Archive'). 'Home' provides some basic introductory text and gives the viewer the option to visit the 'nude' or 'noodle' version of the work. 'About' instructs viewers on how to interact with the work, and 'Archive' stores viewers' staircases (described below). The work underwent several iterations, with significant changes being made to its design, navigation and functionality. Three versions of the homepage and eighteen versions of the main page were created. Appendix 1 provides detailed documentation of aesthetic and functional changes to the

main page. Screenshots of the homepage can be seen in Figs. 3.9 and 4.0 below.

⁶⁰ In the original version, after six staircases, the browser window was wiped out and the process continued again from the top left with the next set of 15 pictures. This whole process continued until the page was closed or refreshed. We realized, however that this could be very frustrating for viewers who were waiting to take a screenshot of their custom staircase at a particular moment, only to find it wiped.

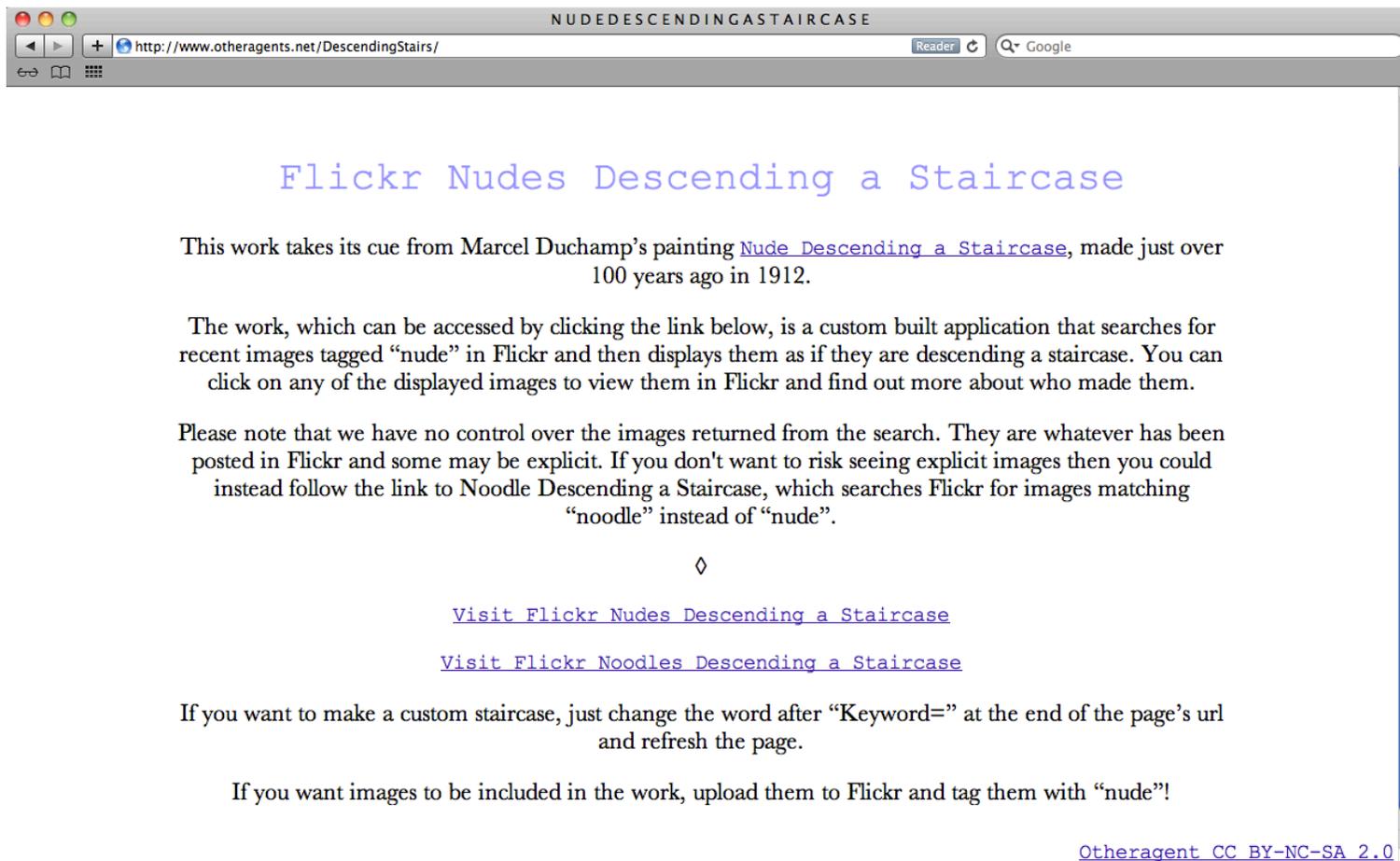


Fig. 3.9 *Flickr Nudes Descending a Staircase*, homepage version 1, 2013, screenshot.

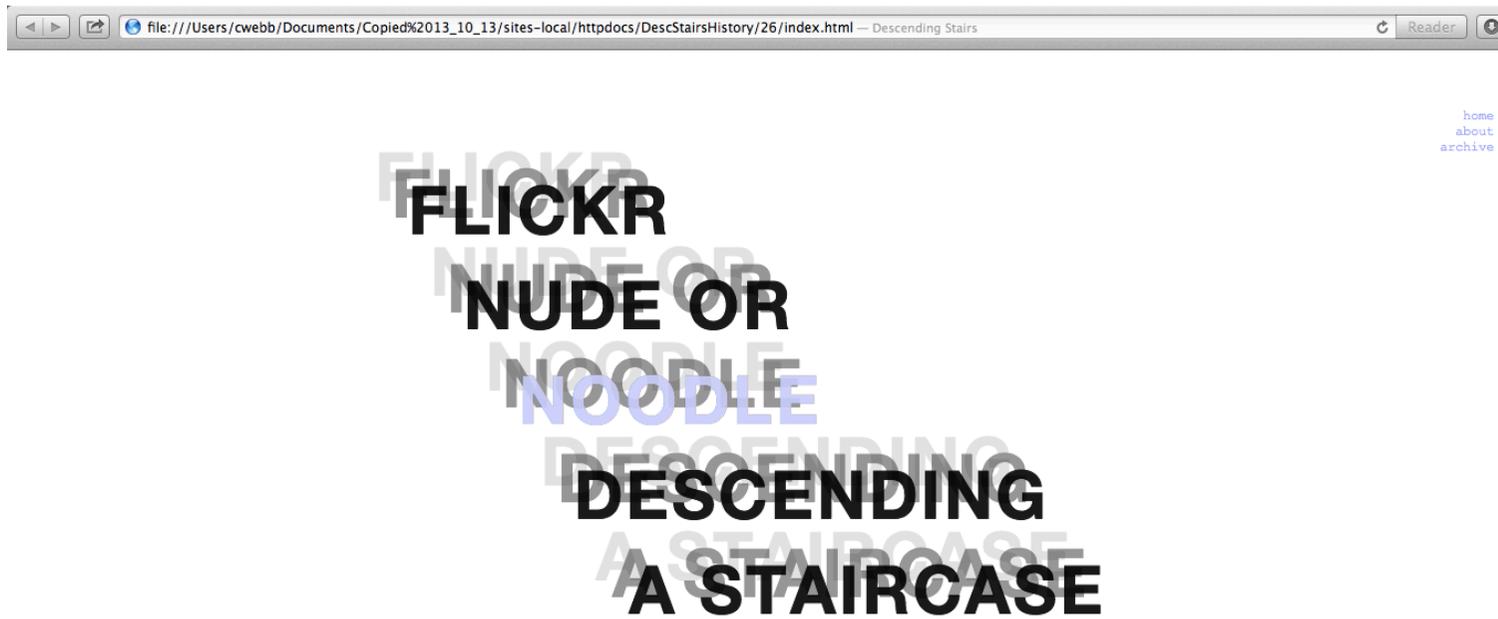


Fig. 4.0 *Flickr Nude or Noodle Descending a Staircase*, homepage version 2, 2013, screenshot.

Changes made to the homepage depended on changes to the functionality of the main page. For example, as new features and pages were added it became necessary to create a menu on the homepage. The most significant change was in version 2 of the homepage, which removed all 'explanatory' text, placing greater emphasis on graphic design. This was an attempt to create greater visual consistency in this work and my personal website www.otheragents.net, following discussions at the PhD transfer stage about maintaining a consistent professional online identity. Although the look of version 2 achieved this consistency, the lack of text on the homepage made less explicit the viewer's ability to choose which version of the work to enter. I wanted the work to be open to as many people as possible, so I reverted back to a version that included the explanatory text and a menu offering navigation to the other pages.

The introduction of the term 'noodle', described on page 31, suggested there was potential for the work to be further modified by the viewer; if they could search for 'noodle' instead of 'nude', why not other terms as well? Following this we enabled the viewer to edit the keyword at the end of the URL of the main page so they could create a staircase of

images associated with any chosen keyword. Following this, we introduced a further series of features. The search field is the main mechanism by which the viewer can interact with the work. A 'staircase capture' function allows the viewer to take an automatic screenshot of their staircase and submit it to an archive (see Fig. 4.1). This feature creates a visible record of how people have contributed to the work over time, but has not been used very heavily. Seven staircases were captured at the private view of *Everything Wants to Run* (discussed below), for the terms 'pregnant', 'plaster', 'noel Edmunds', 'jim tetlow', 'goode', 'gary savage' and 'cheesy'. It may not be obvious that capturing a staircase is a possibility, or people may just not want to do it. The archive demonstrates that the presence of an interactive element in itself does not guarantee interaction, just as placing an artwork on Tumblr does not guarantee an audience, as discussed in Practice 2. The 'African Dance' staircase (see Fig. 4.2) was created during the display of the work at the 2014 Screening Scholarship Media Festival (Camra, 2014), which shows that the promotion of the work at a physical event prompts engagement with its interactive elements.

Various feedback points (PhD transfer stage, informal feedback from friends and colleagues, showing the work in an exhibition) revealed that it was not obvious to viewers that they could contribute to the work, and that better navigation and signposting were required. To encourage viewers to contribute, I created iconographic buttons for the actions 'slow down', 'speed up', 'pause', 'step back', 'view stats', 'capture', 'customize', 'refresh', 'view archive' and 'home' (see version 2.7 in Appendix 1). These buttons were designed to look like a media player interface, in the hope that this would feel intuitive to the viewer.

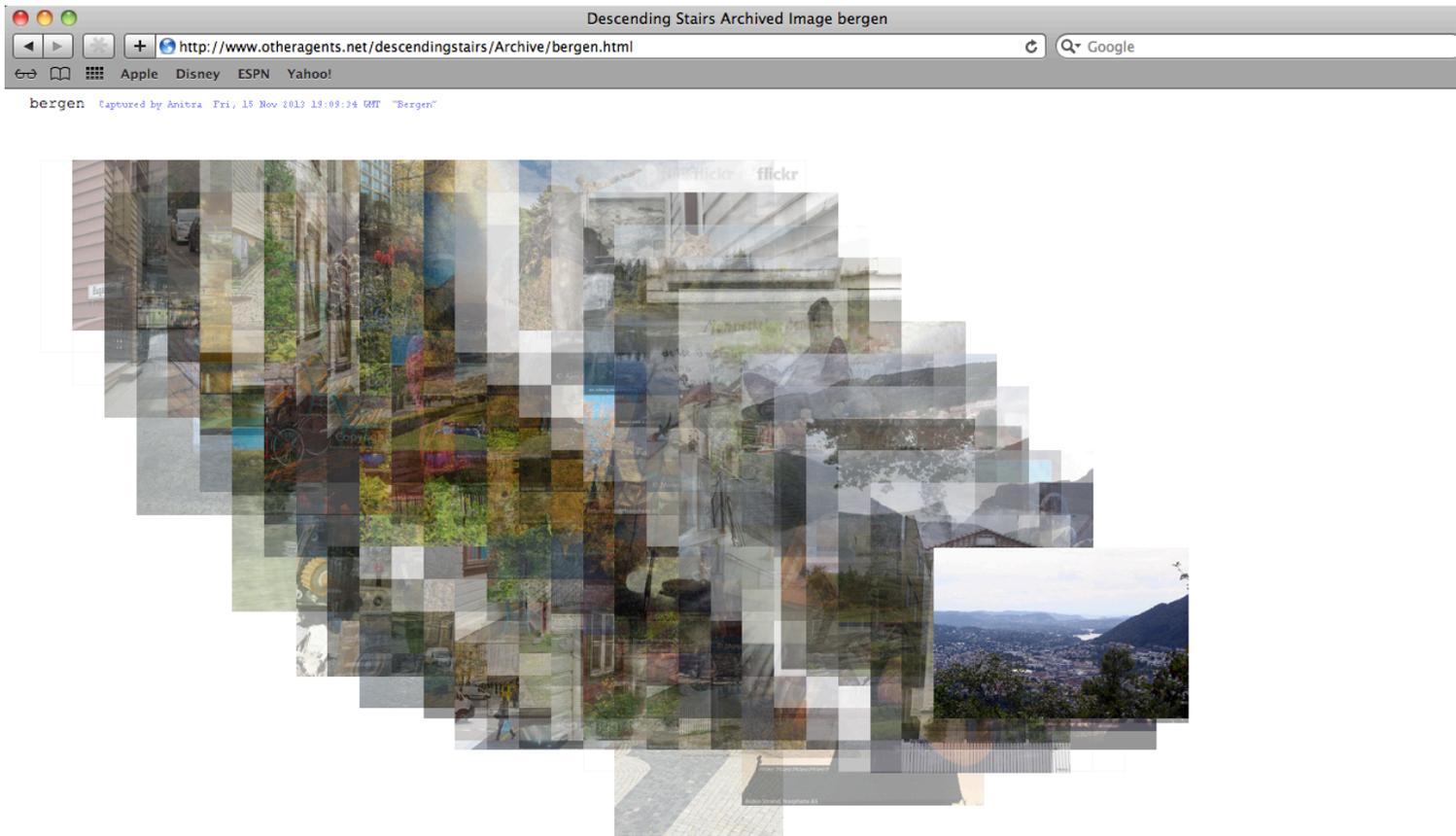


Fig. 4.1 'Bergen' staircase, created by Anitra, Friday, 15 November 2013, screenshot.

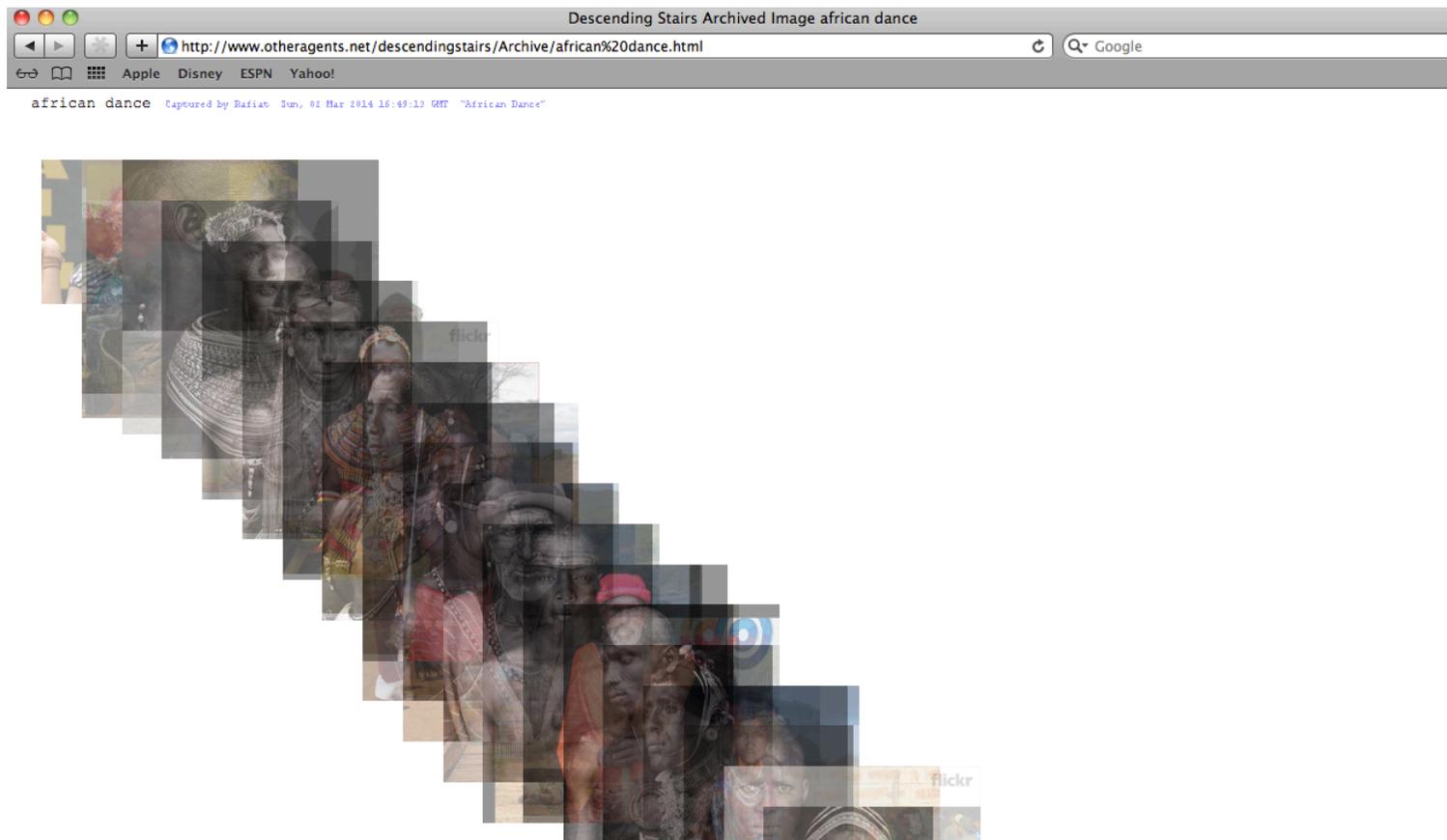


Fig. 4.2 'African Dance' staircase, created by Rafiat, Sunday, 2 March 2014, screenshot.

Genealogy part 3: gallery version

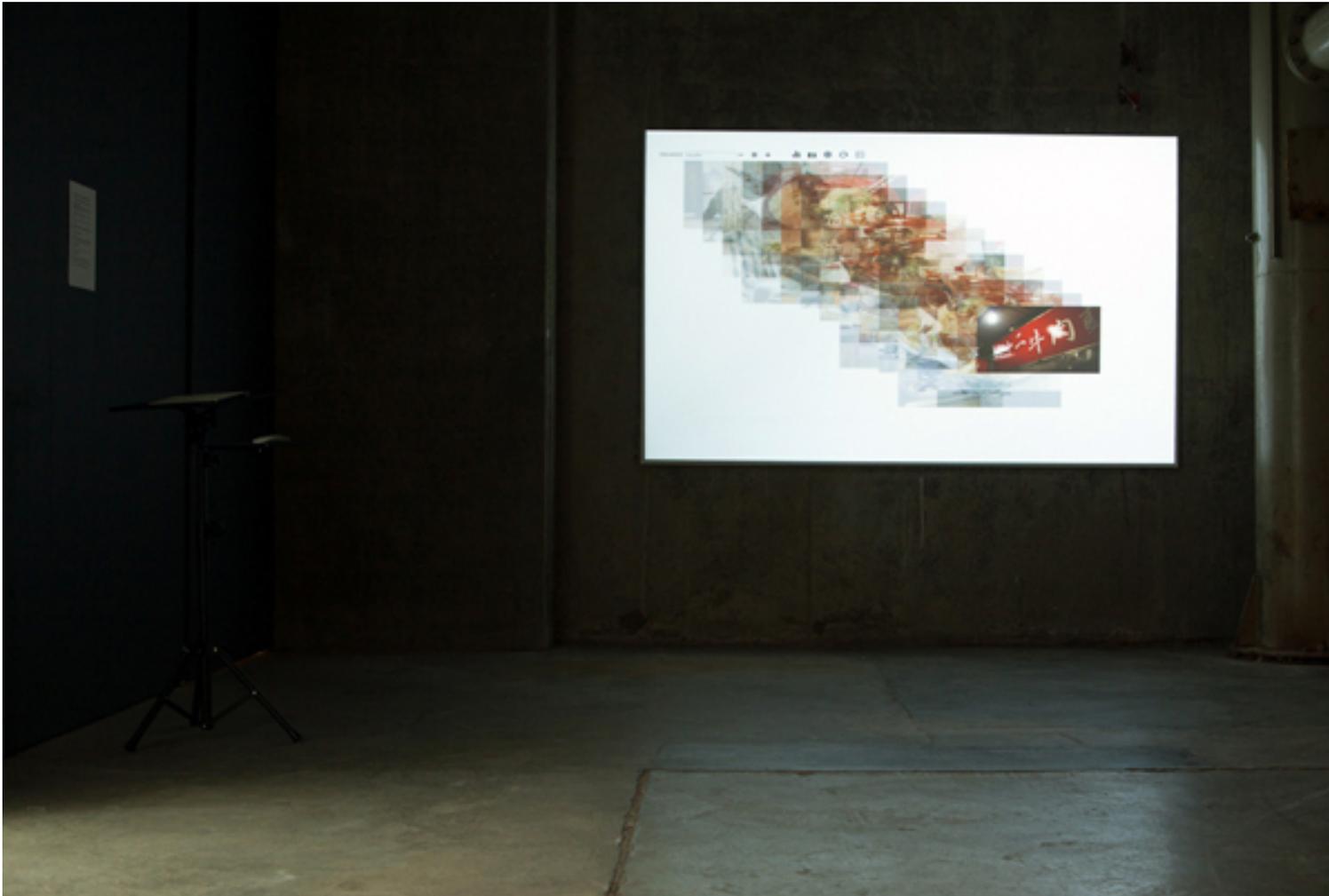


Fig. 4.3 *Flickr Nude or Noodle Descending a Staircase*, installation view, Block 336 Gallery, 2013.

Flickr Nude or Noodle Descending a Staircase was exhibited as part of the exhibition *Everything Wants to Run* held at Block 336 Gallery, Brixton, London, 2013 (Block 336, 2016). It was displayed as a wall mounted projection with a wirelessly connected keyboard and mouse housed on a freestanding support (see Fig. 4.3). Instructions for how to 'use' the work were adapted from the 'About' page of the website and pinned to the wall next to the keyboard and mouse (see Fig. 4.4).

As noted in the Methodology chapter, artists working in the field of web-based art have to negotiate the display of their work for the web and physical spaces, which has presented new challenges to artists, museums and curators (Gere, 2004; Christiane Paul, 2008; Graham & Cook, 2010; Sabine Hochrieser *et al.*, 2009). Adapting my work for exhibition settings became a necessary 'method' as opportunities to show the work in physical spaces arose. As Hochrieser *et al.* note: 'showing a net artwork in the real space means more than simply re-presenting it but also reformatting it for the best possible experience – in a physical exhibition space with all the features and traits it can be specified with' (Hochrieser *et al.*, 2009: 50).

FLICKR NUDE OR NOODLE DESCENDING A STAIRCASE

You are invited to contribute to an ongoing staircase archive, which contains screenshots of searches made by members of the public. Here's how it works:

CREATE YOUR STAIRCASE

Enter any word into the 'keyword' box and press enter. You can search for images tagged with multiple words by using commas, e.g. 'red, white, blue' will retrieve images tagged with red, white *and* blue.

 Click the 'slow down', 'speed up' and 'pause' buttons to change the speed of your staircase or to stop the staircase.

 Once on pause, use the 'step-back' button to go back to any image you may have missed.

 Click the 'options' button to choose the number of flights of stairs and how many steps per flight. This allows you to customize the size and shape of your staircase.

CAPTURE YOUR STAIRCASE

 The capture button automatically takes a screenshot of your staircase. A window will open up asking for your name and a comment – these are optional. Press 'Capture' and your staircase will be added to the staircase archive.

VIEW YOUR STAIRCASE

 Click the 'view archive' button to visit the staircase archive.

TROUBLESHOOTING

 There are occasional glitches with this work! This can be caused by problems with the Flickr API, connectivity, or other issues. Use the refresh button if you have any problems. If that doesn't work, please try again later...

Visit the work at home: www.otheragents.net/descendingstairs

Fig. 4.4 *Flickr Nude or Noodle Descending a Staircase*, gallery instructions.

Here, it was important that the viewer could not easily exit the work and browse the web, so we created a 'gallery mode'. This removed the 'home' button so that during the exhibition, viewers could only view the main page or the archive page. The archive page was set to open in a new window, and included a link back to the main page, which further structured viewers' navigation of the work. The browser was set to 'display mode', and HTML was used to position the buttons so that viewers were less likely to hover over the toolbar and make it appear in the display. This did occur several times during the private view, and there were moments when viewers clicked somewhere that caused the desktop of the computer to appear. There were several occasions when the work could not run due to interruptions to the gallery's broadband connection, and because, at one point, the Flickr website itself went down. These kinds of contingency still remain an inherent part of web-based works.

Viewing and/or interacting with the work in a gallery setting is significantly different to doing so on a personal computer or mobile device, not only because of the scale and aesthetic transformation of the work in a gallery space, but because in a gallery, interacting with and contributing to the work

becomes a public act. One viewer noted that they felt they were 'on stage' when searching for a term in the gallery.⁶¹ Another visitor spilt his drink on the floor by the stand where the keyboard and mouse were positioned. After quietly mopping up the spilt liquid and ice, he typed in 'spilt' and stood and watched the staircase unfolding before moving on. It was a poignant moment that offered another sense of how the work is nuanced by the participants' actions in the gallery space.

⁶¹ When discussing this during a supervision, Dr. Tim O'Riley told an anecdote about his cat, who was very shy and wouldn't come into the room when his friend, Hans-Jörg visited. Later, Tim had a Skype meeting with Hans-Jörg, during which the cat jumped on Tim's lap (Hans-Jörg no longer posing a threat as a digital version of himself). The interesting thing was Hans-Jörg's reaction – he was shocked to see the cat! He hadn't accounted for the fact that it would behave very differently when its 'audience' took on a digital form. The point is that the viewer of this work is likely to behave differently when engaging with it online in relative privacy, rather than in the physical presence of others.

The role of the viewer: interaction, participation, collaboration

The decision to allow the viewer to interact with the work was a departure in my practice that offered a way to explore the artwork as an 'interactive' domain, or, as Bourriaud puts it, a 'generator of activities' (Bourriaud, 2002a: 13). As viewers now had a more significant role, it was necessary to articulate their input in the production of the work. The active role of the viewer in the production of art has an historical precedent, independent of the web. Tim O'Riley states:

Artistic activity (perhaps over and above production)^[62] engenders viewer activity, the artist's role being, perhaps, to structure and question the nature, type and purpose of this activity. The work's meaning is revealed through the conjunction of viewer, work and

⁶² For O'Riley, 'activity' is a broader term than 'production' as it refers to the ripple effect of the artwork beyond itself, which is expressed through the conjunction of viewer, work, and world. 'Production' refers more specifically to 'the work' – whatever form it takes. For me, 'production' is a broad term referring to activity, rather than the artwork. The consideration of the role of the viewer in this work demonstrates that even at the point of reception, my interest is in the activity of 'production'. One can produce something without 'authoring' it.

world, in a process that is ultimately fluid, dynamic and mobile. (O'Riley, 2006: 2)

As noted in the Literature Review, postmodernist theories posited that the reader's active role in the production of a work's meaning was important in re-evaluating the author's hegemonic status. For Alan Kirby, however, digital culture makes the reader's mental, interpretive role literal, as readers can literally and visibly shape the development of a text such as a Wikipedia page, blog, or social media site. For Kirby, 'digimodernism' has created a new form of textuality, in which functional titles such as 'reader, author, viewer, producer, director, listener, presenter, writer' are disrupted, and given new, hybridized meanings (Kirby 2009: 52). He states:

The digimodernist text in its pure form is made up to a varying degree by the reader or viewer or textual consumer. This figure becomes authorial in this sense: s/he makes text where none existed before. It isn't that his/her reading is of a kind to suggest meanings; there is no metaphor here. In an act distinct from their act of reading or viewing, such a reader or viewer gives to the world textual content or shapes the development and progress of a text in visible form. (Kirby 2009: 51)

Viewers of *Flickr Nude or Noodle Descending a Staircase* can both read (in the postmodernist sense) and visibly shape the

development of the work, which prompted me to explore various terms that could describe their activity: 'interaction', 'participation' and 'collaboration'. This helped me reflect on the varying levels of viewer activity, and consider whether this was something I wanted to foster further in my practice.

Graham and Cook provide 'quick and usable' definitions of the terms 'interaction', 'participation' and 'collaboration' in *Rethinking Curating* (Graham & Cook, 2010: 112–114). The following table (Fig. 4.5) is adapted from their book, summarizing definitions and characteristics of these terms. I used this to map the different ways in which the viewer can apprehend and/or visibly shape *Flickr Nude or Noodle Descending a Staircase*. As Fig. 4.5 demonstrates, there are overlaps where activities could be considered both interactive and/or participative, suggesting that the terms are sometimes interchangeable, and that 'recording' isn't a pre-requisite for, but rather one factor that can identify participation. Graham and Cook note:

Some have argued that an artwork can 'act upon' a human in terms of a mental or emotional reaction, but considering that some kind of human reaction can be expected from any kind of external stimulus, then this

'default option' makes almost everything 'interactive', and then the word becomes an inaccurate catch-all. (Graham & Cook, 2010: 112–113)

In line with this, I do not consider the creation of a mental or emotional reaction in the viewer as constituting 'interactivity' in my work, and so have not included 'just' viewing the work in the table. Importantly, *where* the work is being viewed or interacted with has a bearing on the nature of the viewer activity. For example, a viewer's motivation to enter a particular search term or pause a staircase at a certain moment may be different in public or private, and it could create a greater effect *between* viewers in the public setting.

Activity category	Category description	Viewer activity
Reaction	<p>'A human presses keys or triggers sensors, and the machine or computer program reacts'</p> <p>Is often popularly (falsely) termed 'interaction'</p>	View nude or noodle staircase and use pause/speed up/slow down buttons
Interaction	<p>'Acting upon each other'</p> <p>Can occur between people, between people and machines, between machines, or between artwork and audience</p>	<p>Create staircase</p> <p>Capture staircase</p> <p>Add comments to created staircase</p>
Participation	<p>'To have a share in or take part in'</p> <p>Implies that the participant can have some kind of input that is recorded. Involves not just getting reactions, but also changing the artwork's content</p>	<p>Create staircase</p> <p>Capture staircase</p> <p>Add comments to created staircase</p>
Collaboration	<p>'Working jointly with'</p> <p>Implies the production of something with a degree of equality between the participants. Concerns production more than relationship between artwork and audience</p>	N/A

Fig. 4.5 Table adapted from Graham and Cook (2010: 112-114).

Interactive Art (as an art historical field) connotes a haptic, sensorial approach, in which embodiment plays a central role and the activation of the work depends on physical interaction in space, typically an installation. As Erkki Huhmato states in his recollection of early interactive art, 'the visitor was not only allowed, but required to touch the work. The touch – often physical, but sometimes “virtualized”, mediated by a videocamera or a microphone, was essential' (Huhmato, 2004: 2).⁶³ Although *Flickr Nude or Noodle Descending a Staircase* does invite the viewer to physically interact by using a series of buttons, it is not concerned with the senses or embodiment through those interactions. It is therefore reasonable to use the common sense of 'interaction' to describe people's engagement with the work, but this does not mean it fits into the art historical field of Interactive Art.

⁶³ Bosma is critical of superficially constructed forms of interaction: 'The much sought after “interactivity” does not reside in well designed interfaces and interesting buttons to push (or windows to fill), but lies hidden within the presence of the audience inside the network. Collaborations of variable intensity, exploration of networked art pieces and the discourse around these are causing the audience to directly enter the realm of critical and artistic practice simultaneously' (Bosma, 2000: n.p).

As shown above, certain forms of viewer activity can be understood as participative according to Graham and Cook's definition. However, the term 'participation' is also widely adopted and critically examined in the broader culture of socially and politically engaged art. In her 2006 book *Participation*, Claire Bishop emphasizes the social dimensions of participation, rather than the 'activation of the individual viewer in so-called “interactive” art and installation' facilitated by digital technologies (Bishop, 2006a: 10). She states that participatory art is underpinned by three concerns – activation, authorship, and community. The first involves 'the desire to create an active subject, one who will be empowered by the experience of physical or symbolic participation' (Bishop, 2006a: 12). The second pivots around ceding authorial control, which is 'conventionally regarded as more egalitarian and democratic than the creation of a work by a single artist' (Bishop, 2006a: 12). The third is about 'a restoration of the social bond through a collective elaboration of meaning' (Bishop, 2006a: 12).⁶⁴

⁶⁴ Bishop criticizes discourses of participation that eclipse the aesthetic impact of art, focusing instead on the models of collaborative practice they offer, or the 'ameliorative' effects they yield for society (Jennifer Roche, 2008: 202). She notes that 'accusations of mastery and egocentrism are levelled at artists

Both socially engaged and new media art have 'languages for identifying different types of participative relationships between artwork and audience', which are 'not shared by the general world of contemporary art' (Graham & Cook, 2010: 116). Understanding these languages helped me situate the work in a context that makes sense of what the work 'does'. The viewer activities enabled in *Flickr Nude or Noodle Descending a Staircase* are better described by the vocabularies of new media art than socially engaged art, since its aim was not to produce a non-hierarchical social model, empower the subject or heal a social bond. Viewers can be considered to interact with and participate in the work, according to Graham and Cook's definition of these terms, which overlap. This does not mean, however, that *Flickr Nude or Noodle Descending a Staircase* fits into the category of Participatory Art.

Like Graham and Cook, Beech distinguishes between collaboration and participation:

Collaborators...are distinct from participants insofar as they share authorial rights over the artwork that

who work with participants to realize a project instead of allowing it to emerge through consensual collaboration' (Bishop, 2006b: 180).

permit them, among other things, to make fundamental decisions about the key structural features of the work. That is, collaborators have rights that are withheld from participants. (Beech, 2008: 3)

Similarly, I do not consider viewers who interact with or participate in the work as collaborators, as none of them make fundamental decisions about the structural features of the work. Even though people who create and contribute staircases 'author' aspects of the work, they were (intentionally) not involved as consensual collaborators. Arthur's relatively high degree of authorial intentionality, as compared with other agents who contribute to the work's production, prompted me to consider whether he was a 'collaborator'. Our intentional agreement to work towards a shared end could be seen as a collaborative form of working, and Arthur *did* have authorial rights that were withheld from other actors that contributed to its production, such as writing the code and engaging in discussions about the development of the work. However, fundamental decisions about the key structural features of the work were my responsibility, which indicates that Arthur was not a collaborator in Beech's sense of the term. Arthur's overall role is discussed above in the Methodology chapter.

The introduction of viewer interaction was also a way to explore my authorial agency in relation to others who ‘author’ aspects of the work. Returning to Sollfrank’s distinction between the *net.art generator*, and its results (the images people generate and submit to a database), a distinction can be made here between *Flickr Nude or Noodle Descending a Staircase*, and *its* results (the staircases people create and submit to a database). I am clearly the author of the overall artwork, but the individuals can *also* be said to ‘author’ their own staircases.⁶⁵ This points to the surplus connotations of extra-subjective authorship. Being co-present with but distinct from those contributing to the work allowed me to articulate what kinds of authorial activity was taking place in the work, and what was being generated through it.

The role of hashtags

My approach to and reflections about this work were influenced by my involvement with the DMI. In particular,

⁶⁵ Questions of copyright were not at the forefront of my mind in this work. However, Sollfrank’s distinction between the authorship of the overall artwork and the results it produces signals that different questions of copyright would arise in relation to these respective aspects of the work.

digital methods allowed me to think about the non-human agents involved in the production of the work, including the hashtags, images and Flickr API. Of particular interest here were the hashtags, which I came to understand as digital objects that could be appropriated for art practice. In this work, they are the specific mechanism by which people’s Flickr images are aggregated and included. The hashtags are therefore as much a material aspect of the work as the images themselves. Clay Shirky describes the act of tagging as ‘free form labelling, without regard to categorical constraints’ (Shirky, 2005: n.p). The lack of categorical constraints, which distinguishes tagging from traditional forms of classification such as those adopted by libraries, enables a form of user-developed classification. This brings surprise and humour to the work when it displays images that seem incongruous with the keyword in play. For example, ‘Noodle’ typically returns images of bowls of actual noodles, but also intermittently returns cats, because people name their cats ‘Noodle’. Other images returned for noodle have included a toy, calligraphy pen, people at a mangafest convention and beer. User-classification or tagging can be understood as a form of social practice, and hashtags are grounded within this context. They

are markers of human agency and subjectivity. In this work, I appropriate the images, hashtags *and* the social process of user classification that contextualizes and produces them. The appropriation of this social process of tagging as a contingent factor in the work produces unexpected and uncontrollable formations. This demonstrates that although the hashtags can be understood as digital objects, they also signify forms of social human agency.

Summary

I consider *Flickr Nude or Noodle Descending a Staircase* to be my first 'natively digital' artwork, as it uses the web as a medium rather than a device for dissemination. Exhibiting the work in a gallery setting meant reformatting it for a physical space, demonstrating the need for web-based artists to negotiate the display of their work for the web and physical spaces. In a gallery setting, viewing, interacting with or contributing to the work became a public act, which created a sense of performativity that is not present when the work is viewed on a personal computer or mobile device. *Flickr Nude or Noodle Descending a Staircase* engenders different forms of

viewer activity – including interacting or participating, and authoring – depending on how viewers engage with the work. Where they create and submit a staircase, they are the authors of *that aspect* of the work. The work thus incorporates various instances and degrees of authorial intentionality within its overall production. None of these instances diminish my role as the author of the overall work, but rather demonstrate how a surplus inheres in extra-subjective authorship. Hashtags played an important role in the work. They are seen as both digital objects *and* markers of human subjectivity and user classification. By appropriating hashtags, I also appropriate the social process of tagging, which produces unexpected formations within the work. After making *Flickr Nude or Noodle Descending a Staircase*, I did not see interaction as a necessary component of future works, as I felt there was a risk of incorporating interactivity 'for its own sake'.

INTRODUCTION

METHODOLOGY

LITERATURE REVIEW

PRACTICE REVIEW

PRACTICE 1

PRACTICE 2

PRACTICE 3

PRACTICE 4

THE COPYRIGHT EPISODE

CONCLUSIONS

BIBLIOGRAPHY

APPENDICES

Fig. 4.6 *Selfie Portrait*, 2014, screenshot 1 (homepage), p. 157.

How do people who post selfies on Instagram describe themselves?

Fig. 4.7 *Selfie Portrait*, 2014, screenshot 2, p. 159.



Walking with Jesus 💡

Fig. 4.8 *Selfie Portrait*, 2014, screenshot 3, p. 161.



✨ that may require me to be social ✨

Selfie Portrait

Because selfies are images of selves, *Selfie Portrait* re-focused my attention on the production of subjectivities, and the term ‘extra-subjectivity’.⁶⁶ Part of my intention was to bring my reading of selfie-taking to the work: it is a shared, techno-social process of producing subjectivities, enacted by millions of people. It produces an endless stream of selfies that highlights the tensions between sameness and individuality, exemplarity and exceptionality, structure (imposed by Instagram) and agency (enacted by Instagram users). Other intentions were to counter Andrew Keen’s argument that selfies are narcissistic, and to reflect (on) my understanding of them as representations of human subjectivities as opposed to ‘just’ digital objects or data. These intentions are discussed throughout the chapter.

Selfie Portrait was originally motivated by an invitation to make an artwork for Virtualverbs.com, a website created by artist and curator Molly Richards. Contributing artists are invited to respond to a list of verbs relating to Internet

⁶⁶ This work highlighted the entanglement of subjectivity and ‘identity’ in the context of the web, which I discuss in the conclusion of the thesis.

practice and culture, and display the resulting artwork on the website (Richards, 2013).⁶⁷ I chose to respond to the word ‘selfie’ as it received significant media attention during 2013, which I felt would provide traction for the reception of the work.⁶⁸ A selfie is ‘a photograph that one has taken of oneself, typically one taken with a smartphone or webcam and uploaded to a social media website’ (Oxford Dictionaries, 2013: n.p). ‘Selfie’ was announced as the Oxford Dictionaries International Word of the Year in November 2013, and its frequency of use increased by 17,000% over the preceding year (Oxford Dictionaries, 2013: n.p). Jerry Saltz notes that selfies are ‘formally distinct’ and usually less technically accomplished or considered than traditional self-portraits (Saltz, 2014: 2). However, formal qualities or levels of technical accomplishment are not what fundamentally distinguish selfies from other forms of self-portraiture.

⁶⁷ Richard Serra’s 1967–68 ‘Verb List’ and Brandon Bauer’s ‘Post Internet Verb List’ influenced the list of verbs (Bauer, 2011). Samantha Friedman notes that Serra’s work lists ‘the infinitives of 84 verbs – to roll, to crease, to fold, to store, etc. – and 24 possible contexts – of gravity, of entropy, of nature, etc’ (Friedman, 2011: n.p). Bauer’s list re-interprets Serra in relation to a ‘post-Internet cultural situation’ (Bauer, 2011: 4), and includes verbs such as open, search, copy, merge, bitmap and encode (Bauer, 2011: 6).

⁶⁸ ‘Selfie’ is listed as a verb on the site, although technically it is a noun.

Selfies are distinct because their form of transmission (being shared on a social network) constitutes their material condition. Although it is possible to take a self-portrait with a smartphone or webcam without sharing it on a social network, the sharing element is such a fundamental characteristic of the selfie, that I consider it to be a defining one.⁶⁹ I therefore define selfies as photographs people have taken of themselves and shared on a social network. In this sense, a selfie is as much an event as an object. Rather than making a philosophical distinction between objects and events as discussed by Roberto Casati and Achille Varzi (2015: n.p), I am using 'event' here simply to indicate that as well as a material object, a selfie also 'takes place' at a specific time and place, within a techno-social context.

'Selfie' is a popular Instagram hashtag, with 263,321,674 photographs tagged #selfie on 16 February 2016 (Iconosquare, 2016: n.p). This presented a rich opportunity to use Instagram as a source of material and to experiment with

⁶⁹ The speed with which a self-portrait becomes a selfie depends on the software used. Selfies within the Instagram application are usually shared immediately (although it is possible to avoid this by having one's phone on airplane mode – see Kolowich, 2016: n.p). Selfies taken and edited outside Instagram and published later have a longer time delay between being self-portraits and selfies.

using the Instagram API, which I had previously done at the DMI Winter School (see the Methodology chapter).⁷⁰ Instagram is an image-based social network that allows users to take photographs, apply one of a selection of visual filters, and then share them via Instagram, Flickr, Facebook and Twitter. It has various social capabilities: users can follow each other, like or comment on individual photographs, and mention each other in comments. Publicly-available photographs can also be hashtagged, so they can be retrieved via Instagram's search function and appear on public tag pages, such as those provided by iconosquare.com. Tag pages display all the photographs people have uploaded with a particular hashtag. Instagram's membership and use has grown rapidly since it launched in October 2010: one hundred and fifty million photos were uploaded by August 2011, twenty billion by August 2014.

⁷⁰ Winnie Soon notes that 'there is a growing trend for artists (such as JODI, Jonathan Harris & Sep Kamvar, Jer Thorp and Shu Lea Cheang) to employ available web APIs in their works' (Soon, 2014: n.p). Discussing APIs as 'art making enablers', she states: 'First programmers, then artist/programmers, then artists became involved in collecting, interpreting, and publishing from the Internet; they include metadata as part of their artwork creation. As the technical barriers have been removed, the public interface is a major resource for artistic, creative, and technological practices. The results of such work reveal the complex behavior and patterns of the metadata world' (Soon, 2011: 4).

There were ten million users by September 2011, eighty million users by July 2012, one hundred million users by February 2013, and two hundred million users by April 2014 (Instagram, 2014c: n.p). Working with Instagram thus meant engaging with a vast edifice of imagery and associated metadata.

Technical description

Selfie Portrait uses PHP, JavaScript, JQuery, HTML and CSS. It also uses the Instagram API to retrieve and display Instagram photographs tagged with 'selfie' along with the biographical information of the people who posted them. The user provides this biographical information when they set up an account, and it is shown as part of their public profile. The question 'How do people who post selfies on Instagram describe themselves?' is displayed as a line of hyperlinked text on the homepage.⁷¹ When clicked, the link calls the working

page, which displays the selfies and the biographical descriptions associated with them. To get the selfies and biographical information, a daily scheduled PHP job runs in our Internet Service Provider's server to prepare a JSON data file containing a list of the fifty most recent photographs tagged #selfie, each with the biographical information of the person who posted them.⁷² The JSON data files are stored in the server and numbered, so it is possible for the code to easily determine their chronological order. To prepare the JSON data file, the PHP makes two calls to Instagram requesting two pages' worth of data describing the most recently posted photographs tagged #selfie. Instagram returns this data in JSON format, in chunks of approximately 25 sets per page. Arthur experimented with how much data to request, as we got failures if we asked for too much. Instagram does not return any actual picture files, just image URLs indicating where the picture files are stored.

⁷¹ This question may appear to belong to the realm of digital sociology, where one might see it answered through a collection and analysis of selfies and biographical information as research data. Here, however, the intention was not to 'answer' the question by making the artwork. Rather, the question struck me as a useful way to frame or introduce the work, and became an integral part of its presentation.

⁷² We use a Cron job – 'a scheduled task that is executed by the system at a specified time/date' (Timme, no date: n.p).

The data includes the ID of the user who posted the image and for each one the PHP makes a further request to Instagram to get that user's biographical information. The PHP saves an amalgamation of the image descriptions and biographical data in a JSON file as per the following example.

```
{  
  
  "username": "volkova__a",  
  
  "bio": "Hi\u270c I'm from Moscow,  
Russia\u270c I love musicals  
and theatre\u270c Follow me \u270c",  
  
  "fullname": "Alina \u270c",  
  
  "picture": "http://photos-  
b.ak.instagram.com/hphotos-ak-  
xpf1/10472015_452911991511745_1011449253_a.jpg"  
  ,  
  
  "link": "http://instagram.com/p/rT6p11RUKg/"  
  ,  
  
  "selfie": "http://scontent-  
a.cdninstagram.com/hphotos-xaf1/t51.2885-  
15/10560996_438911692917495_640730622_a.jpg" }  
}
```

When a viewer loads the working page, a JavaScript function runs and asks the PHP to send the most recent JSON file that was prepared by the daily scheduled job. The working page then calls another JavaScript function to start the process of displaying the photographs. For each pairing of image URL and biographical information in the most recent JSON file, a hidden HTML table is created containing both elements. This is added to an empty div element on the working page.⁷³ The JavaScript function then instructs the tables to successively fade in and out on a ten-second cycle. When the JavaScript gets to the end of the tables in the most recent file, it requests the second most recent, then the third, and so on until all files have been displayed. Should the JavaScript display all the files saved in the server, it would start the process again.

Instagram requires authentication via user login in order to respond to certain data requests made on behalf of a user, such as commenting, liking, or browsing a user's feed (Instagram, 2014a: n.p).

⁷³ A div tag 'defines a division or a section in an HTML document. The <div> tag is used to group block-elements to format them with CSS' (W3Schools, 2016b: n.p).

Selfie Portrait does not make calls that require authentication, so we were able to just use our own client_id and hence not trouble the user with the need to log in to Instagram to view the artwork.⁷⁴ However, Instagram limits the number of programmatic calls individual client_ids can make such that if we made a call every time anyone accessed the *Selfie Portrait* page, we could quickly run into that limit and be prevented from making further calls. To avoid this problem we chose to limit the number of calls we made per day and to store the retrieved data in a file on the server, which would be returned any time someone requested the *Selfie Portrait* page. Initially, this meant that only a set of approximately 200 photographs could be displayed during any one visit to the *Selfie Portrait* page. Once those had been displayed, a message appeared saying: 'That is all the data we have retrieved for today, please visit the site again tomorrow.' This was a significant limitation, because it meant that the stream of images came to an end within approximately 30 minutes, making it necessary to

manually refresh the work. Once the page was refreshed viewers would then see the same set of images appearing again. This would have been practically problematic if it was displayed in a gallery setting, where an invigilator would have to regularly manually refresh the work. Beyond pragmatics, presenting an apparently endless stream of selfies was an important part of the work's expressive properties, as discussed below. Our solution was to keep each day's data and use it to extend the length of the sequence. There were soon enough files in the server to provide many hours of display without repetition. In June 2016, Instagram changed their API terms of use, which meant that we were unable to collect new data from that point on. This demonstrates that web-based artworks built using social media APIs are dependent on the API terms and conditions, and can cease to function if changes are implemented by the platform owners.

⁷⁴ The 'client' is the application that attempts to access the data held within Instagram. A client_id 'simply associates your server, script, or program with a specific application' (KonstantinSviridov, 2015: n.p). Individuals who wish to use the Instagram API are required to register their application by providing a website URL, phone number and statement specifying what they intend to build. We stated that we would be creating 'an online art application'.

Contextualizing selfies

While developing *Selfie Portrait*, I undertook a focused review of literature on selfies in order to grasp the implications of how they have been positioned by social and cultural theorists, and to think through my own affective responses to selfies.⁷⁵ Some scholars such as Keen (quoted in *The Current*, 2013) and journalists such as Thomas Gorton (2014), dismiss selfies as narcissistic, whilst others, such as Sarah Gram (2013), Jenna Brager (2014) and Elizabeth Losh (no date) take a more nuanced position. Feminist critics exploring 'different forms of agency in image making', such as Natalie Hendry, Jill Walker Rettberg, and Teresa Senft, founder of the 'Selfies Research Network' Facebook group, propose that selfies can offer a form of empowerment (Losh, no date). However, Losh notes that it is important to be wary of over-simplified

⁷⁵ In a straightforward sense, affect is 'often, but not exclusively, used as a synonym for passion, sentiment, mood, feeling or emotion' (Shepherd, 2016: n.p). For an overview of philosophical and psychological explanations of affect, see Shepherd (2016). For Simon O'Sullivan, affects are: 'moments of intensity, a reaction in/on the body at the level of matter. We might even say that affects are immanent to matter. They are certainly immanent to experience. (Following Spinoza, we might define affect as the effect another body, for example an art object, has upon my own body and my body's duration.)' (O'Sullivan, 2001: 126).

narratives of empowerment, and that photographically documenting oneself has the potential to be both expressive and repressive (Losh, no date). Gram views selfies as a form of labour under capital, which both demands and punishes young women's attempts to render themselves visible through adorning and representing their bodies in particular ways. The selfie is 'clearly the product of work, both on the body and on the representation of the body... [it] is both a representation of and, in the case of social media sites like Instagram and Facebook, an opportunity for the public recognition of that labour' (Gram, 2013: n.p). She states that the problem is not whether selfies are narcissistic or empowering, but that young women's bodies are commodified and entered into an attention economy. Although *Selfie Portrait* does not focus only on young women, Gram's framing of selfies as a form of labour prompted me to think about whether I was exploiting this labour when I appropriated selfies. The issue of labour is discussed in the Literature Review, Practice 4, Chapter 4 and the conclusion.

In *The Cult of the Amateur*, Keen claims:

MySpace and Facebook are creating a youth culture of digital narcissism... the YouTube generation are more interested in self-expression than in learning about the outside world... kids are so busy self-broadcasting themselves on social networks that they no longer consume the creative work of professional musicians, novelists, or filmmakers. (Keen, 2007: xiii–xiv)

These claims can be understood within his broader argument that the proliferation of ‘amateur’ content online presents an assault on ‘cultural standards’, ‘moral values’ and traditional institutions such as newspapers and news magazines (Keen, 2007: 7). In a 2013 radio interview about selfies, he states that they too are an ‘extreme form of narcissism in which we’re deluding ourselves by falling in love with ourselves and endlessly photographing ourselves’ (Keen, quoted in *The Current*, 2013: 04:40)

I did not intend *Selfie Portrait* to illustrate an evaluative position on whether selfies are vehicles for narcissism. However, my affective response to them was informed by my response to Keen’s view, which I strongly reject. His argument implies that all forms of self-expression are narcissistic, which is incorrect. His accusations of narcissism appear to ignore

the social motivations for self-expression online – selfies are not inwardly directed acts of self-admiration, but are created and shared as part of a techno-social process of producing subjectivities. As Jason Read notes, the subject is a social individual ‘not just in the sense that he or she lives in society, but in the sense that individuality can only be articulated, can only be produced, within society’ (Read, 2010: 119). Even if selfies *were* narcissistic, as Gram notes:

Keen’s moral condemnation of the selfie as an act of narcissism is plainly unencumbered by any consideration that narcissism, as a personality trait, may not only be what capital expects but also *demand*s from young girls, in order that they be legible as girls at all. (Gram, 2013: n.p italics in original)

Rejecting Keen thus encouraged me to see selfies as the result of agential forms of image making and self-representation that take place in a techno-social context, rather than as acts of narcissism. This in turn influenced the aesthetic development of the work, discussed further in the following section.

The expressive properties of *Selfie Portrait*

In order to explore my intentions in the work, I tried to engender certain expressive properties through pace, duration, and the aesthetic reframing of selfies 'outside' Instagram.

As noted above, the selfies are displayed at a contemplative pace that allows the viewer to attend to the variations and subtleties of the images. This contemplative pace can be contrasted with another selfie-related project, *Selffeed.com*, created by Tyler Madsen, Erik Carter and Jillian Mayer.

Selffeed.com displays Instagram photographs tagged with #selfie in real time,⁷⁶ resulting in a rapid succession of images that emphasizes the 'transient superabundance' of millions of selfies on Instagram (Brager, 2014: n.p). The project was featured on the *dazeddigital.com* website with the headline: 'Watch a livestream of every #selfie posted on Instagram; at last, a bearable way to look at selfies – really, really quickly' (Gorton, 2014: n.p). The article states: 'With this constant flow

⁷⁶ 'Real time' is not a central feature of *Selfie Portrait*. This is partly because of technical limitations that forced us to store the selfies in our server. More importantly, however, I did not want to foreground rapidity as *Selffeed.com* does.

of photos you don't get the opportunity to waste time lamenting about someone's annoying selfie – just blink and you'll miss it' (Gorton, 2014: n.p). The sentiment that selfies are an annoying waste of time is contrasted in *Selfie Portrait*, where the flow of photos is slowed down, allowing the viewer enough time to look at the selfies and the biographical information individually. The focus on attention and contemplation is a key part of the affect the work creates, presenting selfies as instances of agential image-making that deserve attention as a form of social self-representation rather than dismissal as narcissism.

Alan Kirby's concept of 'onwardness' was helpful for thinking through the durational aspect of the work. He contends that onwardness is a dominant feature of the digimodernist text, and describes it as follows:

Onwardness: The digimodernist text exists now, in its coming into being, as something growing and incomplete. The traditional text appears to almost everyone in its entirety, ended, materially made. The digimodernist text, by contrast, is up for grabs: it is rolling, and the reader is plunged in among it as something that is ongoing. For the reader of the traditional text its time is after its fabrication; the time

of the digimodernist text seems to have a start but no end. (Kirby 2009: 52, italics in original)

There is a sense of onwardness in *Selfie Portrait*, as it presents an endless, rolling stream of selfies in serial formation. This was an essential part of the work, as it highlights the fact that selfie-taking is an effectively endless, ongoing practice. Like Kirby's digimodernist text, *Selfie Portrait* seems to have a start, but no end – it embodies a sense of something being set in motion, and the locus of my authorship is at this starting point. This does not, however, imply that myself or the artwork are 'generators' in Bourriaud's sense: 'The contemporary work of art does not position itself as the termination point of the "creative process" (a "finished product" to be contemplated) but as a site of navigation, a portal, a generator of activities' (Bourriaud, 2002a: 13).

Selfie Portrait does not 'generate' selfies, selfie-taking, or a particular kind of viewer activity, but rather absorbs or aggregates and reflects the selfies back, outside their original socio-technical context. As in *Flickr Nude or Noodle Descending a Staircase*, my authorial agency is enacted by creating an algorithmic framework through which images are re-

presented, rather than by selecting or modifying any particular images themselves. This marks a distinction between what I am doing and what Bourriaud describes as the role of the DJ or programmer, 'both of whom have the task of *selecting* cultural objects and inserting them into new contexts' (Bourriaud, 2002a: 7, my italics). Although I do clearly insert cultural objects (selfies) into a 'new context', I defer the process of *selection* to a programmatic command: 'include anything tagged #selfie'. By using the Instagram API, the work is opened up to whatever is happening on Instagram, and the selfies are shown in their original form with no editing, cropping or other image processing.

Selfie Portrait gives a new view of selfies by dissociating them from their original context in Instagram and combining them with the users' profile information. The images and profile information are not normally displayed in such direct proximity, or outside the platform. This new aesthetic context reconfigures the meaning and interpretation of the selfies, highlighting the role of visual and textual self-representation, and presenting selfies as agential instances of image making. Presenting the selfies and biographical information simply on a black screen, outside Instagram, draws attention to the fact that they are images of others, whether or not they have a

narcissistic origin. Thus, affect is created by allowing the viewer to encounter the selfies and the biographical descriptions as part of the artwork, rather than as part of Instagram. This also distances the work from the 'economy' of Instagram, providing reflection on, rather than complicity with it.

Selfie Portrait: gallery version

Selfie Portrait was exhibited as part of an exhibition and seminar *Thinking in Space: Experiments in Presenting Practice-Led Research* in the Cookhouse Gallery, Chelsea College of Art, in March 2014. It was displayed on a wall-mounted iPhone fixed to the wall in landscape format using Velcro (see Fig. 4.9). I wanted to explore how the expressive qualities of the work would be affected by it being displayed on an iPhone, a device on which Instagram selfies are often created and viewed. I used an iPhone 4, whose screen is 3.5 inches across diagonally, with a 960 x 640 pixel resolution at 326 ppi (Apple, 2016: n.p). This created an intimate relationship between the work and the viewer, who had to stand close to the iPhone to see the images. The iPhone was presented as a constitutive

part of the work, and – as a display device in a gallery – an art object, as well as the ubiquitous, everyday device it usually functions as. Dissociating the phone from its 'everydayness' and its personalized mobility created a discordant fixity for the object.⁷⁷

⁷⁷ Alexander R. Galloway and Eugene Thacker state that 'Digital media seem to be everywhere, not only in the esoteric realms of computer animation, but in the *everydayness* of the digital (email, mobile phones, the Internet)' (Galloway and Thacker, 2007: 10, italics in original).



Fig. 4.9 *Selfie Portrait*, installation view.

There was also a discordance created by the fact that what is normally such a personal device, not designed for group viewing, became something that people had to gather round and queue up to see. The instinctive physical swiping and zooming in and out we perform on mobile phones was not possible. Whereas the projection of *Flickr Nude or Noodle Descending a Staircase* scaled up the work from the dimensions of a personal computer or mobile device, this installation scaled *Selfie Portrait* down, since the relative dimensions of the phone seemed to shrink when its display screen was on a wall being viewed by multiple people, rather than in someone's palm being viewed just by them.

Fixing the iPhone to the gallery wall raised the question of how it signifies in an art (as opposed to an everyday) context. Allowing the work to be viewed on a mobile phone outside the gallery raises very different questions: How can the work function as art if it is viewed in the context of mobile media? How does viewing the work on a mobile device affect the contemplative properties I attempted to create in the work? In the context of mobile media, one could claim that the phone's 'everydayness' increases the proximity of the artwork to other forms of content that might be consumed or produced

through the phone. However, I contend that it is 'discursive contextualisation strategies and presentational models' (Hochrieser *et al.*, 2009: 48) that designate the work as art, over and above its mode of display. For this exhibition, I was physically present in the Cookhouse Gallery to talk about the work, it was presented within the context of practice-based research in a university setting, and had been described in an email invitation about the seminar. This kind of discursive contextualization could also have been enacted if I had wanted people to view the work on their individual mobile devices. This was what I attempted (though with limited success) in *Infinite Violets* (see Practice 2) where I used the context of an exhibition to instruct the viewer to view the work outside the exhibition, on a mobile device.

Part of the discursive contextualization and presentational strategy of a web-based work is determined by other websites that link to it. If someone clicked a hyperlink to *Selfie Portrait* from a webpage that contextualized the work, their encounter with it would be different than if they had arrived on the page without it. If an institution such as Rhizome 'hosted' the work, this would create further contextualization and framing of the work that could have an effect on how it is

read. In a gallery setting it is perhaps easier to determine the physical conditions under which the work is viewed, and therefore to have a higher degree of control over how its expressive properties are encountered. In the gallery space the work can be viewed only as it is presented, whereas on a mobile device in everyday circumstances it can be viewed whilst rushing down Oxford Street, in a dark room with nothing else going on, or in any other environment. Rather than trying to control these contingencies, I accept them as part of web-based practice. As noted in the Practice Review, it is necessary for the artist to negotiate different versions of their work for different contexts. In this case, the work 'works' on mobile devices, where the viewer is likely to have an intimate, personal encounter with it. I do not see this as precluding the need for exhibiting the work in other formats, just as I do not see exhibiting the work in a gallery as precluding the potential for it to be viewed on a mobile device.

At the time of the exhibition, none of the selfies were hyperlinked, so there was no way for the viewer to find out anything about the people who had posted them. This created a metaphorical and literal distance between the

viewer and the selfie-takers by rendering the latter anonymous and de-emphasizing their authorship. Following my investigations into the copyright implications of the work (discussed further in Chapter 4), each selfie was hyperlinked to the user's profile page on Instagram. When viewed in a browser, the viewer could then click on any selfie to find out more about the person who posted it. This re-emphasized the authorship of the selfie-takers.

Selfies in art and media visualization

In February 2014, media scholar Lev Manovich and a team of co-researchers launched *Selfiecity*, a project exploring the nature of selfies in five cities across the world (Manovich *et al.*, 2014).⁷⁸ The almost simultaneous publishing of *Selfiecity* and *Selfie Portrait* provided an opportunity to compare the use of selfies in the contexts of web-based art and media visualization. For *Selfiecity*, the researchers collected 656,000 Instagram photographs shared in Bangkok, Berlin, Moscow, New York, and São Paulo, 4–12 December 2013, by querying Instagram using the social media data provider GNIP.⁷⁹ The researchers did not want to limit their sample to images tagged #selfie, as there are large numbers of untagged selfies on Instagram.

⁷⁸ Lev Manovich coordinated the Selfiecity project in collaboration with Moritz Stefaner, Mehrdad Yazdani, Dominikus Baur, Daniel Goddemeyer, Alise Tifentale, Nadav Hochman and Jay Chow.

⁷⁹ GNIP is a service that offers 'complete access to real time streams of public data from the top social networks' (GNIP, 2015: n.p). Yoree Koh notes it accesses data from platforms like Twitter, analyzes it, and then 'resells it, primarily to businesses interested in how consumers view them' (Koh, 2014: n.p). Twitter purchased GNIP in 2014 for \$134.1 million (Koh, 2014: n.p).

Instead they used a combination of algorithmic and human analysis to narrow down their dataset. Of the initial set of photos, 120,000 (20,000–30,000 per city) were randomly selected and posted on Amazon Mechanical Turk, where two to four workers tagged each photo to establish which of them could be classified as selfies.⁸⁰ Caitlin Dewey (2014: n.p) notes that for each city, 1000 photos identified as selfies by two or more workers were selected and submitted again to Amazon Mechanical Turk's more skilled 'master workers', who estimated the age, gender and mood of the subjects based on their expressions. Facial recognition software was used to analyze the resulting set in order to elicit 'algorithmic estimations of eye, nose and mouth positions, [and] the degrees of different emotional expressions' (Selfiecity.net, 2014: n.p). Finally the selfiecity team examined the photos manually to identify any anomalies, and selected the final 3200 images, with 640 from each city. *Selfiecity* presents

⁸⁰ Amazon Mechanical Turk is an online labour market, where workers can complete a range of 'Human Intelligence Tasks' for small amounts of money (Amazon Mechanical Turk, 2016: n.p). The use of Amazon Mechanical Turk has been criticized by Losh, who notes that 'many scholars see the work arrangements for labour in Amazon's Mechanical Turk system as exploitative, and find their contracts difficult to reconcile with academic values' (Losh, no date: n.p).

findings on the demographics, poses and expressions of people who have taken selfies.

For example: 'there are significantly more women selfies than men selfies (from 1.3 times as many in Bangkok to 1.9 times more in Berlin). Moscow is a strong outlier – here, we have 4.6 times more female than male selfies!' (Selfiecity.net, 2014: n.p). *Selfiecity* also contains a 'selfiexploratory' section, where viewers can filter the dataset by demographics, pose, features and mood, which encourages viewers to 'experiment' with the data.

Selfie Portrait and *Selfiecity* both automatically collect and re-present large collections of selfies, but their approaches to doing this are distinct. *Selfiecity* uses a technique defined by Lev Manovich as 'media visualization', which enables researchers to map and study massive sets of media objects such as digital images or videos. The availability of massive media collections has resulted from the digitization of analogue media collections such as the Office of War Information photographs owned by the Library of Congress, the rise of mobile devices, user-generated content, social media and globalization (Manovich, 2011b: 2).

Due to their scale, they cannot be apprehended in their totality, and methods that may have been suitable for researching small collections of media objects – 'see all images or video, notice patterns, and interpret them' (Manovich, 2011b: 2) – are no longer practical or effective. Manovich argues that researchers need a visual overview of media collections, whilst also seeing the individual media objects in order to see patterns and relationships:

These techniques have to compress massive media universes into smaller observable media 'landscapes' compatible with the human information processing rates. At the same time, they have to keep enough of the details from the original images, video, audio or interactive experiences to enable the study of patterns in the data. (Manovich, 2011b: 4)

Manovich states that media visualization is distinct from information visualization, because it plots and displays actual images on graphs rather than representing them through the use of 'graphical primitives' such as points, bars or lines (see Fig. 5.0).

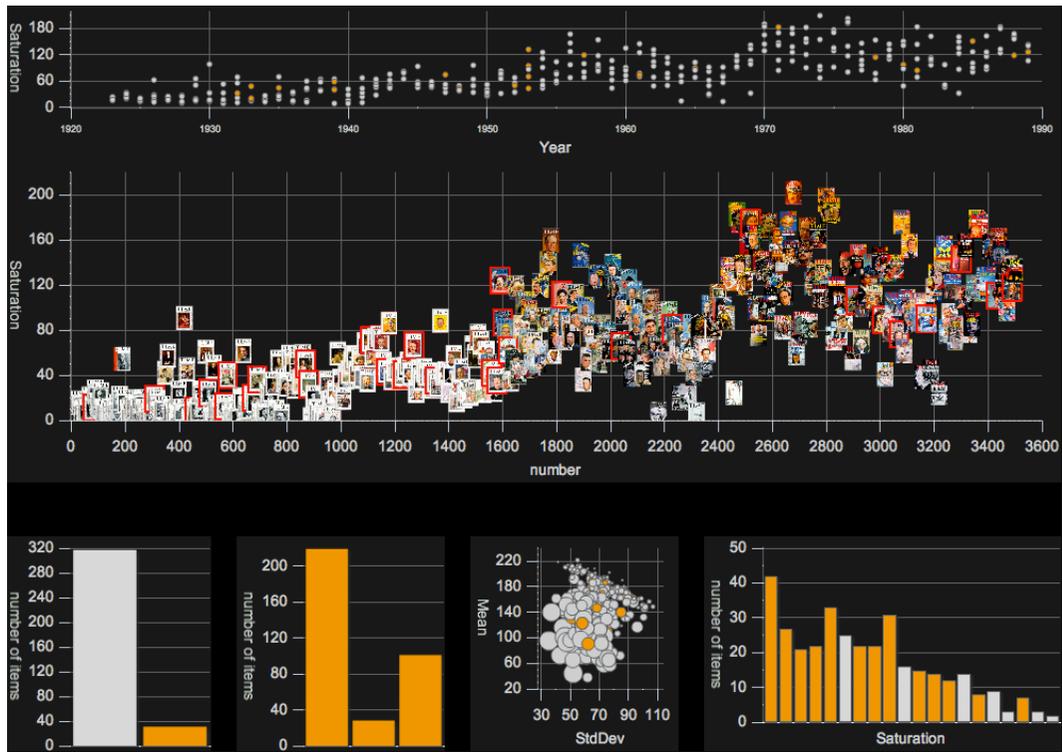


Fig. 5.0 Software Studies Initiative, 'Cultural analytics chart selection 2', 2010. Permission to reproduce this image was granted by Dr. Lev Manovich.

Selfiecity presents the selfies as 'imageplots' – in grids or as thumbnail images along graph axes, which the viewer can hover over to enlarge (see Fig. 5.1). *Selfie Portrait* does not try to 'see everything at once', or to plot the selfies in a geo-spatial manner that enables the identification of patterns. Rather, it invites the viewer to apprehend selfies in a new way through its durational nature, which *implies* a vast quantity of information. There are categorical distinctions between media

visualizations and artworks because these practices have different contexts, purposes and functions. As a piece of digital sociology, *Selfiecity* is fundamentally oriented towards 'findings'.

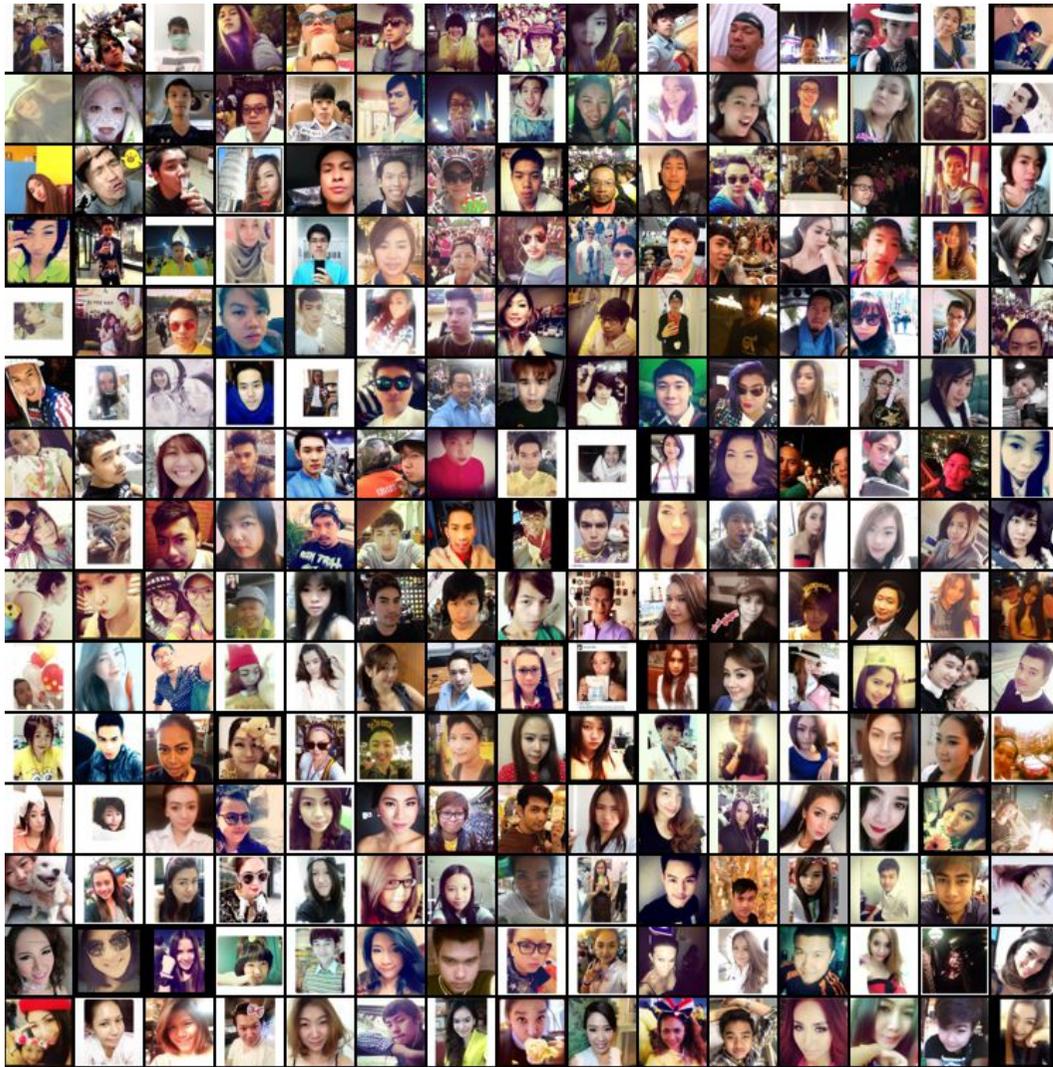


Fig. 5.1 Lev Manovich *et al.*, Bangkok imageplot *Selficity* project, 2014. Permission to reproduce this image was granted by Moritz Stefaner on behalf of the *Selficity* project.

As an artwork, *Selfie Portrait* is oriented differently. One might ask a ‘so what?’ question in relation to findings if their meaning or implications have not been fully articulated. However, art engenders the proposition ‘as if’ rather than the question ‘so what?’ It is useful to turn to Simon O’Sullivan to articulate this. He states:

Art, then, might be understood as the name for a function: a magical, an aesthetic, function of *transformation*. Art is less involved in making sense of the world and more involved in exploring the possibilities of being, of becoming, in the world. (O’Sullivan, 2001: 130)

Similarly, *Selfie Portrait* attempts to engender a transformation by reimagining selfies within the social realm, rather than by presenting ‘findings’ about them.

Selfies as data

An Instagram selfie (or any other Instagram photograph) has a variety of data associated with it. This includes personal information and metadata the user knowingly provides such as the image itself and any hashtags or geotags they add. It

can also include metadata added by other users, such as comments, or by Instagram, such as location data.⁸¹ Other data associated with a user’s account can be retrieved through the API, such as the user’s ID, location data, filters used, profile picture and biographical description. This information is a fundamental part of the selfie’s materiality and medium specificity, and an artist accessing selfies through the Instagram API is therefore not only appropriating the images, but also the information associated with them. Some of this information is created intentionally, specifically in relation to the image, such as any tags the user has added. Some is created intentionally, but in relation to the user’s account, such as their profile picture and biographical description. Some is not created intentionally, such as location data and user ID. To put this in Andrejevic’s terms, appropriating selfies also involves appropriating ‘non-authored’ information appended to or embedded in the ‘authored’ image. The copyright implications of ‘non-authored’ information are discussed in detail in Chapter 4.

⁸¹ For details of all the information Instagram collects, see their privacy policy (Instagram, 2013a).

My involvement with the DMI enabled me to see content made available through APIs as 'digital objects' that can be manipulated or repurposed. For example, *Selfie Portrait* repurposes three kinds of digital object: Instagram photographs, the hashtag '#selfie', and users' biographical descriptions. The original functions of these objects – enabling users to categorize, share and find digital information (the hashtag) or to communicate about their identities (the biographical description) – were repurposed in order to produce new temporary formations of the digital objects within the artwork. The hashtag is the primary digital object that enables these temporary formations to be created through a programmatic command: 'display all images tagged with #selfie'. In this sense, the selfies and the information associated with them were seen as 'data'.

However, as noted earlier in this chapter, one intention for *Selfie Portrait* was to reflect (on) my understanding of selfies as representations of human subjectivities, as opposed to 'just' digital objects or data. In this work, it was helpful to think of them as digital objects, data and representations of human subjectivities. This is perhaps another manifestation of the 'both' or 'and' logic of extra-subjectivity.

Summary

Selfie Portrait re-focused my attention on the production of subjectivities, and the term 'extra-subjectivity', as selfies are representations of selves. I had several intentions in making the work: to present selfie-taking as a shared, techno-social process of producing subjectivities that highlights the tensions between sameness and individuality, exemplarity and exceptionality, structure and agency; to counter Keen's argument that selfies are narcissistic, and to reflect (on) selfies as representations of human subjectivities rather than 'just' digital objects or data, as may be implied by digital methods researchers. These intentions were addressed through the work's expressive properties: its contemplative pace, duration and the aesthetic reframing of selfies outside Instagram. I contend that selfies are events as well as objects, since they take place and are shared temporospatially, which highlights their social, as well as material properties.

The work was displayed on an iPhone fixed to a gallery wall as part of an exhibition, rendering the phone as an art object as well as a ubiquitous everyday device. This highlighted the

different levels of control the artist has over the viewing conditions of web-based work when displaying it in a gallery as opposed to on mobile media. However, I contend that discursive contextualization plays a more significant role than the mode of display in influencing how the work is encountered. Rather than trying to 'control' the contingencies of the work being viewed in multiple settings, I accept this as part of web-based art practice.

Selfiecity, a project led by Lev Manovich, provided an opportunity to compare the collection and re-presentation of large collections of selfies in the contexts of art and media visualization. I suggest that as a digital sociological endeavour, media visualization is oriented towards 'findings', whereas art is oriented towards reimagining the social realm.

Selfie Portrait allowed me to experiment with using the Instagram API, developing methods learned at the DMI Winter School. The personal information and metadata associated with a selfie, some of which is intentionally authored and some of which is not, is part of its materiality and medium specificity. This has copyright implications, as discussed in Chapter 4.

INTRODUCTION

METHODOLOGY

LITERATURE REVIEW

PRACTICE REVIEW

PRACTICE 1

PRACTICE 2

PRACTICE 3

PRACTICE 4

THE COPYRIGHT EPISODE

CONCLUSIONS

BIBLIOGRAPHY

APPENDICES

Context – copyright and digital cultural production

In 2010, David Cameron commissioned Professor Ian Hargreaves to write an independent review of the UK's intellectual property framework, to address the question of whether current laws are fit for purpose (Hargreaves, 2011). According to this, the purpose of Intellectual Property Rights (IPRs) is to 'support growth by promoting innovation through the offer of a temporary monopoly to creators and inventors' (Hargreaves, 2011: 10). IPRs (of which copyright, patents, design rights and trade marks are the major rights) help reduce risks and costs that may be a disincentive to innovate.⁸² This report provides a UK/European perspective, but global debates about the increasing scope and reach of copyright law have been growing for over a decade, with academics such as Boyle (2008) and Weinstock Netanel (2008), and activists such as Lessig (2004; 2007; 2008; 2010)

and Cory Doctorow (2008; 2011; 2014) arguing that copyright law has become oppressive and extreme as a result of developments in digital culture.

In *Free Culture* Lessig argues that the web has radically transformed how culture is made, enabling new forms of competition from a 'more diverse range of creators' who can 'produce and distribute a much more vibrant range of creativity' (Lessig, 2004: 9). Powerful corporations, or 'big media', threatened by this competition, have 'united to induce lawmakers to use the law to protect them' (Lessig, 2004: 9). He distinguishes between commercial culture – 'that part of our culture that is produced and sold or produced to be sold' and non-commercial culture – 'all the rest' (Lessig, 2004: 7). Non-commercial culture – 'telling stories, reenacting scenes from plays or TV, participating in fan clubs, sharing music, making tapes' (Lessig, 2004: 8) – used to be unregulated and was not the focus of the law, which was primarily concerned with commercial creativity. Lessig argues that the Internet has erased the divide between the free (non-commercial, unregulated) and the controlled (commercial, regulated) aspects of cultural production.

⁸² These can include 'lost earnings while writing a book or Research and Development (R&D) investment in drug research' and 'the risk that new products will fail' (Hargreaves, 2011: 11). Moreover, 'once created, innovative output may cost very little to reproduce: drugs or books may be cheaply copied by others' (Hargreaves, 2011: 11).

The oppressive copyright regulations arising from this benefit big media, not individuals who want to engage in 'free' cultural production.

Lessig here sets us a power struggle between individual creators and 'big media'. He implies that because the distinction between non-commercial and commercial culture has been erased, amateur activities are constrained by laws designed to protect the interests of big media. However, it could be argued that this does not sufficiently acknowledge the interests of smaller individual commercial artists, who are damaged by weakened copyright laws. In this research, consideration of the relations between 'commercial' and 'non-commercial' *artists* was useful. By commercial artist, I refer to someone who mainly trades in their copyright and is interested in reproducing their work in the mass media rather than selling originals – for example commercial photographers, photojournalists or graphic designers. A non-commercial artist (although they can make vast sums of money from selling their work) does not provide a commercial service, such as working to a brief for advertising agencies. Instead, their work is self-initiated and generates value through being exhibited and contextualized in a certain

way. The significance of this dichotomy lies both in the power relations between the groups – Richard Prince is not typically sued by corporations, but by individual commercial and fine artists, such as Patrick Cariou and Donald Graham (Kinsella, 2016: n.p) – and in the way that 'authorship' functions differently for them.

In the USA, Fair Use policy offers defences against claims of copyright infringement.⁸³ However, Lessig argues that it is slow, expensive and inadequate:

Judges and lawyers can tell themselves that fair use provides adequate 'breathing room' between regulation by the law and the access the law should allow. But it is a measure of how out of touch our legal system has become that anyone actually believes this. (Lessig, 2004: 187)

⁸³ 'Fair Use' is a US concept; in the UK, we have 'Fair Dealing' copyright exceptions (DACS, 2016: n.p). Although the majority of social media companies are based in the US, users are based across the world. Infringement cases involving the web thus require a careful consideration of applicable jurisdiction and the law.

He suggests that Creative Commons licences offer a way for people to

establish a range of freedoms beyond the default of copyright law. They also enable freedoms that go beyond traditional fair use. And most importantly, they express these freedoms in a way that subsequent users can use and rely upon without the need to hire a lawyer. (Lessig, 2004: 283)

Lessig does not condone commercial piracy – ‘the unauthorized taking of other people’s content within a commercial context’ – but states that other more ambiguous forms of ‘taking’ should be considered carefully before being judged to be wrong (Lessig, 2004: 62). These forms of taking embody principles of building on and transforming existing work rather than simply taking and selling it, and are referred to as ‘remix’ by Lessig, who made the term ‘remix culture’ popular when he founded Creative Commons in 2001 (Navas *et al.*, 2015: 1). Remixing is essentially a form of quotation. Although it originates in quoting in written texts, its dominant form today is in other forms of media:

remixed media may quote sounds over images, or video over text, or text over sounds. The quotes thus

get mixed together. The mix produces the new creative work—the ‘remix.’ (Lessig, 2008: 69)

Aram Sinnreich notes that Lessig’s ‘remix culture’ and Sonvilla-Weiss’s ‘mashup cultures’ (Sonvilla-Weiss, 2010) are based on ‘the observation that the classifications defining traditional cultural *forms* have blurred, and that these forms themselves are now amalgams of other media’ (Sinnreich, 2015: 227, italics in original). Rather than cultural *forms*, some scholars focus on the fact that ‘cultural *actors* themselves no longer occupy fixed roles’, and have attempted to articulate these roles through the terms ‘prosumption’ and ‘produsage’ (Sinnreich, 2015: 227, italics in original).⁸⁴ Others try to capture both aspects, with Henry Jenkins using the term ‘convergence culture’ (Jenkins, 2006), and Sinnreich using ‘configurable culture’ (Sinnreich, 2010). The strategy adopted in *Selfie Portrait* is not one of ‘remixing’ cultural artefacts owned by ‘big media’. As I use images created by Instagram users, the copyright questions the work raises do not turn on the power relations between commercial and non-commercial culture that Lessig describes.

⁸⁴ These terms are discussed in the literature review via Van Dijck, 2009.

Rather, the relations in play are between Instagram, its users and me, raising the question of whether it is ethical to use a fair dealing exemption under the 1988 Copyright, Designs and Patents Act when dealing with large numbers of individuals, who may have different intentions and interests when creating and sharing their work.

By accessing selfies through the Instagram API, I also accessed pieces of metadata associated with them, including user IDs, biographical information and the hashtag #selfie. Thus, the work raises questions about the ownership of personal information as well as images, and whether both should be considered a form of intellectual property. In *Authoring User Generated Content*, Andrejevic asks: 'Why *shouldn't* our personal information be considered a form of intellectual property subject to copyright protection?' (Andrejevic, 2013: 124, italics in original). Whilst original videos, photos, music or text are copyright protected,

what about other forms of user-generated content such as the details of our activity online, our expressed preferences, even our time-space paths throughout the course of the day? These may not meet conventional understandings regarding the expenditure of effort or the creation of expressive

content, but they have surely become an important source of value and information about the world. (Andrejevic, 2013: 124)⁸⁵

At the same time as copyright law is being extended in scope and reach in the digital age, large amounts of personal information are being exploited for commercial gain.⁸⁶ The 'data driven economy', Andrejevic states,

comes to rely heavily on carving out a space for what might be described in legal terms as non-authored information – information that is subject to capture, collection, mining and sorting. The capture and use of this information is predicated precisely on the claim that this information is not 'authored' in the conventional sense, and therefore does not deserve the type of copyright protection mobilized for original and creative works... We may author our emails, but we do not in the same sense 'author' the information about when we send them, how often we check our messages, where we are when we do so, and so on. (Andrejevic, 2013: 125)

⁸⁵ As such, perhaps this personal information is more like a commercial artefact than a selfie itself.

⁸⁶ Such exploitation is only regulated by data protection legislation such as the Data Protection Act, 1998 in the UK or Act 8 of the European Convention on Human Rights, which is enforced in the UK through the Human Rights Act, 1998.

Andrejevic notes that copyright protection may be mobilized once personal information is 'deliberatively collected and stored – at which point it becomes the intellectual property not of those who have created it, but of those who have captured it' (Andrejevic, 2013: 125). Similarly, a post on the Osborne Clark legal blog notes that copyright law protects aspects of the layout, structure or format of databases rather than their contents (Osborne Clark, 2015: n.p). As a consequence, 'copyright protection for databases provides fairly limited protection for the underlying data (unless that data is a literary work that attracts copyright protection)' (Osborne Clark, 2015: n.p). A traditional concept of authorship serves certain discourses that rely on it to designate what is 'not authored', and therefore beyond the reach of copyright protection:

If popular and scholarly discourses have, in the postmodern era, called into question the authority of the author, economic, commercial, and legal discourses are working hard to secure the notion of authorship as a bulwark against the affordances of digital media. (Andrejevic, 2013: 125)

Thus for Andrejevic, the paradox of authorship in the digital era is that

the generation of personal information remains excluded from the realm of authorship proper for all practical purposes, even as its generation is greeted as a form of self-expression, participation, and empowerment – as well as a source of value. (Andrejevic, 2013: 126)

Andrejevic's distinction between authored and 'non authored' information was useful for considering the ethics of accessing selfies *and* metadata through the Instagram API. As he notes,

We can distinguish between two categories of so called 'user-generated content': that which is consciously and deliberately crafted by users... and that captured by applications that monitor user activity, such as details about users' computers, their location, the sites they visit, the links they click on, and so on. The second category of harvested data is not intentionally created by users, and they are often unaware they are generating it. (Andrejevic, 2013: 131)⁸⁷

Selfie Portrait only uses content that is consciously and deliberately crafted by the selfie-takers: the selfies, the #selfie hashtag and the biographical description available on their public profile.

⁸⁷ Although all websites now have to ask users to read their cookie policy and accept that such data is stored and used in a certain way, users may not be aware of the consequences of their acceptance.

I do not make use of personal information that the user may not be aware of having generated, as described in the above quote. Furthermore, I am not harvesting any such data for commercial gain or to monitor activity. Thus, I distinguish my use of metadata from the kinds of uses Andrejevic objects to.

Legal considerations

To explore the legal status of my actions in making this work, I consulted Instagram's terms of use, privacy policy and API terms of use. The terms of use specify what both Instagram and its users are permitted to do with content posted on or through the platform.⁸⁸ The privacy policy explains

how we [Instagram] and some of the companies we work with collect, use, share and protect information in relation to our mobile services, website, and any software provided on or in connection with Instagram

⁸⁸ Instagram gained a significant amount of media attention in December 2012, when they proposed to amend their terms and conditions such that users would have to agree that 'a business or other entity may pay us to display your username, likeness, photos (along with any associated metadata), and/or actions you take, in connection with paid or sponsored content or promotions, without any compensation to you' (Instagram, quoted by Michael Rundle, 2012: n.p). A backlash amongst Instagram users led to the company reverting to their original terms and conditions, as noted in a blog post by Instagram co-founder Kevin Systrom (2012: n.p).

services (collectively, the 'Service'), and your choices about the collection and use of your information.' (Instagram, 2013a)

The API terms of use define the legal use of the Instagram APIs (Instagram, 2014b). After consulting these documents, I understood that under general copyright law, Instagram users own the copyright of their photographs: 'Instagram does not claim ownership of any Content that you post on or through the Service' (Instagram, 2013b). However, to gain a more thorough understanding of the legal risks associated with using them, I sought advice from Own-it, University of the Arts London's intellectual property advice service (see Appendix 2). Own-it offered some initial guidance, but recommended that I obtain further advice from an experienced lawyer, given the complexity of the query. On Wednesday, 28 May 2014, I attended a 45-minute intellectual property 'clinic' with solicitor Angus McLean from London-based law firm, Simmons & Simmons.⁸⁹

⁸⁹ The clinic was provided for free by UAL as part of the Own-it service, which offers support given on a pro-bono basis by local solicitors. The service was discontinued with effect from 22 June 2016.

A diagram of my interpretation of the initial legal advice is provided at the end of this chapter (see Fig. 5.3).⁹⁰

The meeting was audio recorded, and the transcript can be found in Appendix 3. Mr. McLean provided a report summarizing the discussion, which can be found in Appendix 4. The discussion was based around the question of ‘whether the work infringed the copyright of the owners of the Instagram photographs, and if so, whether there were any ways to work around this or whether any defences would be available to (me)’ (McLean, 2014: 1). I also asked for clarification about whether *Selfie Portrait* made acceptable use of Instagram users’ content with regard to the requirements and restrictions referred to in the API terms of use. Mr. McLean stated that the advice given was done so only from a UK perspective, and that the Instagram terms of use are governed by the law of California. As a result, any defences available to me would only apply in the UK.

I was advised

As you are currently accessing photographs through the Instagram API and are displaying them without asking the permission of the photograph takers, you are, subject to any defences that are available to you... infringing their copyright. You are also in breach of Instagram’s Terms of Use and the API Terms of Use. Instagram has given you access to its API and as a result you are bound by the API Terms of Use, which creates a contractual relationship between you and Instagram. (McLean, 2014: 1)

The optimum position to mitigate the risk of copyright infringement would be to access the photographs without going through the API, so that I would not be bound by the API terms of use. If I did not use the API I could link to freely accessible content, which according to recent EU case law is not deemed an infringement of copyright. The European Court of Justice (CJEU) in *Svensson and others* (Case C-466/12) considered whether hyperlinking to copyright protected material on another website infringes copyright.⁹¹

⁹⁰ Subsequent to the creation of this diagram, Silvia Baumgart alerted me to the fact that, according to Attorney General Wathelet, it is immaterial if the content linked to was published without permission of the rights holder (IPKat 2016: n.p).

⁹¹ For a short analysis of the *Svensson* case, see Graham Smith *et al.* (2014). For a summary of recent cases regarding hyperlinking see IPKat (2015), which notes that the *Svensson* judgement ‘perhaps raised more questions than answers.’ Most recently, Attorney General Melchior Wathelet advised the

The case was dependent on the interpretation of Article 3 (1) of the InfoSoc Directive, which states:

Member States shall provide authors with the exclusive right to authorise or prohibit any communication to the public of their works, by wire or wireless means, including the making available to the public of their works in such a way that members of the public may access them from a place and at a time individually chosen by them. (Council Directive 2001/29/EC: Article 3, para 1)

The Svensson ruling depended on whether providing hyperlinks to copyright protected material that is freely available on another website constitutes ‘an act of communication to the public’ (Case C-466/12 *Svensson v Retriever Sverige AB* [2014] All E.R. (EC) 609, para 14). An act of communication to the public would require permission from the copyright holder. The concept of a communication to the public requires ‘two cumulative criteria, namely, an “act of communication” of a work and the communication of that work to a “public”’ (para 16). In paragraph 20 of Case C-466/12, the CJEU held that ‘the provision of clickable links to protected works must be considered to be “making available”

CJEU to depart from *Svensson* (Case C-160/15, opinion of AG Wathelet). For an analysis of Wathelet’s opinion, see IPKat (2016).

and, therefore, an “act of communication”, within the meaning of the provision’ given in Article 3 (1) of Directive 2001/29 (para 20). The CJEU also held that ‘by the term “public”, that provision refers to an indeterminate number of potential recipients and implies, moreover, a fairly large number of persons’ (para 21). Hyperlinking to copyright protected works therefore *does* constitute an act of communication. However, in order for the copyright holder to be covered by this concept of an act of communication, the communication must be ‘directed at a new public, that is to say, at a public that was not taken into account by the copyright holders when they authorized the initial communication to the public’ (para 24). If a hyperlink allows users to circumvent restrictions put in place by the original website owners, such as the requirement to log in or pay to access the content, or if the content has been removed from the original website, it would be considered to be directed to a ‘new public’ and therefore require authorization from the copyright holder.

To summarize, consider this scenario: website (a) publishes a copyright protected article, and website (b) links to this article. If users of website (b) could have accessed the article from

website (a) without restriction, and without the involvement of the manager of website (b), then the manager of website (b) is not infringing copyright, because they are not making the article available to a new public. If users of website (b) could not have accessed the article from website (a) without restriction – i.e. if they would have had to log in, subscribe or pay to access it, website (b) *would* be infringing copyright, because they are making the article available to a new public. The implications of this for me were that if I did not access the selfies through the Instagram API, I would not infringe copyright, as long as the selfies linked to their original location on the users' Instagram page, where they are freely available to the public.⁹²

As stated, using the Instagram API was a key methodological part of the work, so it was undesirable to avoid using it.⁹³ By accessing the photographs through the API, I was bound by

⁹² Any member of the public can access Instagram photographs through third party websites such as Iconosquare.com and Websta.me, without having an account or following a particular user. The exception would be if the user had set their account to private. *Selfie Portrait* does not include images set to private.

⁹³ Although websites such as Iconosquare.com and Websta.me make all Instagram photographs publicly available, they do not provide publicly-available APIs, so photographs cannot be automatically extracted through those sites.

the Instagram API terms of use and subject to a contractual relationship with the service. The Instagram API terms of use state that anyone using the API must

Comply with any requirements or restrictions imposed on usage of User Content by their respective owners. Remember, Instagram doesn't own User Content – Instagram users do. Although the Instagram APIs can be used to provide you with access to User Content, neither Instagram's provision of the Instagram APIs to you nor your use of the Instagram APIs override User Content owners' requirements and restrictions, which may include 'all rights reserved' notices (attached to User Content by default when uploaded to Instagram), Creative Commons licenses or other terms and conditions that may be agreed upon between you and the owners. In ALL cases, you are solely responsible for making use of User Content in compliance with owners' requirements or restrictions. (Instagram, 2014b: n.p)

In addition to this, no one should use the Instagram API 'in any manner or for any purpose that violates any law or regulation, or any rights of any person, including but not limited to intellectual property rights, rights of privacy, or rights of personality' (Instagram, 2014b: n.p).

I was advised: 'If it is not possible or desirable to access the data without going through the Instagram API, you will need

to ask the permission of the copyright holder before displaying the photo to avoid infringement' (McLean, 2014: 1).

As a PhD student engaged in 'research or private study', there is a fair dealing defence available to me under Section 29 (1) of the Copyright, Designs and Patents Act 1988 (CDPA), provided the work I produce is strictly non-commercial and sufficiently acknowledges its source materials.⁹⁴ I was advised that sufficient acknowledgement could be provided by

displaying the Instagram users' user names and/or via a link to the photo as displayed on their Instagram account... It is important to give the acknowledgement equal prominence (e.g. same font size) to the other text that you are displaying as part of the artwork. (McLean, 2014: 2)

The stipulation to display the username at the same font size as the rest of the biographical text was aesthetically and conceptually undesirable. I deliberately chose *not* to display the usernames so as to create a contemplative, uncluttered visual space. Conceptually, not including the usernames was

⁹⁴ The CDPA states: 'Fair dealing with a literary, dramatic, musical or artistic work for the purposes of research for a non-commercial purpose does not infringe any copyright in the work provided that it is accompanied by a sufficient acknowledgement' (Copyright, Designs and Patents Act, 1988: n.p).

important because I wanted to present the images 'outside' Instagram, rather than adopting its language. Not including the usernames was also part of the work's provocation about the acceptability of automatically accessing and displaying other people's images.

I therefore chose not to amend the work, which meant the CDPA defence would not be available to me in the event of a claim of copyright infringement. Even if I *had* been willing to amend the work in order to use the CDPA defence, I wanted to understand what the situation would be if it was not available, since future artworks will not necessarily be made in a research context. Although technically *Selfie Portrait* was produced as 'research', it is also conceived of as an artwork, available online, that may not necessarily be viewed in a research context.

In summary, notwithstanding the CDPA defence, I was advised that by using the API and agreeing to the API terms of use, I was subject to contractual law as well as copyright law. This imposed a higher level of sanction on me than if I was accessing the photographs without the API, and meant that I

would need to seek permission from the selfie-takers to avoid copyright infringement.

Mr. McLean noted that the legal advice given was ‘the black letter law’ and should be ‘balanced against practical considerations and the likelihood of enforcement’ (McLean, 2014: 2). My financial liability for copyright infringement was deemed to be low. An individual whose copyright has been infringed is entitled to an injunction requiring the infringer to take down the content, as well as damages. If copyright had been infringed through *Selfie Portrait*, and I had refused to comply with a take down notice, damages could potentially be claimed to a value ‘equivalent to the amount that you would have to pay for using a photograph in question’ (McLean, 2014: 2). It was not clear how much this would actually be:

whatever financial damage there is, is probably going to be appointed to some sort of – the amount you’d have to pay them in return for consent to use their photograph which, depending on whose photograph it is would probably be a range. If you’re using a celebrity’s photograph then it may be that they’re a bit more sanguine about how likely they are to give consent, and they might ask for more money than an individual user or a non-celebrity, and a non-celebrity – I don’t know what sort of money you would have to

pay to get them to agree to use their photo. (McLean, 2014: 6)⁹⁵

The fact that the discussion did not address the value of the metadata associated with the photograph underlines Andrejevic’s point that in legal discourse, ‘non-authored’ information is not considered to ‘deserve the type of copyright protection mobilized for original and creative works’ (Andrejevic, 2013: 125).

Following the IP clinic, I sought further written clarification from Own-it about the Instagram terms of use and my interpretation of the legal advice given. In particular, by agreeing to the terms of use, I understood that users grant Instagram ‘a non-exclusive, fully paid and royalty-free, transferable, sub-licensable, worldwide licence to use the Content that you post on or through the Service, subject to the Service’s Privacy Policy’ (Instagram, 2013b). This means that once a user has posted a photograph, Instagram has the right to sublicense it to any company for a fee without paying

⁹⁵ Theoretically, damages may be available for a breach of privacy, but I was advised that an expectation of privacy would be difficult to claim, given that the selfies are posted publicly on Instagram. If Instagram received a complaint about the work and felt it had a negative impact on its users, they could terminate my account, but it was suggested this was unlikely (McLean, 2014: 2).

the user (Law Offices of Craig Delsack, LLC, 2012: n.p).⁹⁶ I was uncertain whether this meant that if I paid, I could use an Instagram photograph 'freely'. I sought clarification from Own-it about this, and their response can be found in Appendix 5. They advised that I would require a sublicense from Instagram to use images for purposes outside 'normal browsing', but they could not comment on the terms on which such a sublicense might be granted, or whether I would have to pay for it:

This would be a commercial matter between you and Instagram. You also ask whether this would enable you to use the Instagram images 'freely'. If by this you mean for any purpose whatsoever, then that would be also dictated by the terms of the sublicense granted to you by Instagram, which in turn would be limited by the privacy settings of the copyright owner, the Contributor. (Appendix 5: 6)

The permission bot

The issue of permission seeking prompted a new line of enquiry in my practice: an attempt to develop a permission

⁹⁶ Reading this article was useful in that it led me to seek clarification from Own-it, but as it interprets the terms and conditions from a US perspective, it was not as relevant as the interpretation provided by Mr. Mclean.

bot that would automatically request permission to use any selfie included in the work. I saw potential for the bot to critique the Instagram API terms of use, and to become a useful application for individuals wanting to use images accessed through the Instagram API. I asked Mr. McLean if Instagram was likely to see the bot's activity as spam, but was advised that this would be self-contradictory, as Instagram requires me to get permission for the use of images. I was advised that the permission bot would have to work such that photos for which no permission had been granted were excluded from *Selfie Portrait*.⁹⁷ Arthur and I applied for an API key to build the permission bot, stating:

The application is an artwork that simply examines how people who post images tagged 'selfie' on Instagram describe themselves. It can be viewed at <http://otheragents.net/selfieportrait/index.html>. The intention is to use the comment post endpoint to ask permission from users whose images will be included. This work has been made for the purpose of PhD research and is non-commercial (Webb, C., online application, 27 February 2014).

However, the request was denied:

⁹⁷ This was not practically possible, so this consent mechanism would perhaps have been legally redundant, even if it had been implemented.

Hello,

Thank you again for your interest in the comments POST endpoint. We have reviewed your application and have determined that your request does not comply with our requirements for usage of this endpoint. Please note that we allow access to this endpoint solely for the following use cases:

1. A business requesting rights to media objects from the Instagram Community in order for the media to be used for display outside of Instagram.
2. A business providing customer service to members of the Instagram Community by interacting through comments.
3. A business responding to members of the Instagram Community that participate in a specific reward or coupon campaign.

Since your app doesn't appear to be serving any of these uses case [sic], we're unable to grant access to the endpoint.

Thanks,

Instagram Platform Team (Instagram, 2014d)

Instagram is prepared to permit businesses, but not individuals, to request media rights for user content demonstrates that the terms of use do not always serve the interests of the user. By denying me the ability to automate a request for permission to the use of the images, Instagram was (perhaps inadvertently) reducing my ability to comply with their own terms of use.

Ethical considerations

I was advised that the black letter law should be weighed up against practical considerations and likelihood of enforcement. However, my decisions about what constitutes a fair use of the selfies were made on the basis of ethical reasoning and artistic intent as well as a consideration of legal 'risk'. Sinnreich suggests that the legal and regulatory apparatuses governing 'configurable' cultural forms and practices are 'hopelessly mired in the expectations, economics, and ethical frameworks of the mass media era'⁹⁸

⁹⁸ Sinnreich refers to both configurable technologies, 'constituted by global, digital networked communication systems', and configurable culture, which include examples 'from mash-ups to remixes to machinima' (Sinnreich, 2010: 8).

If I was a business requesting media rights or providing a customer service, I could automate requests for permission, but as an individual artist this is not permissible. That

(Sinnreich, 2015: 240). As a result, 'people who are not lawyers are developing their own ethical frameworks to distinguish between legitimate and illegitimate uses of reappropriated work in their cultural environments' (Sinnreich, 2015: 240). He notes that

a range of scholars have observed a variety of different ethical considerations brought to bear by various communities of practice on the configurable cultural forms they produce and reproduce. These include aesthetic beauty, self-expression, innovation, labor, commercial valence, legality and power relations... these and a handful of other ethical criteria are consistently invoked by the general public in their own efforts to develop a workable ethical framework for engagement with digital media and communications. (Sinnreich, 2015: 229)

In 2006 and 2010, Sinnreich and colleagues conducted two studies that surveyed American and English-speaking adults on 'their general opinions of configurable cultural practices'. The results of these are discussed in a paper by Sinnreich, Mark Latonero and Marissa Gluck (2009), Latonero and Sinnreich (2014) and Sinnreich (2015). Responses to open-ended questions in the surveys were examined for 'underlying ethical frameworks deployed by respondents to establish the legitimacy or illegitimacy of such practices'

(Sinnreich, 2015: 229). Eleven ethical themes emerged from the data (see Fig. 5.2). I drew on these to inform the process of weighing up my ethico-legal position in relation to *Selfie Portrait*. Some of the above themes chimed with my own considerations, and provided a benchmark against which to measure them.

Ethical dimensions for configurable culture		
Unethical	Criterion	Ethical
For-profit	<i>Commercial</i>	Nonprofit
Unpermissioned	<i>Legal</i>	Permissioned
Pretension	<i>Authenticity</i>	Referenced
Unoriginal	<i>Innovation</i>	Original
Easy	<i>Labour</i>	Hard work
Bastardization	<i>Moral</i>	Homage
Rupture	<i>Continuity</i>	Evolution
Useless/harmful	<i>Use value</i>	Fun/beneficial
Ugly	<i>Aesthetic</i>	Beautiful
Undermining	<i>Power relations</i>	Empowering
Meaningless	<i>Self expression</i>	Expressive

Fig. 5.2 Table 'Ethical Dimensions for Configurable Culture', adapted from Sinnreich (2015: 230).

Commercial

Sinnreich observed that respondents often saw profiting from appropriated content without paying for its use as unethical (Sinnreich, 2015: 229). He notes that this emerging ethic diverges from the letter of US copyright law, which 'considers most unauthorized appropriations of content to constitute infringement, irrespective of a for-profit or nonprofit intention or effect' (Sinnreich, 2015: 229). In my case, the CDPA defence *would* have required that the work be non-commercial, which reflects the fact that UK Fair Dealing legislation is different

from US Fair Use. These differences notwithstanding, it is ethically important to me that I do not profit from others' materials without paying for them. This is in contrast to the Instagram photographs used in Richard Prince's 2014 exhibition *New Portraits* at Gagosian Gallery, New York.

Here, the artist appropriated Instagram photographs without permission, scaled them up, made some modifications to the comment threads, and printed and hung them in the gallery (Gagosian, 2014). The prints were later sold at the New York Frieze art fair, for up to \$100,000, as noted by Rob Price (2015: n.p).⁹⁹

Legal

Although the survey respondents did not exclusively draw on an ethical framework rooted in copyright law, legality was a central element in their 'ethical calculus'. There was a particular focus on permission seeking and whether the work would adhere to legal regulations, 'specifically the notion... that permission from the owner or originator of a piece of content is a requisite element for the ethical use of that

⁹⁹ Various news sources reported that the works had sold for up to \$100,000 (Price, 2015: n.p; Hannah Jane Parkinson, 2015: n.p), whilst some Instagram users specifically claimed they had sold for \$90,000 each (Missy, 2015: n.p; doedeer, 2015: n.p). Some of the images were taken from the Instagram feed of Suicide Girls, an online pinup site and message board. In response, the Suicide Girls began selling the same images for \$90 and donating the profits to the Electronic Frontier Foundation (Missy, 2015: n.p). Prince's work and the responses it provoked thus highlighted continuing contestations over the ownership of online images, and the power relations at work between individuals or organizations with high degrees of symbolic capital and 'normal' people.

content' (Sinnreich, 2015: 230). Permission seeking was a significant factor I considered when weighing up the ethics of *Selfie Portrait*, both in a legal and research ethical context (as discussed below in 'Research Ethical Considerations').

I deemed that the likelihood of the enforcement of law was low, particularly given how unlikely it is that the selfie-takers will realize their images are included. Although it is potentially unethical to take a 'what they don't know won't harm them' attitude, in this case I felt the users' lack of conscious participation in and awareness of the work reduced the potential for the work to *either* cause harm *or* confer a benefit. This does not mean that using other people's work without permission is ethical in principle, but rather that such uses need to be considered in their specific contexts.

Thinking beyond the black letter law, I asked Mr. McLean whether it was ethical to wait to receive complaints of copyright infringement and then respond immediately, rather than actively making provisions to avoid infringement.¹⁰⁰

¹⁰⁰ In the interview I used the term 'moral' rather than 'ethical', but on reflection, 'ethical' is more appropriate, since it implies standards imposed by my social and institutional contexts, rather than on a personal sense of right

He advised that this was a decision for me to make, but suggested the availability of the fair dealing exemption of section 29 (1) CDPA may 'put a gloss' on my decision. As noted above, this exemption was not available to me, and even if it had been, deploying a defence on the grounds that *Selfie Portrait* was 'research' seemed disingenuous, since it is also conceived of as an artwork that may not necessarily be viewed in a research context.

In the first iteration of *Selfie Portrait* the selfies did not link to the users' profile pages on Instagram, as I wanted to make a work without any interactive aspects, in contrast to *Flickr Nude* or *Noodle Descending a Staircase* (see Practice 3). Considering the legal advice, I decided that linking to users' profile pages was both legally advisable and (more importantly) ethically responsible, so I added this feature to the work. This demonstrates how the artwork was modified in light of my growing understanding.¹⁰¹ This modification had practical and conceptual implications. Practically, if the work were

and wrong. For a brief overview of the distinction between ethics and morality see Carneades.org (2015: n.p).

¹⁰¹ This chimes with Ruthellen Josselson's statement about good research, which is 'conducted inductively, modifying procedure in light of growing understanding' (Josselson, 2007: 557).

displayed in an exhibition setting, a device such as a mouse enabling the viewer to click on the links would be needed to avoid infringing copyright.¹⁰² As a result, the work could no longer just be shown as a projection, for example.

Conceptually, the links created a more open experience for the viewer, who could go 'in and out' of the work to visit Instagram.

Labour

Sinnreich suggests that the notion of labour often has an impact on whether an act of creative reappropriation is seen as ethical or not. 'Specifically, easier mixes, mashes and hacks are insufficiently original to be accorded respect, while more challenging or taxing appropriations may achieve legitimacy' (Sinnreich, 2015: 236). This notion of labour as expenditure of effort or technical mastery is not part of my ethical calculus. Rather, I was concerned with whether I was complicit in exploiting the 'labour' of the production of subjectivities, as posited by Gram (2013).

¹⁰² I sought clarification on this during a follow up IP clinic, and was advised that it was necessary to give the audience the ability to click the links in order for the work not to infringe copyright.

Gram suggests that selfies are a form of labour under capital – they are ‘the product of work, both on the body and on the representation of the body’ (Gram, 2013: n.p). I contend that *Selfie Portrait* is not complicit in the exploitation of this kind of labour, since it does nothing to encourage the production of selfies and is not ‘part of’ the social media attention economy. The artwork and the thesis highlight rather than reproduce the exploitative aspects of the production of selves online.

Morality

Sinnreich notes: ‘A work that pays homage or does justice to its source may be perceived as legitimate, whereas one that disrespects, insults or bastardizes the original may be seen as illegitimate’ (Sinnreich, 2015: 234). This criterion chimed with my artistic intentionality not to ‘judge’ selfies as simply acts of narcissism (see Practice 4). Although I did not seek permission from the selfie-takers, there are certain characteristics of the work that balance its ethics: I do not make use of any personal information the user may not be aware of having generated; I do not claim the images as my own; I do not make money from the images; I try to ‘do justice’ to the selfies through the aesthetics of the artwork; I do not include any

images that are marked as ‘private’. The fact that the images are tagged #selfie suggested to me that the selfie-takers were unlikely to have high expectations of privacy in relation to these images. Saltz asserts that the primary purpose of selfies is ‘to be seen here, now, by other people, most of them unknown, in social networks. They are never accidental: Whether carefully staged or completely casual, any selfie that you see had to be approved by the sender before being embedded into a network’ (Saltz, 2014: 2). Saltz’s observation is true for the most part, although there may be cases where selfies are taken under duress, or contain images of people in the background who are not aware they have been photographed. For example, Jonathan Jones notes that there was a case of a selfie taken on Brooklyn Bridge, which inadvertently captured a man about to commit suicide (Jones, 2013: n.p). However, since the use of hashtags does not prove that a user understands Instagram’s privacy policy, I would not use this assumption alone to justify the use of the selfies without permission.

Research ethical considerations

Selfie Portrait prompted *research* ethical considerations as well as the broader ones outlined above. Ruthellen Josselson's work on the ethics of narrative research was useful for thinking about my use of 'selves' or subjectivities in this PhD. For Josselson, an ethical attitude towards research involves adopting a stance that considers

how best to honor and protect those who participate in one's studies while still maintaining standards for responsible scholarship. Like issues of ethics in life, often there are contradictory goods, and an ethical stance involves taking responsibility for choosing among them, minimizing harm. (Josselson, 2007: 538)

In narrative research there are both explicit and implicit 'contracts' between a researcher and a participant. The implicit contract is determined by what both parties think constitutes respect and compassion (Josselson, 2007: 539). The explicit contract is often realized through the consent form, which usually says that the participant is willing to take part in the study and is free to withdraw participation at any time (Josselson, 2007: 541). Josselson states that 'consent has to be regarded as a continuing process, and the participants

must be accorded the human right to bestow or withdraw the use of their material' (Josselson, 2007: 544). Since I did not ask for permission to use the selfies, there is neither an explicit nor implicit contract between myself (the researcher), and the 'participants' (the selfie-takers). The only means of them expressing discomfort or dissatisfaction would be by requesting that their material is removed, and there is no obvious means for them to do this. I am therefore unable to reach a shared understanding of what constitutes respect and compassion. Seeking permission would be a step towards this, but it was impossible to do manually, and not permissible (by Instagram) programmatically. I therefore had to engage in ethical reasoning that considered the possible effects the work might have on the selfie-takers, and be prepared to deal with the consequences in an ethically sound way.

Whereas in a legal context, 'risk' is conflated with the likelihood of the enforcement of the law, in a research ethical context, 'risk' is conflated with the potential for harm to participants. According to the UAL Code of Practice on Research Ethics:

The principle of justice obliges the researcher to distribute equally the risks and benefits of participation in research. Any risks to persons participating in research must be weighed against any potential benefits – to the participants or the researchers, and also the wider benefits to society of the knowledge gained. (UAL, 2015/16: 92)

The selfie-takers' lack of conscious participation minimizes the risk of both harm and benefit, and as such, the consequences of using the selfies is difficult to assess. However, overall, I contend that the benefit to the art and research community of me making and reflecting on this work outweighs the unlikely possibility that someone might become distressed as a result of it. If this should come about, I would remove their image from the work immediately, seeing this as necessary as a matter of both research ethics and my social responsibility as an artist.¹⁰³

¹⁰³ I was guided here by Josselson: 'I believe that the benefit science can derive from studying whole human beings in context outweighs the highly unlikely possibility that someone might become severely distressed as a direct result of participation. If such an eventuality should come about, I would think it morally necessary that the researcher offer that person consultation (even pay for his or her psychotherapy) to try to contextualize whatever felt insulting or wounding and help that person recognize that all truths are partial and situated and that researchers distort unintentionally or misunderstand' (Josselson, 2007: 560). This also accords with the UAL Code of Practice on Research Ethics, which states that researchers should comply with

The discussion in this chapter shows that as Marcus Boon suggests, it is necessary to think beyond a framework of 'right, property, ownership and copyright', and to consider ethics in the context of practice:

It is a matter of value and competence, rather than right. One does not need to own in order to practice; if anything, a practice owns us, reshapes and reconfigures us, and inserts us in a dynamic collectivity. Practice has its own ethics—and this ethics is worked out in the configuration of practice itself, and in relation to other practices and practitioners. (Boon, 2010: 247)

It was certainly my experience that the ethics of practice were worked out in the configuration of the practice itself, and in relation to other practices and practitioners.

Summary

The legal advice I sought to clarify whether *Selfie Portrait* infringed copyright covered my legal position and any defences available to me. I was advised that, because I accessed the images through the API, I was infringing

'the principle of neither doing, nor permitting, any foreseeable harm as a consequence of research activities' (UAL, 2015/16: 92).

copyright and breaching Instagram's terms of use, and would need to ask permission of the copyright holders to avoid infringement. The optimum position to mitigate the risk of copyright infringement would be to avoid using the API, so that I would not be bound by its terms of use. If I did not use the API, recent changes in European copyright legislation meant I would not infringe copyright as long as the selfies linked to their original location on Instagram. As a PhD student, there was a fair dealing defence available under the Copyright, Designs and Patents Act 1988, provided the work was non-commercial and sufficiently acknowledged its source materials. However, 'sufficient acknowledgement' meant including users' usernames in the work, which I did not want to do for aesthetic and conceptual reasons, which meant the CDPA defence was unavailable to me.

I drew on Andrejevic's distinction between authored and 'non-authored' information to consider the ethics of accessing the metadata associated with the selfies. As I only use personal information that is consciously created and shared, and do not use it to monitor user activity or for commercial gain, I distinguish my use of non-authored information from the kinds of commercial uses he objects to.

I was advised to balance the 'black letter law' against practical considerations and the likelihood of enforcement. However, my decisions about what constitutes a fair use of the selfies were made on the basis of ethical reasoning and artistic intent as well as a consideration of the law.

This ethico-legal approach is understood in the broader context of online communities and individuals who have begun to develop their own ethical frameworks for determining legitimate uses of other people's cultural productions in the face of a legal and regulatory framework that is not equipped to deal with the affordances of digital cultural production.

My request to develop a permission bot was denied by Instagram on the basis that it did not comply with their API terms of use. This demonstrates that these terms of use are not equipped to deal with the affordances of digital cultural production. Furthermore, they do not always serve the interest of the user, and in this case even reduced my ability to comply with Instagram's own general terms of use.

I drew on Ruthellen Josselson to consider the *research* ethical considerations the work raised. Since I did not seek permission to use the images, I could not reach a shared understanding with the selfie-takers of what constitutes respect and compassion. I therefore had to engage in ethical reasoning to assess the consequences of the work on the people whose selfies it incorporates. I contend that the benefits of making the work as a contribution to the artistic and research community outweighs the potential harm it may cause, since the selfie-takers are unlikely to be aware of or become distressed by the inclusion of their selfies in the work.

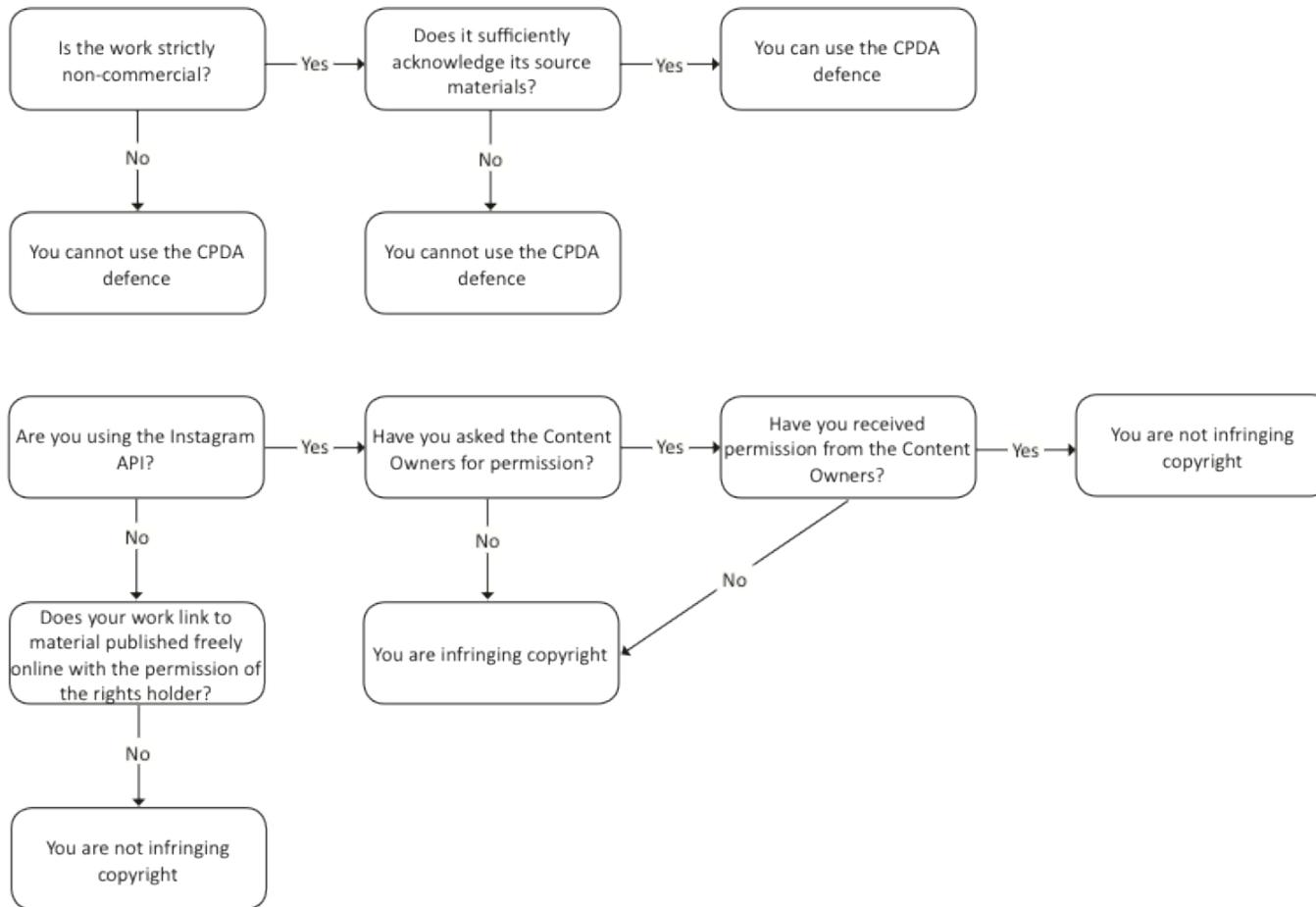


Fig. 5.3 Diagrammatic summary of legal advice.

INTRODUCTION
METHODOLOGY
LITERATURE REVIEW
PRACTICE REVIEW
PRACTICE 1
PRACTICE 2
PRACTICE 3
PRACTICE 4
THE COPYRIGHT EPISODE
CONCLUSIONS
BIBLIOGRAPHY
APPENDICES

This practice-led research is an extended investigation into the complexities of artistic authorship under the production conditions of the web. It offers several significant contributions to knowledge: the introduction of the term 'extra-subjectivity' to explore the artist's authorial agency, an extended account of the legal contexts surrounding web-based art practices that are entangled socially, ethically and legally with the web's evolving production conditions, the presentation of digital methods and ways they can be repurposed for art practice, and the development of a distinctive approach embodied in the artworks. The conclusions presented below are a series of final reflections on these areas of contribution.

Extra-subjectivity and authorship

The neologism 'extra-subjectivity' took on varying degrees of conceptual stability throughout the research, particularly as my understanding of 'subjectivity' shifted. Its usefulness waxed and waned, and the wrangle over its efficacy continued from the very beginning to the very end. As noted in the thesis, with reference to Bruno Latour's reflections on ANT, at

times it felt there were three problems with 'extra-subjectivity': 'extra', 'subjectivity', and the hyphen. Despite its problems, however, the term has proved to be a generative tool that offers a way for myself and other researchers in the future to probe the complexities of authorship in web-based art practice. It has come to imply a form of production in which 'extra' subjectivities, entities and processes can enter the authorial sphere of the artwork with varying degrees of authorial intentionality. As a result, the artwork's ultimate manifestation often exceeds the artist's intentionality, implying a form of 'surplus'. Thus, the 'surplus' connotations of extra-subjectivity were particularly useful when exploring the relations between the artist and other agents that can contribute to an artwork's production. It is clear that many non-human agents are involved in cultural production on the web, where digital objects and devices, algorithmic processes, and automation abound. However, I have rejected ANT's anti-essentialist approach to agency, as employing a single explanatory frame when interpreting human and non-human agents in my work was not desirable; it *was* necessary to shift registers when considering human and non human entities, since the former have different 'rights' that needed to be

considered when investing a socially responsible ethic into my practice.

The degrees of intentionality involved in extra-subjective authorship depend on the nature of the artwork, the role each 'author' takes in its production, and whether it invites viewers to knowingly author component parts. In *Flickr Nude or Noodle Descending a Staircase*, individuals can knowingly contribute to the overall artwork, and thus the work produces individually authored 'results' or outputs. *Selfie Portrait* does not have 'results' in the same sense, as here individuals author component parts (selfies) without knowing they are being incorporated into the work. Different legal and ethical implications ensue, depending on these variants, as is discussed below. Extra-subjective authorship *could* describe any multifarious form of authorship, but here it has been used to describe a techno-social form of production specific to the web.

Extra-subjectivity is characterized by a 'both' or 'and' logic, which reflects the theoretical armature that evolved during the research. According to this armature, the process by which a person becomes a subject is experienced in a

culturally regulated social sphere. The structures of this sphere have the potential to both enable and constrain the subject, who is both productive and produced. Following this, 'extra-subjectivity' implies that the artist can operate on an individual *and* a collective basis, be productive *and* produced, and be potentially empowered *and* exploited.

In practice, extra-subjective authorship can involve producing and apprehending a surplus of material that is both a result of the artist's intentionality, and of something that exceeds it. In the early computer-generated text works, the computational generation of material that was 'beyond' me, both in its quantity and unpredictability, created a distancing effect between my intentional inputs to and the unintentional outputs of the systems I had inaugurated. Although there was a shift in my practice away from offline computational processes, generativity has remained a feature throughout, playing a significant role in creating the playfulness and humor that characterizes my work. As the techno-social production conditions of the web continue to change, generative methods deployed in art practices will also continue to change, reflecting back these production conditions and the possibilities they enable.

As well as 'extra-subjectivity', the terms 'authorship' and 'agency' presented a terminological wrangle. At the end of the research, they remain contestable, slippery, and highly entangled. This thesis traces a shift from wanting to subvert my authorial role, to embracing it as part of my artistic agency. Initially, I saw using computational processes as a way of avoiding responsibility for what the work 'produced'. I thought that by deferring authorial control to a system, I could claim that the work wasn't 'made by me', and this seemed to offer a kind of artistic freedom. However, whilst computational generativity loosened the grip of authorial control, I found that my intentionality remained fully intact, even when the artistic outcomes exceeded my intentions. Furthermore, I understood myself as *accountable* for the works and identifiable as their primary author. Although I do not 'control' the images that appear in *Flickr Nude or Noodle Descending a Staircase* and *Selfie Portrait I am* responsible for ensuring that the use of other people's images is undertaken with an appropriate consideration of the work's ethico-legal implications. My agency is enacted through the intentional construction of my lack of control, and the ways I account for this as the artist by reflecting on, talking and writing about,

and exhibiting the works. Ultimately, claiming authorship over my artworks, or negotiating how my authorship should be expressed, is an enactment of my agency.

I have come to see the assertion of my 'proper name' as playing an inevitable, necessary, even desirable role in the existence, circulation and reception of my works. On one hand I acknowledge that there are many subjectivities, entities and processes that contribute to their production. On the other, it is important (to me) for the works to signify as 'by' Charlotte Webb, because they are part of the production of my subjectivity and identity as an artist and researcher, and because I understand myself to be accountable for them.

In an interview with MK Harikumar, Alan Kirby states that digimodernist authorship is

plural, social, and anonymous... distributed across varying levels of decisiveness, an unknowable number of contributors, and an unpredictable range of locations. The site of a swarming and uncontrollable creativity and energy, it seems ubiquitous, dynamic and acute, and simultaneously nowhere, pseudonymous and untraceable. (Kirby, quoted in Harikumar, 2009: n.p)

My research has shown that although the artworks are plural, social and involve varying levels of decisiveness (which I refer to as authorial intentionality), the people involved in their production are more 'knowable' than Kirby implies. By programmatically accessing and using images from social media platforms, the numbers and locations of contributors *are* knowable, as this information is easily calculable or included in the images' metadata. The contributors are absolutely *not* pseudonymous and untraceable, though they may be unmanageable in number. This implies that a focus on ubiquity, pseudonymity and untraceability might actually eclipse the artist's ethical accountability to the people whose productions are included in their work. Extra-subjectivity thus implies *more* accountability – there are more subjectivities involved, so more care needs to be taken.

Initially, my transition towards the web instilled a desire to resist the category 'artist' and join a broader field of cultural production independent from the validating mechanisms of the art system. I saw the web as a terrain in which I could hybridize or operate between various modes, such as 'artist', 'prosumer' and 'user'. Acknowledging the tensions between these modes and the identities they signify was an important

part of coming to terms with my agency as an artist. Having undertaken the research, I am more willing to recognize myself as an artist engaging critically with the web within a specific field of knowledge and expertise. The desire to operate 'outside' the field of art fell away as I realized that being engaged with relevant institutions and artists who define the field provided a meaningful context for my practice. Concurrently, I realized that the web does not offer refuge from the conventions of validation, but imposes different ones. Presenting an artwork on Tumblr rendered it subject to the conventions of likes, reblogs and comments. The artist's agency is always enacted in relation to a validating structure, whether it is the art system or the logics of a social media platform. The 'art' is to understand, negotiate and mobilize across these structures, rather than be defined or absorbed by them.

The recursive relationship between structure and agency presented in sociological theory informed how I see the web as the medium for and outcome of my practice, which entails a recursive relationship between technological infrastructures (including those established by me 'as' the artworks, and those that the artworks appropriate), and processes of

human social interaction. I thus understand my art practice as part of the human communicative part of the web that reproduces its technological structure. To put it another way, the web acts on my practice and my practice acts on the web.

Extra-subjective labour and appropriation

Discussions about how capitalist society and corporate companies extract value from techno-social activities performed by people online also provided a context for the research. Whilst I acknowledge that day-to-day activities such as creating online images, blogs or other content, and interacting on social media sites can be rendered economically valuable, I want to hang on to a distinction between these kinds of activities and reflexive art practice, from which capital cannot extract value by the same processes. As Tiziana Terranova puts it, 'The Internet does not automatically turn every user into an active producer, and every worker into a creative subject' (Terranova, 2000: 35). This is, of course, not to say that artistic activity is not commodifiable at all – as artistic (and academic) reputations can be and are still commodified.

Current discourses about the production of subjectivity in digital culture are often framed by debates about immaterial labour, which are invested with the legacy of Marxist thinking. This post-Marxian orientation, in which capital is seen to extract value from *all* social relations, was something I attempted to come to terms with throughout the research. Although it usefully highlights the potential for very real forms of exploitation, I remain resistant to the ways in which post-Marxian thinking minimizes forms of agency outside capitalism. Olga Goriunova seems to offer a more hopeful vision when she argues it is important to re-think freedom from outside the post-Marxian and liberal theoretical framework in order to see what is actually taking place in culture and art that can 'extend and disrupt the dominant modes of operation' (Goriunova, 2012: 29). Engaging with this discourse posed a gnawing question of whether I am complicit in the exploitation of people's affective labour by appropriating social media content. Although my artworks incorporate the labour of people who produce their subjectivity by creating and sharing images on social media platforms, they, along with this thesis, highlight rather than reproduce the exploitation of this labour. Whilst it is

impossible to operate completely 'outside' capitalism, I see art practice as offering a chance to stand back from and reflect on its effects. Just as varying degrees of authorial intentionality can exist within the authorial sphere of my works, varying degrees of labour can too. My own and Arthur's labour in producing and accounting for *Selfie Portrait* was almost certainly greater than the labour involved in producing an individual selfie (though perhaps not greater than the collective labour involved in selfie-production). As with agency, failing to 'shift registers', as a Latourian might, when thinking about my own labour in relation to that of others was inappropriate. Just as laying claims to authorship is an enactment of my artistic agency, so too was laying claim to the labour of producing the artwork.

The appropriation of other people's cultural productions raised the question of whether there has been a paradigm shift from the appropriation strategies adopted by the Pictures Generation artists of the 1980s to those adopted in current web-based practices. In light of the 'de-differentiating forces' (Andrejevic, 2013: 125) of the web, which have problematized the distinction between mass and interpersonal communication and amateur and professional

cultural production, there *has* been a paradigm shift in the nature of appropriation. It is no longer a discipline-specific gesture enacted by a group of artists with the intention of defining an historically contingent form of post-modernist criticality. Rather, it is a gesture enacted by a broad range of cultural producers – artists and non-artists alike. Web-based appropriation often involves taking user-generated material on commercial and social networking sites rather than just mass media imagery or artworks circulating in the art system. As demonstrated through my own and other contemporary artists' work, web-based appropriation can be undertaken programmatically. As with generativity, appropriation is an artistic operation that shifts in light of techno-social production conditions.

The concept of extra-subjectivity can perhaps be extended to social media platforms themselves, which could be seen as forms of extra-subjective authorship, since they are authored systems that draw many subjectivities into their authorial sphere. The 'results' these systems produce are *representations* of the production of these subjectivities, which recursively re-produce the system. It was not in the scope of the research to fully explore the processes by which

representations of subjectivity are commodified. Rather, the artworks offer critically reflective distance from social media platforms, adopting some of their language while remaining outside them.

Ethico-legal considerations

The 'Copyright Episode' that followed the production of *Selfie Portrait* offers an extended account of the legal contexts surrounding web-based art practice. By documenting my own work and sharing case studies, I have demonstrated that artists face distinct ethico-legal issues when using the web as a medium and location for their practice. Artists accessing user-generated content through social media APIs are subject to their terms and conditions as well as copyright law.

Understanding social media terms of use is thus necessary for critically engaging with the ways platforms exercise control over the artist's freedom to produce work. I have demonstrated, through practice, that the current legal and regulatory framework is not always well equipped to deal with the affordances of web-based art. Instagram denied my request to develop a permission bot on the basis that it did

not comply with their requirements for usage of the API. If I was a business requesting media rights or providing a customer service, I could automate requests for permission, but as an individual artist I cannot. Instagram's API terms of use *reduced* my ability to seek permission from users, in compliance with its own general terms of use.

In light of a legal and regulatory framework that struggles to 'keep up' with changing practices of web-based cultural production, artists need to engage in ethical reasoning that considers the possible effects their work might have on others, and be prepared to deal with the consequences in an ethically sound way. Recourse to fair use policy and the use of materials licensed under Creative Commons licences may be useful for artists, but as I have demonstrated, both may impose undesirable aesthetic and conceptual limitations, and defending the right to use the former may be prohibitively expensive. Questions of ethics and copyright are highly context-specific. Whilst useful as a case study, my assessment of the ethics of *Selfie Portrait* pertains to that work only, demonstrating that ethico-legal issues need to be considered on a case-by-case basis. In future works, it may be inappropriate to access and display images through an API

without permission, depending on the nature of the work and its audience. The use of the #selfie hashtag implies a certain ethical context - if a work presented Instagram images tagged with #schizophrenia for example, or something else associated with potentially vulnerable users, the ethical considerations for the work would be different.

Current discourses around copyright have emphasized the way the web has enabled large numbers of amateur producers to create new competition for 'big media'. The discourse is framed in terms of power relations between (often amateur) individuals and powerful corporations. Prominent news stories have highlighted copyright disputes between famous 'fine' or 'non-commercial' artists and 'commercial' artists, as demonstrated in the case of Richard Prince and Patrick Cariou. However, forms of artistic appropriation that involve user-generated content from social media APIs complicate these dichotomous power relations, expanding them to include the artist, the platform and a multitude of users, who may have different intentions and interests when creating and sharing their work.

In a legal sense, the author function serves to identify authors in order to regulate the circulation and commodification of their work. As Andrejevic (2013) notes, legal discourses also rely on a traditional concept of authorship to designate what information is 'non-authored', and therefore beyond the reach of copyright protection. Taking a digital methods approach to selfies, I have shown that an artist appropriating them has a responsibility to consider the implications of using both the 'authored' material (selfies) and 'non-authored' material (metadata) that they contain. Oppressive copyright regulations can clearly pose a threat to artistic freedom in the digital age, and questions about the protection of personal information as intellectual property are pressing. Challenges to conventional notions of authorship have been part of an ideological project in the development of web-based art practices, and this is to be celebrated. However, when faced with issues of copyright and ethical accountability, particularly in relation to *Selfie Portrait*, I felt it *was* important to re-assert my authorship. I perpetuated the author function by accepting my authorial role in order to invest a socially responsible ethic into my practice. For me, authorship is thus

a question of responsibility as well as 'ownership', which is why ethics are as important as the law.

Richard Prince's recent appropriation and selling of other people's Instagram photographs demonstrates that the art system carries on being invested in certain kinds of reputations that can be commodified. The questions 'Who made this? Who owns this? Who profits from this?' still matter in this context, and the economic value of artworks is contingent on the symbolic capital of the artists that make them – even if the making appropriates the cultural productions of others. My emphasis on responsibility rather than ownership, however, allows me to retain at least a degree of critical distance from the commodification of the artist's name. For commercial artists like photographers or designers who make money from reproductions of their works, the 'original' artwork is not paramount. For non-commercial artists whose work is self-initiated and generates value through being exhibited and contextualized in a certain way, the 'original' *is* paramount and they make money predominantly out of their reputation (authorial signature), rather than reproductions. Copyright law thus functions differently for the commercial and the non-commercial artist.

For the commercial artist, copyright law 'incentivizes' production by protecting the right to a temporary monopoly on their work, and the ability to make money from reproductions of it. For the non-commercial artist, copyright law may function in this way, but it can *also* function as a set of relations, even a 'medium', that can be engaged with critically to question and challenge the kinds of sanctions imposed on their means of production.

Ultimately, I saw the law as a secondary concern when thinking about the ethics of *Selfie Portrait*. In part, this was because the real legal risks were low, but also because developing and enacting my own ethical 'calculus' in the specific context of my practice was more useful than a legal or regulatory framework for weighing up the potential benefits and harm arising from the work. I am not suggesting that the law is unimportant by any means, but that, as Marcus Boon suggests, it is necessary to think beyond a framework of 'rights, property, ownership and copyright' and to consider ethics in the context of practice. This ethics is 'worked out in the configuration of practice itself, and in relation to other practices and practitioners' (Boon, 2010: 247). It was certainly

my experience that the ethics of practice were worked out, relationally, in the configuration of the practice itself.

Digital methods

I have presented an account of how the adoption of digital methods was fundamental to developing my distinctive approach to making art. Digital methods offer a set of techniques and, perhaps more importantly, a way of thinking about the web that enable artists to treat it as a medium, rather than a platform for dissemination. For those who want to make work with the web, it might be useful to take a cue from the digital methods invitation to ‘think along with’ online devices, in order to understand the web as an evolving medium. My aspiration to create ‘natively digital’ artworks was fulfilled, to an extent, through *Flickr Nude or Noodle Descending a Staircase* and *Selfie Portrait*. These works could be understood as ‘born’ of the web – appropriating and repurposing its objects and devices. However, they are also born of human subjectivities that contribute to producing the work and the medium of the web itself. Although digital methods enabled me to understand and handle user-

generated content as digital objects, I have resisted the tendency within digital sociology to overlook the subjects who produce such objects. In *Selfie Portrait*, for example, selfies had to be handled as digital objects in order to programmatically access them through the Instagram API. However, they were *also* understood as representations of human subjectivities, an understanding which manifests the ‘both or ‘and’ logic of extra-subjectivity. Subjects produce digital objects, which in turn produce subjects, and extra-subjectivity encompasses the *experience* of both being productive of and produced within this process. The very notion of the natively digital, which is applicable to non-human entities, collapses when applied to human subjects, who are not only ‘born of’ but give birth to the web.

My participation in the DMI Summer and Winter Schools, *Hack the Space*, and Glasshouse Collective involved working with people from various disciplinary backgrounds including sociology, computer programming, data science, and information design. This reflects the fact that new, cross-disciplinary working dynamics are needed for artists and other practitioners to come to terms with our techno-social world. There is clearly generative potential in hybridizing

conceptual frameworks, methodological outlooks and techniques, and my experience of working in these teams was that they did generate more than the sum of their parts. By adopting a digital methods approach, I have demonstrated a certain form of mobility across disciplinary terrains. However, my disciplinary context did also determine how my agency was enacted. As an artist, my approach to user-generated content is distinct both from digital sociologists at the DMI and those behind the *Selficity* project. Whereas digital sociologists present 'findings' – typically in the form of data visualizations – in order to make sociological claims, as an artist, I present phenomena in other perhaps less determined ways, in order to *re-imagine* the social realm.

Artworks as contribution

The artworks themselves represent a distinctive approach characterized by humour, playfulness and the adoption of digital methods. Their poetic qualities, surprising results, and 'uncontrollable' formations result from the way I adopt generative processes and expand the authorial sphere of the works to include the productive capacities of others. By

marshalling these capacities, I inevitably create something that contains more than the sum of its parts. This perhaps opens the opportunity to use the adverbial form of extra-subjectivity to designate the 'extra-subjective artwork'.

As well as driving the research and affecting my own thinking, the artworks continue to function in the world in various ways, and have the potential to affect how others think. The expressive properties of *Selfie Portrait* operate to critique the narcissistic framing of selfies, presenting them instead as instances of agential image-making and social self-representation. By allowing the viewer to encounter the selfies and the biographical descriptions as part of the artwork, they are distanced from the economy of Instagram, providing reflection on, rather than complicity with it. Adopting a simultaneous proximity to and distance from activities carried out on social media is something the works 'do' to develop thought about the production of subjectivities on the web.

Each of the artworks raised challenges and questions of display, and clearly, artists working with the web have to negotiate the display of their work in various online and

physical spaces. We can return to digital methods to think about this as an issue of how artworks might be 'grounded'. Digital methods question whether it is necessary to 'calibrate' or compare findings with offline datasets or studies, questioning the status of the web as a 'potential grounding site' for research (Rogers, 2013: 5). Although I am not presenting 'findings' I have been faced with an analogous question about the status of the web as a potential grounding site for my artworks. When using Tumblr to create *1000 Truly Original Ideas*, I wrangled over whether it was more important for Tumblr users to like or reblog my work than for a curator, gallerist or other authoritative figure or institution to validate it. Initially, I was resistant to showing web-based works in a gallery setting as this seemed at odds with the opportunity the web offered to circumvent conventional forms of dissemination. However, it now seems reasonable to suggest that my task as a web-based artist is to negotiate multiple forms of attention and spaces of reception in relation to my work, depending on the contexts in which it is produced and disseminated. At the end of the process, it appears that discursive contextualization, rather than any particular device or platform functions to ground the work.

Future research

This research has opened up rich lines of enquiry for both my art practice and further theoretical investigation. *Selfie Portrait* and the Copyright Episode raised more questions than I have answered in this PhD, particularly about what kinds of copyright protection should be developed for personal information, and whether it is ethical to use fair dealing exemptions in relation to individuals as opposed to corporations. It has also opened up fertile territory for further artworks. I intend to pursue the development of an Instagram permission bot, and to explore the performative potential of permission seeking. My recent participation in a short course in 'Legal Aesthetics', led by artist Jack Tan (2016) has consolidated my interest in questions of copyright, ownership and authorship in web-based art practice.

The notion of identity was bracketed in this research, but the entanglement of identity and subjectivity is an area for future investigation. Theoretically, further research into the recursive relationships between the production of identity and the production of subjectivity would be valuable. There is

also much potential for art practice here, and I am particularly interested in developing works that engage with and reflect on the production of identity as an aspect of extra-subjectivity. Perhaps 'performing' the concept of extra-subjectivity will become part of the production of my own artistic and/or academic identity. Questions of copyright are likely to bleed into this area, as they pertain to the ownership and protection of identity as well as of artefacts. To what extent can I 'own' the concept of extra-subjectivity?

Questions about the role of affective labour in the continuing evolution of the web remain pressing, and I anticipate there being a convergence between these and the work undertaken for The Work We Want project. What role will creative cultural production play as forms of work are transformed by technological developments? How will artists and others resist the aggressive commodification of the production of subjectivities, understood as a form of labour on the body?

During the research, the 'outside or beyond' sense of extra-subjectivity became problematic as subjectivity came to be understood as involving the *experience* of being a subject. I rejected this 'outside or beyond' sense on the basis that extra-

subjectivity, as an experience, could not take place outside the subject, since experience is part of human consciousness. As the research concludes, however, it seems that 'extra-subjectivity' *could* refer to the experience of being a subject in relation to other subjects, without it implying an extra-ontological state. Although I focused on the 'surplus' sense of extra-subjectivity, other researchers could usefully take up the 'outside or beyond' sense of the term. Further work could be done to situate extra-subjectivity as part of a 'distinctive ontology or theory of the subject that exceeds the explanations of power/discourse/history' (Blackman *et al.*, 2008: 8). Recourse to the notion of excess seems a fitting way to conclude given that it is homonymous to the abbreviated form of extra-subjectivity: 'ex-s'.

INTRODUCTION
METHODOLOGY
LITERATURE REVIEW
PRACTICE REVIEW
PRACTICE 1
PRACTICE 2
PRACTICE 3
PRACTICE 4
THE COPYRIGHT EPISODE
CONCLUSIONS
BIBLIOGRAPHY
APPENDICES

Books and Book Sections

- Akrich, M. (1992) 'The de-description of technical objects' in Bijker, W. & Law, J. (eds.) *Shaping technology, building society: studies in sociotechnical change*. Cambridge, MA: MIT Press, pp. 205–224.
- Amerika, M. (2002) *How to be an internet artist*. Boulder, CO: Alt-X Digital Arts Foundation.
- Andrejevic, M. (2013) 'Authoring user-generated content' in Chris, C. & Gerstner, D. A. (eds.) *Media authorship*. New York: Routledge, pp. 123–136.
- Andrews, M., Squire, C. & Tamboukou, M. (2008) *Doing narrative research*. Thousand Oaks, CA: SAGE.
- Archer, M. S. (1995) *Realist social theory: the morphogenetic approach*. Cambridge: Cambridge University Press.
- Archer, M. S. (1996) *Culture and agency: the place of culture in social theory*, revised edition. Cambridge: Cambridge University Press.
- Arns, I. (2004) 'Read_me, run_me, execute me: software and its discontents, or: it's the performativity of code, stupid' in Goriunova, O. & Shulgin, A. (eds.) *Read_me: software art & cultures*. University of Aarhus, Denmark: Digital Aesthetics Research Centre, pp. 176–193.
- Ascott, R. & Shanken, E. A. (2003) *Telematic embrace: visionary theories of art, technology, and consciousness*. Berkeley: University of California Press.
- Aufderhide, P. (2013) 'Creativity, copyright, and authorship' in Chris, C. & Gerstner, D. A. (eds.) *Media authorship*. New York: Routledge, pp. 21–36.
- Avgerou, C., Ciborra, C. & Land, F. (2004) *The social study of information and communication technology: innovation, actors, and contexts*. New York: Oxford University Press.
- Bakhtin, M. M. & Holquist, M. (1981) *The dialogic imagination: four essays*. Austin: University of Texas Press.

- Barker, C. (2004) 'Author' in Barker, C. *The Sage dictionary of cultural studies*. London: SAGE, pp. 10–11.
- Barrett, E. & Bolt, B. (eds.) (2007) *Practice as research: approaches to creative arts enquiry*. London: I.B. Tauris.
- Bateson, G. (2000) *Steps to an ecology of mind*. Chicago: University of Chicago Press.
- Bateson, G. (2002) *Mind and nature: a necessary unity*. Cresskill, NJ: Hampton Press.
- Bateson, G. & Donaldson, R. E. (1991) *A sacred unity: further steps to an ecology of mind*. New York: Cornelia & Michael Bessie Books.
- Bauman, Z. (2011) *Culture in a liquid modern world*. Cambridge, UK: Polity Press.
- Becker, H. S. (1998) *Tricks of the trade: how to think about your research while you're doing it*. Chicago: University of Chicago Press.
- Billing, J., Lind, M. & Nilsson, L. (2007) *Taking the matter into common hands: on contemporary art and collaborative practices*. London: Black Dog Publishing.
- Bishop, C. (ed.) (2006a) *Participation*. London: Whitechapel; Cambridge, MA: MIT Press.
- Blackmore, S. J. (2006) *Conversations on consciousness: what the best minds think about the brain, free will, and what it means to be human*. Oxford: Oxford University Press.
- Boateng, B. (2013) 'Authoring cloth: the copyright protection of fabric designs in Ghana and the United States' in Chris, C. & Gerstner, D. A. (eds.) *Media authorship*. New York: Routledge, pp. 87–104.
- Bosma, J. (2011) *Nettitudes: let's talk net art*. Rotterdam: Nai Publishers.
- Bourriaud, N. (2002a) *Postproduction culture as screenplay: how art reprograms the world*. New York: Lukas & Sternberg.
- Bourriaud, N. (2002b) *Relational aesthetics*. Dijon: Les Presses du réel.
- boyd, D. (2010) 'Social network sites as networked publics: affordances, dynamics, and implications' in Papacharissi, Z. (ed.) *A networked self: identity, community, and culture on social network sites*. New York: Routledge, pp. 39–58.

- Boyle, J. (2008) *The public domain: enclosing the commons of the mind*. New Haven, CT: Yale University Press.
- Burroughs, W. S. & Gysin, B. (1978) *The third mind*. New York: Viking Press.
- Butler, N. (2011) 'Subjectivity and subjectivation' in Tadajewski, M., Maclaran, P., Parsons, E. & Parker, M. (eds.) *Key concepts in critical management studies*. Thousand Oaks, CA: SAGE, pp. 210–213.
- Butt, G. (2005) *After criticism: new responses to art and performance*. Malden, MA: Blackwell.
- Callon, M. (2008) 'Economic markets and the rise of interactive agencements: from prosthetic agencies to habilitated agencies' in Pinch, T. & Swedberg R. (eds.) *Living in a material world: economic sociology meets science and technology studies*. Cambridge, MA: MIT Press, pp. 29–56.
- Capra, F. (1988) *Uncommon wisdom: conversations with remarkable people*. New York: Simon and Schuster.
- Capra, F. (2002) *The hidden connections: integrating the biological, cognitive, and social dimensions of life into a science of sustainability*. New York: Doubleday.
- Carr, N. G. (2008) *The big switch: rewiring the world, from Edison to Google*. New York: W. W. Norton & Co.
- Carr, N. G. (2010) *The shallows: what the internet is doing to our brains*. New York: W. W. Norton & Co.
- Castells, M. (2010) *The rise of the network society: the information age: economy, society and culture*. Vol 1, 2nd edn. Malden, MA: Wiley-Blackwell.
- Charlton, N. G. (2008) *Understanding Gregory Bateson: mind, beauty, and the sacred earth*. Albany: State University of New York Press.
- Chris, C. & Gerstner, D. A. (eds.) (2013) *Media authorship*. New York: Routledge.
- Clewell, T. (2000) 'Subjectivity' in Taylor, V. E. & Winqvist, C. E. (eds.) *Routledge encyclopedia of postmodernism*. New York: Routledge, pp. 381–383.
- Corning, P. A. (2005) *Holistic Darwinism: synergy, cybernetics, and the bioeconomics of evolution*. Chicago: University of Chicago Press.

- Cox, G. & Krysa, J. (2005) 'Introduction to "the author as (digital) producer"' in Cox, G. & Krysa, J. (eds.) *Engineering culture: on 'the author as (digital) producer'*. Brooklyn, NYC: Autonomedia, pp. 7–29.
- Craib, I. (2011) *Anthony Giddens*. 2nd edn. Abingdon, Oxon: Routledge.
- Cramer, F. (2005) *Words made flesh: code, culture, imagination*. Rotterdam: Piet Zwart Institute.
- Cramer, F. (2011) 'Net art back to square one' in Bosma, J. *Nettitudes: let's talk net art*. Rotterdam, Amsterdam: Nai Publishers & Institute of Network Cultures, pp. 9–14.
- Crawford, C. (2005) 'Actor network theory' in Ritzer, G. (ed.) *Encyclopedia of social theory*. Thousand Oaks, CA: SAGE, pp. 1–4.
- Crimp, D. (1982) 'Appropriating appropriation' in Crimp, D. (1993) *On the museum's ruins*. Cambridge, MA: MIT Press, pp. 126–136.
- Daniels, D. & Reisinger, G. (2009) *Net pioneers 1.0: contextualizing early net-based art*. Berlin: Sternberg Press.
- Davis, B. W. (ed.) (2010) *Martin Heidegger: key concepts*. Durham: Acumen.
- Davis, M. (2013) 'Doing research "on and through" new media narrative' in Andrews, M., Squire, C. & Tamboukou, M. (eds.) *Doing narrative research*. Thousand Oaks, CA: SAGE, pp. 159–175.
- Dettmar, K. J. H. (1996) *The illicit Joyce of postmodernism: reading against the grain*. Madison: University of Wisconsin Press.
- Doctorow, C. (2014) *Information doesn't want to be free*. San Francisco: McSweeney's.
- Doy, G. (2005) *Picturing the self: changing views of the subject in visual culture*. London: I.B. Tauris.
- Elkins, J. (2009) *Artists with PhDs: on the new doctoral degree in studio art*. Washington, DC: New Academia.
- Foster, H. (1985) *Recodings; art, spectacle, cultural politics*. New York: The New Press.
- Foucault, M. (1969) 'What is an author?' in Rainbow, P. (ed.) (1991) *The Foucault Reader: An Introduction to Foucault's Thought*, pp.

103–104.

Fuchs, C. (2014a) *Social media: a critical introduction*. London: SAGE.

Fuller, M. (2005) *Media ecologies: materialist energies in art and technoculture*. Cambridge, MA: MIT Press.

Galloway, A. R. & Thacker, E. (2007) *The exploit: a theory of networks*. Minnesota: University of Minnesota Press.

Gauntlett, D. (2011) *Making is connecting: the social meaning of creativity, from DIY and knitting to YouTube and Web 2.0*. Cambridge, UK: Polity Press.

Gere, C. (2008) *Digital culture*. 2nd edn. London: Reaktion Books Ltd.

Giddens, A. (1979) *Central problems in social theory: action, structure and contradiction in social analysis*. Berkeley: University of California Press.

Giddens, A. (1981) *A contemporary critique of historical materialism. Vol 1: power, property and the state*. London: Macmillan.

Giddens, A. (1984) *The constitution of society: outline of the theory of structuration*. Berkeley: University of California Press.

Giddens, A. (1985) *A contemporary critique of historical materialism. Vol 2: the nation-state and violence*. Cambridge, UK: Polity Press.

Giddens, A. (1993) *New rules of sociological method: a positive critique of interpretative sociologies*. 2nd edn. London: Hutchinson.

Goriunova, O. (2012) *Art platforms and cultural production on the internet*. New York: Routledge.

Graham, B. & Cook, S. (2010) *Rethinking curating: art after new media*. Cambridge, MA: MIT Press.

Grossberg, L. (1996) 'History, politics and postmodernism: Stuart Hall and cultural studies' in Chen, K. & Morley, D. (eds.) *Stuart Hall: critical dialogues in cultural studies*. London: Routledge, pp. 151–173.

Guattari, F. (2000) *The three ecologies*. London: The Athlone Press.

- Hanretty, C. (2013) *Scraping the web for arts and humanities*. Norwich: University of East Anglia.
- Hardt, M. & Negri, A. (2000) *Empire*. Cambridge, MA: Harvard University Press.
- Hardy, H. E. (2003) 'Internet, history and development of' in Johnston, D. (ed.) *Encyclopedia of international media and communications*. Oxford: Elsevier Science & Technology, pp. 541–550.
- Harman, G. (2002) *Tool-being: Heidegger and the metaphysics of objects*. Chicago: Open Court.
- Haraway, D. J. (1991) 'A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century' in Haraway, D. J. *Simians, Cyborgs and Women: The Reinvention of Nature*. New York: Routledge, pp. 149–182.
- Harries-Jones, P. (1995) *A recursive vision: ecological understanding and Gregory Bateson*. Toronto: University of Toronto Press.
- Heidegger, M. (1977) *The question concerning technology, and other essays*. Translated by Lovitt, W. New York: Harper and Row.
- Ihde, D. (2010) *Heidegger's technologies: postphenomenological perspectives*. New York: Fordham University Press.
- Jenkins, H. (2006) *Convergence culture: where old and new media collide*. New York: New York University Press.
- Jennings, M. W., Eiland, H. & Smith, G. (eds.) (2005) *Walter Benjamin: selected writings: Volume 2, part 2, 1927–1934*. Cambridge, MA: Harvard University Press.
- Johnson, S. (2001) *Emergence: the connected lives of ants, brains, cities, and software*. New York: Scribner.
- Josselson, R. (2007) 'The ethical attitude in narrative research: principles and practicalities' in Clandinin, D. J. *Handbook of narrative inquiry*. Thousand Oaks, CA: SAGE, pp. 537–566.
- Keen, A. (2007) *The cult of the amateur: how today's internet is killing our culture*. New York: Doubleday.
- Keen, A. (2012) *Digital vertigo: how today's online social revolution is dividing, diminishing, and disorienting us*. New York: St. Martin's Press.

- Kholeif, O. (ed.) (2013) *You are here: art after the internet*. Manchester and London: Cornerhouse and SPACE.
- Kirby, A. (2009) *Digimodernism: how new technologies dismantle the postmodern and reconfigure our culture*. New York: Continuum.
- Krygier, J. & Wood, D. (2012) 'Ce n'est pas le monde (This is not the world)' in Tuters, M. & van der Velden, L. (eds.) *Reality mining & the limits of digital methods; digital methods summer school 2012 reader*. Amsterdam: Digital Methods Initiative, pp. 214–244.
- Latour, B. (2005a) 'On the difficulty of being an ANT: an interlude in the form of a dialog' in Latour, B. *Reassembling the social: an introduction to actor-network-theory*. New York: Oxford University Press, pp. 141–158.
- Latour, B. (2005b) *Reassembling the social: an introduction to actor-network-theory*. New York: Oxford University Press.
- Law, J. & Hassard, J. (1999) *Actor network theory and after*. Oxford; Malden, MA: Blackwell.
- Lazzarato, M. (1996) 'Immaterial labor' in Virno, P. & Hardt, M. (eds.) *Radical thought in Italy: a potential politics (Theory out of bounds)*. Minnesota: University of Minnesota Press, pp. 133–150.
- Leitch, V. B. (2001) *The Norton anthology of theory and criticism*. New York: W.W. Norton & Co.
- Lessig, L. (2004) *Free culture: how big media uses technology and the law to lock down culture and control creativity*. New York: The Penguin Press.
- Lessig, L. (2008) *Remix: making art and commerce thrive in the hybrid economy*. New York: The Penguin Press.
- Losh, E. (2013) 'The myth of democratizing media: software specific production cultures' in Chris, C. & Gerstner, D. A. (eds.) *Media authorship*. New York: Routledge, pp. 197–211.
- Lovink, G. (2002) *Uncanny networks: dialogues with the virtual intelligentsia*. Cambridge, MA: MIT Press.
- Lovink, G. (2008) *Zero comments: blogging and critical internet culture*. London: Routledge.
- Lovink, G. (2011) *Networks without a cause: a critique of social media*. Cambridge, UK: Polity Press.

- Macleod, K. & Holdridge, L. (2006) *Thinking through art: reflections on art as research*. London: Routledge.
- Manovich, L. (2001) *The language of new media*. Cambridge, MA: MIT Press.
- Mansfield, N. (2000) *Subjectivity: theories of the self from Freud to Haraway*. St. Leonards, NSW: Allen & Unwin.
- Marres, N. (2012) *Material participation: technology, the environment and everyday publics*. Basingstoke, UK: Palgrave Macmillan.
- Marres, R. (1989) *In defense of mentalism: a critical review of the philosophy of mind*. Amsterdam: Rodopi.
- Marx, K. (1995) 'The fetishism of commodities and the secret thereof' in McLellan, D. (ed.) (2008) *Karl Marx Capital: a new abridgement edition*. Oxford: Oxford University Press, pp. 42–50.
- Mason, C. (2008) *A computer in the art room: the origins of British computer arts 1950–1980*. Hindringham, Norfolk: JJG Publishing.
- McHugh, G. (2011) *Post internet*. Brescia, Italy: LINK Editions.
- Montfort, N. (2003) '[Introduction] The cut-up method of Brion Gysin' in Wardrip-Fruin, N. & Montfort, N. (eds.) *The new media reader*. Cambridge, MA: MIT Press, p. 89.
- Navas, E., Gallagher, O. & Burrough, X. (eds.) (2015) *The Routledge companion to remix studies*. New York and Oxon: Taylor & Francis.
- Neubauer, J. (1999) *Cultural history after Foucault*. New York: Aldine de Gruyter.
- Norman, D. (1990) 'Why interfaces don't work' in Laurel, B. (ed.) *The art of human-computer interface design*. Reading, MA: Addison-Wesley Professional, pp. 209–219.
- Parikka, J. (2007) *Digital contagions: a media archaeology of computer viruses*. New York: Peter Lang.
- Parikka, J. (2010) *Insect media: an archaeology of animals and technology*. Minnesota: University of Minnesota Press.

- Paul, C. (2008) *New media in the white cube and beyond: curatorial models for digital art*. Berkeley: University of California Press.
- Phillips, A. (2014) *Turning the page: the evolution of the book*. Abingdon, Oxon: Routledge.
- Phillips, L., Prince, R. & Whitney Museum of American Art (1992) *Richard Prince*. New York: Whitney Museum of American Art: Distributed by H. N. Abrams.
- Ranciere, J. (2009) *The emancipated spectator*. London, Verso.
- Robillard, A. E. & Fortune, R. (eds.) (2016) *Authorship contested: cultural challenges to the authentic, autonomous author*. Abingdon, Oxon: Routledge.
- Roche, J. (2008) 'Socially engaged art, critics and discontents: an interview with Claire Bishop' in Crawford, H. (ed.) *Artistic bedfellows: histories, theories and conversations in collaborative art practise*. Maryland, USA: University Press of America, pp. 202–209.
- Rogers, R. (2013) *Digital methods*. Cambridge, MA: MIT Press.
- Rose, G. (2007) *Visual methodologies: an introduction to the interpretation of visual materials*. London and Thousand Oaks, CA: SAGE.
- Ruggill, J. E. & McAllister, K. S. (2013) 'Invention, authorship, and massively collaborative media' in Chris, C. & Gerstner, D. A. (eds.) *Media authorship*. New York: Routledge, pp. 137–150.
- Rushkoff, D. & Purvis, L. (2010) *Program or be programmed: ten commands for a digital age*. Berkeley, CA: Soft Skull Press.
- Ryan, P. (2005) 'Bateson, Gregory' in Shook, J. R. (ed.) *Dictionary of modern American philosophers*. Bristol: Thoemmes Continuum, pp. 153–155.
- Sandino, L. (2010) 'Artists-in-progress: narrative identity of the self as another' in Hyvärinen, M., Hydén, L-C., Saarenheimo, M. & Tamboukou, M. (eds.) *Beyond narrative coherence*. Amsterdam: John Benjamins. pp. 87–102.
- Shakespeare, W. (2015) *King John*. London: Penguin Classics. 4.2: 9–16.
- Simondon, G. (2007) *L'individuation psychique et collective*. Paris: Aubier.

- Sinnreich, A. (2010) *Mashed up: music, technology, and the rise of configurable culture*. Amherst, MA: University of Massachusetts Press.
- Sinnreich, A. (2015) 'The emerging ethics of network culture' in Navas, E., Gallagher, O. & Burrough, X. (eds.) *The Routledge companion to remix studies*. New York and Oxon: Taylor & Francis, pp. 227–245.
- Smith, A. M. (1998) *Laclau and Mouffe: the radical democratic imaginary*. London and New York: Routledge.
- Smythe, D. W. (2006) 'On the audience commodity and its work' in Gigi Durham, M. & Kellner, D. M. (eds.) *Media and cultural studies*. Malden, MA: Blackwell, pp. 230–256.
- Sonvilla-Weiss, S. (ed.) (2010) *Mashup cultures*. Germany: Springer-Verlag/Wien.
- Spaulding, P. & Signorile, M. (2013) 'Copyright shakedown: the rise and fall of Righthaven' in Chris, C. & Gerstner, D. A. (eds.) *Media authorship*. New York: Routledge, pp. 37–55.
- Stiegler, B. (1998) *Technics and time, 1: the fault of Epimetheus*. Translated by Beardsworth, R. & Collins, G. Stanford, CA: Stanford University Press.
- Tadajewski, M., Maclaran, P., Parsons, E. & Parker, M. (eds.) (2011) *Key concepts in critical management studies*. London: SAGE.
- Taylor, V. E. & Winquist, C. E. (eds.) (2002) *Encyclopedia of postmodernism*. Abingdon, Oxon: Routledge.
- Terranova, T. (2004) *Network culture: politics for the information age*. London: Pluto Press.
- Turkle, S. (2011) *Alone together: why we expect more from technology and less from each other*. New York: Basic Books.
- Tuters, M. & van der Velden, L. (eds.) (2012) *Reality mining & the limits of digital methods; digital methods summer school 2012 reader*. Amsterdam: Digital Methods Initiative.
- Vaidhyathan, S. (2011) *The Googlization of everything (and why we should worry)*. Berkeley: University of California Press.
- Virno, P. & Hardt, M. (1996) *Radical thought in Italy: a potential politics*. Minnesota: University of Minnesota Press.

Wardrip-Fruin, N. & Montfort, N. (eds.) (2003) *The new media reader*. Cambridge, MA: MIT Press.

Weinstock Netanel, N. (2008) *Copyright's paradox*. New York: Oxford University Press.

Wolfe, C. (1998) *Critical environments: postmodern theory and the pragmatics of the 'outside'*. Minnesota: University of Minnesota Press.

Woolgar, S., Cheniti, T., Lezaun, J. *et al.* (2009) 'A turn to ontology in STS? 1.2: some notes by way of a preliminary provocation' in Tuters, M. & van der Velden, L. (eds.) (2012) *Reality mining & the limits of digital methods; digital methods summer school 2012 reader*. Amsterdam: Digital Methods Initiative, pp. 360–367.

Journal Articles

Arvidsson, A. (2005) 'Brands: a critical perspective', *Journal of Consumer Culture*, 5 (2), pp. 235–258.

Band, J. (2001) 'The copyright paradox', *Brookings Review*, 19 (1), pp. 32–34.

Beech, D. (2008) 'Include me out', *Art Monthly*, 315 (April), pp. 1–4.

Beer, D. & Burrows, R. (2007) 'Sociology and, of and in Web 2.0: some initial considerations', *Sociological Research Online* 12 (5). Available at: <http://www.socresonline.org.uk/12/5/17.html> (Accessed: 22 August 2016).

Bishop, C. (2006b) 'The social turn: collaboration and its discontents', *Artforum International*, 44 (6), pp. 178–183.

Bishop, C. (2012) 'The digital divide', *Artforum International*, 51 (1), pp. 435–441.

Blackman, L., Cromby, J., Hook, D., Papadopoulos, D. & Walkerdine, V. (2008) 'Creating subjectivities', *Subjectivity*, 22, pp. 1–27.

Brockmeier, J. (2009) 'Reaching for meaning: human agency and the narrative imagination', *Theory & Psychology*, 19 (2), pp. 213–233.

- Carrier, M. (2013) 'SOPA, PIPA, ACTA, TPP: an alphabet soup of innovation-stifling copyright legislation and agreements', *Northwestern Journal of Technology and Intellectual Property*, 11 (2), pp. 21-31.
- Catlow, R. (2012) 'We won't fly for art: media art ecologies', *Culture Machine*, 13, pp. 1-7.
- Das, R. & Pavlickova, T. (2014) 'Is there an author behind this text? A literary aesthetic driven approach to interactive media', *New Media & Society*, 16 (3), pp. 381-397.
- Dresscher-Lamburtus, N., Petkova, S., Renzini, T. *et al.* (2013a) 'The visual output of Kony 2012: following Kony on Tumblr and Instagram'. Unpublished paper, submitted to Digital Methods Initiative Winter School, 2013.
- Estellés-Arolas, E. & González-Ladrón-de-Guevara, F. (2012) 'Towards an integrated crowdsourcing definition', *Journal of Information Science*, 38 (2), pp. 189-200.
- Feenberg, A. (2005) 'Critical theory of technology: an overview', *Tailoring Biotechnologies*, 1 (1), pp. 47-64.
- Fernandez, M. (2008) 'Detached from HiStory: Jasia Reichardt and Cybernetic Serendipity', *Art Journal*, 67 (3), pp. 6-23.
- Fodor, J. (2009) 'Where is my mind?', *The London Review of Books*, 31 (3), pp. 13-15.
- Gablik, S. (1992) 'Connective aesthetics', *American Art*, 6 (2), pp. 2-7.
- Gere, C. (2004) 'New media art and the gallery in the digital age'. *Tate Papers*, 2. Available at: <http://www.tate.org.uk/research/publications/tate-papers/new-media-art-and-gallery-digital-age> (Accessed: 17 July 2015).
- Goddard, M. (2011) 'FCJ-114 towards an archaeology of media ecologies: 'media ecology', political subjectivation and free radios', *The Fibreculture Journal*, 17, pp. 6-17.
- Goddard, M. & Parikka, J. (2011) 'Editorial: issue 17 2011 unnatural ecologies', *The Fibreculture Journal*, pp. 1-5.
- Gómez-Cruz, E. A. (2012) 'Private body, public image: self-portrait in the practice of digital photography', *Revista de Dialectología y Tradiciones Populares*, 1 (67), pp. 181-208.

Green, C. (2004) 'Group soul', *Third Text*, 18 (6), pp. 595–608.

Hall, G. (2013) '#Mysubjectivation', *New Formations: a Journal of Culture/Theory/Politics*, 79, pp. 83–102.

Hanseth, O., Aanestad, M. & Berg, M. (2004) 'Guest editors' introduction: actor-network theory and information systems. What's so special?', *Information Technology & People*, 17 (2), pp. 116–123.

Hayles, K. (2009) 'RFID: human agency and meaning in information-intensive environments', *Theory, Culture & Society*, 26 (2/3), pp. 47–72.

Helmond, A. & Gerlitz, C. (2013) 'The like economy: social buttons and the data-intensive web', *New Media & Society*, 15 (8), pp. 1348–1365.

Hendricks, C. (2002) 'The author[s] remains: Foucault and the demise of the "author-function"', *Philosophy Today*, 46 (2), pp. 152–169.

Hesmondalgh, D. (2010) 'User-generated content, free labour and the cultural industries', *Ephemera*, 10 (3/4), pp. 267–284.

Kaizen, W. (2008) 'Steps to an ecology of communication: "radical software", Dan Graham, and the legacy of Gregory Bateson', *Art Journal*, 67 (3), pp. 86–107.

Latonero, M. & Sinnreich, A. (2014) 'The hidden demography of new media ethics', *Information, Communication and Society*, 17 (5), pp. 572–593.

Latour, B. (1999) 'On recalling ANT', *The Sociological Review*, 47 (S1), pp. 15–25.

Latour, B., Jensen, P., Venturini, T. *et al.* (2012) 'The whole is always smaller than its parts. A digital test of Gabriel Tarde's monads', *British Journal of Sociology*, 63 (4), pp. 590–615.

Marres, N. & Weltevrede, E. (2013) 'Scraping the social?', *Journal of Cultural Economy*, 6 (3), pp. 313–335.

Negri, A. (1999) 'Value and affect', *Boundary*, 26 (2), pp. 77–88. Translated by Hardt, M.

- Oppenheim, C. (2009) 'Copyright's paradox', *Learned Publishing*, 22 (3), pp. 243–244. Available at: <http://www.ingentaconnect.com/content/alpsp/lp/2009/00000022/00000003/art00011> (Accessed: 6 April 2014).
- O'Riley, T. (2006) 'An inaudible dialogue', *Working Papers in Art and Design*, 4. Available at: http://www.herts.ac.uk/_data/assets/pdf_file/0015/12390/WPIAAD_vol4_oriley.pdf (Accessed: 3 November 2013).
- O'Sullivan, S. (2001) 'The aesthetics of affect: thinking art beyond representation', *Angelaki: Journal of the Theoretical Humanities*, 6 (3), pp. 125–136.
- Parikka, J. (2011) 'FCJ-116 media ecologies and imaginary media: transversal expansions, contractions, and foldings', *The Fibreculture Journal*, (17), pp. 34–50.
- Pérez, F. (2008) 'Voluntarism and determinism in Giddens's [sic] and Bourdieu's theories of human agency', *Essex Graduate Journal of Sociology*, 8, pp. 55–64.
- Prensky, M. (2001) 'Digital natives, digital immigrants', *On the Horizon*, 9 (5) pp. 1–6.
- Read, J. (2010) 'The production of subjectivity: from transindividuality to the commons', *New Formations: a Journal of Culture/Theory/Politics*, 70, pp. 113–131.
- Riis, S. (2010) 'The symmetry between Bruno Latour and Martin Heidegger: the technique of turning a police officer into a speed bump', *Social Studies of Science*, 38 (2), pp. 285–301.
- Roberts, J. (2004) 'Collaboration as a problem of art's cultural form', *Third Text*, 18 (71), pp. 557–564.
- Rogers, R. (2009a) 'Post-demographic machines', *Walled Garden*. Eds. Annet Dekker and Annette Wolfsberger. Amsterdam: Virtueel Platform, pp. 29–39.
- Scott, J. W. (1991) 'The evidence of experience', *Critical Enquiry*, 17 (4), pp. 773–797.
- Scrivener, S. (2000) 'Reflection in and on action and practice in creative-production doctoral projects in art and design', *Working Papers in Art and Design*, 1. Available at: https://www.herts.ac.uk/_data/assets/pdf_file/0014/12281/WPIAAD_vol1_scrivener.pdf (Accessed: 8 August 2016).

- Selwyn, N. (2009) 'The digital native – myth and reality', *Aslib Proceedings*, 61 (4), pp. 364–379.
- Sewell, W. H. Jnr. (1992) 'A theory of structure: duality, agency, and transformation', *American Journal of Sociology*, 98 (1), pp. 1–29.
- Sinnreich, A., Latonero, M. & Gluck, M. (2009) 'Ethics reconfigured: how today's media consumers evaluate the role of creative appropriation', *Information, Communication and Society*, 12 (8), pp. 1242–1260.
- Soon, W. (2011) 'The public interface as an art-making enabler', *Parsons Journal for Information Mapping*, 3 (4), pp. 1–7.
- Soon, W. (2014) 'Post-digital approach: rethinking digital liveness in "The Likes of Brother Cream Cat"', *APRJA: Post-digital Research* 3 (1). Available at: <https://tm-resource.projects.cavi.au.dk/?p=1814> (Accessed: 23 February 2016).
- Spence, R. (2007) 'The wisdom of crowdsourcing', *Profit*, 26 (1), p. 36.
- Tenopir, C. (2007) 'Web 2.0: our cultural downfall', *Library Journal*, 132 (20), p. 36.
- Terranova, T. (2000) 'Free labour: producing culture for the digital economy', *Social Text*, 63 (18, 2), pp. 33–58.
- Thayne, M. (2012) 'Friends like mine: the production of socialised subjectivity in the attention economy', *Culture Machine*, 13, pp. 1–23.
- Thrift, N. (2011) 'Lifeworld Inc—and what to do about it', *Environment and Planning D: Society and Space*, 29 (1), pp. 5–26.
- Van Dijck, J. (2009) 'Users like you? Theorizing agency in user-generated content', *Media, Culture & Society*, 31 (1), pp. 41–58.
- Vasey, G. (2013) 'Self 2 selfie', *Art Monthly*, 371, pp. 5–8.
- Wark, M. (2014) 'Design for a new world', *E-flux*, 58. Available at: <http://www.e-flux.com/journal/designs-for-a-new-world/> (Accessed: 31 August 2015).
- Zimmer, M. (2010) "'But the data is already public": on the ethics of research in Facebook', *Ethics and Information Technology*, 12 (4), pp. 313–325.

Online sources [online articles, blog posts, web pages, videos, podcasts, radio]

319 Scholes (2011) *Notes on a New Nature*. Available at: <http://319scholes.org/exhibition/notes-on-a-new-nature/> (Accessed: 23 April 2016).

Ahn, L. V. (2011) *Luis Von Ahn: Massive-scale online collaboration*. Available at: http://www.ted.com/talks/luis_von_ahn_massive_scale_online_collaboration.html (Accessed: 6 March 2016).

Amazon Mechanical Turk (2016) *amazonmechanical turk: Artificial Artificial Intelligence*. Available at: <https://www.mturk.com/mturk/welcome> (Accessed: 15 February 2016).

Aminda (2011) 'Crowdsourcing: an ethics dilemma?', *IdeaCONNECTION*, 23 April. Available at: <http://www.ideaconnection.com/blog/2011/04/crowdsourcing-an-ethics-dilemma/> (Accessed: 23 April 2011).

Apple (2016) *iPhone 4 – Technical Specifications*. Available at: <http://support.apple.com/kb/SP587> (Accessed: 16 February 2016).

Archev, K. (2013) *Postinternet Observations* (pdf), *Art After The Internet*. Available at: <https://artaftertheinternet.files.wordpress.com/2013/10/eeadf-postinternetessay.pdf> (Accessed: 3 February 2015).

Art History Archive (no date) *Tristan Tzara; The Art History Archive – DADA*. Available at: <http://www.arthistoryarchive.com/arthistory/dada/Tristan-Tzara.html> (Accessed: 20 October 2015).

Barker, J. (2003) *What makes a search engine good?* (pdf), UC Berkley Library. Available at: <http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/SrchEngCriteria.pdf> (Accessed: 24 November 2013).

Barok, D. (2009) 'On participatory art interview with Claire Bishop', *Scribd*. Available at: <https://www.scribd.com/doc/56968733/On-participatory-art-Interview-with-Claire-Bishop> (Accessed: 26 April 2016).

Bauer, B. (2011) *To Open (...) To Collect (...) To Expand (...) To Continue: Richard Serra's Verb List, PostInternet Appropriation, and the Culture of the Use of Forms* (pdf), *Brandonbauer.org*. Available at: https://randomculture.files.wordpress.com/2014/01/bauer_to-open-e280a6-to-collect-e280a6-to-expand-e280a6-to-continue.pdf (Accessed: 7 March 2014).

- Beal, V. (no date) *JavaScript*. Available at: <http://www.webopedia.com/TERM/J/JavaScript.html> (Accessed: 5 December 2013).
- Behler, C. (2001) *Agency*. Available at: <http://faculty.washington.edu/cbehler/glossary/agency.html> (Accessed: 29 September 2015).
- Berman, T., Connor, J. & Webb, C. (2015a) *THE WORK WE WANT: GLASSHOUSE COLLECTIVE*. Available at: <http://workwewant.com/about> (Accessed: 28 March 2016).
- Berman, T., Connor, J. & Webb, C. (2015b) *THE WORK WE WANT*. Available at: <http://workwewant.com/> (Accessed: 28 March 2016).
- Big Data & Society (2014) *Bookcast: BD&S Co-editor Richard Rogers interviewed by Noortje Marres on his book, Digital Methods*. Available at: <https://www.youtube.com/watch?v=lzNMjD4omiU> (Accessed: 13 January 2015).
- Black, R. (no date) *Random Surrealism Generator*. Available at: <http://www.ravenblack.net/random/surreal.html> (Accessed: 17 April 2016).
- Block 336 (2016) *Everything Wants to Run*. Available at: <http://block336.com/exhibitions/everything-wants-to-run/> (Accessed: 7 February 2016).
- Blunden, A. (2005) *The Poststructuralist Subject; Review of Feminist Practice and Poststructuralist Theory, Chris Weedon, 1987*. Available at: <http://home.mira.net/~andy/works/weedon.htm> (Accessed: 1 October 2012).
- Boon, M. (2010) *In praise of copying* (pdf), Harvard University Press. Available at: <http://www.hup.harvard.edu/features/in-praise-of-copying/In-Praise-of-Copying-by-Marcus-Boon-HUP-free-full-text.pdf> (Accessed: 19 June 2016).
- Bosma, J. (2000) <nettime> *Josephine Bosma: Between moderation and extremes*. Available at: <https://nettime.org/Lists-Archives/nettime-l-0009/msg00209.html> (Accessed: 2 August 2016).
- Brager, J. (2014) 'Selfie Control', *The New Inquiry*, 17 March. Available at: <http://thenewinquiry.com/essays/selfie-control/> (Accessed: 26 April 2016).
- Bryant, L. R. (2006) 'Simondon and Individuation', *Larval Subjects*, 6 July. Available at: <http://larvalsubjects.wordpress.com/2006/07/06/simondon-and-individuation/> (Accessed: 8 May 2016).

Bulhak, A. C. (1996) *On the Simulation of Postmodernism and Mental Debility using Recursive Transition Networks* (pdf), Department of Computer Science, Monash University. Available at: <http://www.elsewhere.org/journal/wp-content/uploads/2005/11/tr-cs96-264.pdf> (Accessed: 17 April 2016).

Burks, N. (no date) *Nia Burks*. Available at: <http://www.niaborks.com> (Accessed: 19 January 2011).

Camra (2014) *SSMF 2014*. Available at: <http://camrapenn.org/ssmf/ssmf-2014/> (Accessed: 10 January 2016).

Carneades.org (2015) *Ethics vs Morality (Philosophical Distinctions)*. Available at: <https://www.youtube.com/watch?v=fAkqh9pfVkc> (Accessed: 13 March 2016).

Carr, N. (2008) 'Is Google Making us Stupid? What the Internet is doing to our brains', *The Atlantic*. Available at: <http://www.theatlantic.com/magazine/archive/2008/07/is-google-making-us-stupid/306868/> (Accessed: 8 May 2016).

Carrigan, M. (2012) 'The cultural transformation driven by the internet & the case study of asexuality', *Mark Carrigan*, 2 January. Available at: <https://markcarrigan.net/2012/01/02/the-cultural-transformation-driven-by-the-internet-the-case-study-of-asexuality/> (Accessed: 13 April 2016).

Carroll, M. (2012) 'How Tumblr Drove the Evolution of Content into an Image Dominated Experience', *Forbes Magazine*, 6 January. Available at: <http://www.forbes.com/sites/matthewcarroll/2012/01/06/crippling-image-intelligence-problem-part-1-the-evolution-of-content-into-a-highly-visual-experience/#44436ff846dc> (Accessed: 10 July 2012).

Casati, R. & Varzi, A. (2015) 'Events', *The Stanford Encyclopedia of Philosophy Archive (Winter 2015 Edition)*, 22 April 2002; substantive revision 27 August 2014. Available at: <http://plato.stanford.edu/archives/win2015/entries/events/> (Accessed: 26 April 2016).

Castella, T. D. (2010) 'Should we trust the wisdom of the crowds?', *BBC News Magazine*, 5 July. Available at: <http://news.bbc.co.uk/1/hi/magazine/8788780.stm> (Accessed: 17 August 2011).

Catlow, R. (2015) 'Charlotte Webb on digital labour and The Work We Want', *Furtherfield*, 20 March. Available at: <http://furtherfield.org/netbehaviour/charlotte-webb-digital-labour-and-work-we-want> (Accessed: 20 March 2015).

chinorockwell (2009) *Phoenix – Lisztomania (SF BRAT PACK MASH UP)*. Available at: https://www.youtube.com/watch?v=GCzr7P5gqSI&feature=iv&src_vid=4BZ06Kwbi5s&annotation_id=annotation_602794 (Accessed: 6 March 2016).

Cloninger, C. (2009) *Commodify Your Consumption: Tactical Surfing / Wakes of Resistance* (pdf), Lab404. Available at: http://lab404.com/articles/commodify_your_consumption.pdf (Accessed: 25 April 2016).

Cohen, D. (2010) 'Some Notes on Heidegger's Question Concerning Technology (Ancient Technê and Modern Technology)', *Cybject blog*, 9 March. Available at: <https://cybject.wordpress.com/2010/03/09/some-notes-on-heidegger%E2%80%99s-question-concerning-technology-ancient-techne-and-modern-technology/> (Accessed: 5 June 2011).

Computers Club (no date) Available at: <http://www.computersclub.org/> (Accessed: 17 April 2016).

Connor, M. (2015) 'Notes on a definition of Net Art based on what I remember from a borrowed copy of Nettitudes', *Rhizome*, 17 July. Available at: <http://rhizome.org/editorial/2015/jul/17/notes-definition-net-art/> (Accessed: 27 October 2015).

Cont3xt.net (2009) 'Re: Interview #010: Writing about Zeros and Ones | Josephine Bosma', *Cont3xt.net*. Available at: <http://cont3xt.net/blog/?p=1717> (Accessed: 27 October 2015).

Cook, S. (2003) 'What would Artificial Intelligence find aesthetically pleasing? The burning question of generative art and its audience', *NAG*. Available at: http://net.art-generator.com/src/cook_eng.html (Accessed: 25 August 2011).

Cornelia Sollfrank's '*net.art generator*' as *Collectors Object* (2004) Available at: <http://rhizome.org/discuss/view/11884/> (Accessed: 25 August 2011).

Creative Commons (no date) *About The Licences*. Available at: <https://creativecommons.org/licenses/> (Accessed: 24 May 2016).

Critchley, S. (2009) 'Being and Time, part 1: Why Heidegger matters', *Guardian*, 8 June. Available at: <http://www.theguardian.com/commentisfree/belief/2009/jun/05/heidegger-philosophy> (Accessed: 8 May 2016).

DACS (2016) *Fair use: copyright differences in the UK and US*. Available at: <https://www.dacs.org.uk/latest-news/us-fair-use-uk-fair-dealing-differences-law?category=For+Artists&title=N> (Accessed: 21 March 2016).

- Denny Gallery (2015) *Share this! Appropriation After Cynicism*. Available at: <http://dennygallery.com/exhibitions/share-this-appropriation-after-cynicism/> (Accessed: 7 July 2015).
- Dewey, C. (2014) 'The surprising sociology of selfies', *Washington Post*, 20 February. Available at: <http://www.washingtonpost.com/blogs/style-blog/wp/2014/02/20/the-surprising-sociology-of-selfies/> (Accessed: 27 July 2015).
- Digital Methods Initiative (2008) *Digital Methods Initiative*. Available at: <https://wiki.digitalmethods.net/Dmi/MoreIntro> (Accessed: 12 March 2012).
- Digital Methods Initiative (2009) (*no title*). Available at: <https://wiki.digitalmethods.net/> (Accessed: 22 March 2016).
- Doctorow, C. (2008) 'Cory Doctorow: Why I Copyfight', *Locus Magazine*, 6 November. Available at: <http://www.locusmag.com/Features/2008/11/cory-doctorow-why-i-copyfight.html> (Accessed: 14 October 2014).
- Doctorow, C. (2011) *Cory Doctorow – The Politics of Copyright and the New Cultural Economy*, Available at: <https://www.youtube.com/watch?v=lpXZnxuRcJo> (Accessed: 8 May 2016).
- doedeer (2015) (*no title*). Available at: <https://www.instagram.com/p/2ygLRoR2hV/> (Accessed: 20 May 2016).
- Dresscher-Lambertus, N., Petkova, S., Renzini, T. *et al.* (2012) *The Life of an Image (on Tumblr)*. Available at: <https://wiki.digitalmethods.net/Dmi/ImageLife> (Accessed: 22 March 2016).
- Dresscher-Lambertus, N., Petkova, S., Renzini, T. *et al.* (2013b) *Hashtagtics – A Study of Image Hashtagging Strategies on Instagram*. Available at: <https://wiki.digitalmethods.net/Dmi/Winter13Hashtagtics> (Accessed: 22 March 2016).
- Droitcour, B. (2009) 'Members Only: Loshadka Surfs the Web', *Art in America*, 19 March. Available at: <http://www.artinamericamagazine.com/news-features/news/loshadka-surfing-club/> (Accessed: 12 April 2015).
- Droitcour, B. (2014) 'THE PERILS OF POST-INTERNET ART', *Art in America*, 30 October. Available at: <http://www.artinamericamagazine.com/news-features/magazine/the-perils-of-post-internet-art/> (Accessed: 27 October 2015).
- Dullaart, C. (2014) 'Untitled', *PASTEBIN*, 29 January. Available at: <http://pastebin.com/f9g7CR75> (Accessed: 20 July 2015).

Dzieza, J. (2014) 'The strange world of computer-generated novels', *The Verge*, 25 November. Available at: <http://www.theverge.com/2014/11/25/7276157/nanogenmo-robot-author-novel> (Accessed: 17 November 2015).

Electronic Frontier Foundation (2014) *Computer Scientists Ask Supreme Court to Rule APIs Can't Be Copyrighted*. Available at: <https://www.eff.org/press/releases/computer-scientists-ask-supreme-court-rule-apis-cant-be-copyrighted> (Accessed: 2 December 2014).

European Commission (no date) *The Onlife Manifesto; Being human in a hyperconnected era* (pdf), European Commission. Available at: <https://ec.europa.eu/digital-agenda/sites/digital-agenda/files/Manifesto.pdf> (Accessed: 21 June 2013).

Fausing, B. (2013a) 'Selfie and the Search for Recognition: See for your selfie', *Scribd*. Available at: <https://www.scribd.com/doc/167602342/Selfies-and-the-Search-for-Recognition-See-for-your-Selfie> (Accessed: 8 May 2016).

Fausing, B. (2013b) *Become An Image-On Selfies, Visuality and the Visual Turn in Social Medias*. Available at: https://www.academia.edu/7955114/Fausing_B_2013_Become_an_Image-On_Selfies_Visuality_and_the_Visual_Turn_in_Social_Medias (Accessed: 8 May 2016).

FB Resistance (2013) *FB Resistance The code is the law. Let's hack it!*. Available at: <http://www.fbresistance.com> (Accessed: 8 October 2012).

Friedman, S. (2011) *To Collect*. Available at: http://www.moma.org/explore/inside_out/2011/10/20/to-collect (Accessed: 7 August 2016).

Frost, C. (2010) 'ART HISTORY 2.0: DIGITAL ART HASHTAGS', *Digital Critic*, 27 February. Available at: <http://digitalcritic.org/2010/02/art-history-2-0-digital-art-hashtags/> (Accessed: 8 May 2016).

Fuchs, C. (2014b) *Christian Fuchs: The Digital Labour Theory of Value and Karl Marx in the Age of Facebook, YouTube, Twitter and Weibo*. Available at: <http://vimeo.com/98719144> (Accessed: 14 November 2014).

Gagosian Gallery (2014) *RICHARD PRINCE NEW PORTRAITS SEPTEMBER 19 - OCTOBER 24, 2014*. Available at: <http://www.gagosian.com/exhibitions/richard-prince--september-19-2014> (Accessed: 20 May 2016).

- Galanter, P. (no date) *Generative art wiki*. Available at: <http://philipgalanter.com/resources/#genartwiki> (Accessed: 3 September 2011).
- Ghidini, M. (2012) 'Appropriating Web Interfaces: From the Artist As DJ to the artist As Externalizer', *Journal of the New Media Caucus*, 8 (2). Available at: http://chertberlin.files.wordpress.com/2013/01/new-media-caucus_-_appropriating-web-interfaces_-_from-the-artist-as-dj-to-the-artist-as-externalizer.pdf (Accessed: 13 January 2013).
- Ginev, D. (2010) 'Heidegger's Technologies Postphenomenological Perspectives'. Reviewed by Dimitri Ginev, University of Sofia. *Notre Dame Philosophical Reviews*. Available at: <http://ndpr.nd.edu/review.cfm?id=22570> (Accessed: 9 June 2011).
- GNIP (2015) *All the Social Data You Need Under One Roof*. Available at: <https://gnip.com/sources/> (Accessed: 15 February 2015).
- Goldsmiths, University of London (2012) *Digital Societies: between Ontology and Methods*. Available at: <http://www.gold.ac.uk/cisp/events/digital-societies/> (Accessed: 8 May 2016).
- Gorton, T. (2014) 'Watch a livestream of every #selfie posted on Instagram; At last, a bearable way to look at selfies – really, really quickly', *Dazed*, 11 April. Available at: <http://www.dazeddigital.com/artsandculture/article/19554/1/watch-a-livestream-of-every-selfie-posted-on-instagram> (Accessed: 13 April 2014).
- Gram, S. (2013) 'The Young-Girl and the Selfie', *TEXTUAL RELATIONS*, 1 March. Available at: <http://text-relations.blogspot.co.uk/2013/03/the-young-girl-and-selfie.html> (Accessed: 27 April 2014).
- Hamilton, J. (2011a) *Hypergeography*. Available at: <http://hypergeography.tumblr.com/> (Accessed: 20 June 2012).
- Hamilton, J. (2011b) (*no title*). Available at: <http://hypergeography.tumblr.com/post/43603628499/capacitytolove-x2mx> (Accessed: 24 May 2016).
- Hamilton, J. (2011c) (*no title*). Available at: <http://hypergeography.tumblr.com/post/20819542600/x2mx-productlaneevol-productlaneevol> (Accessed: 24 May 2016).
- Hamilton, J. (2011d) *Hyper Geography*. Available at: <https://vimeo.com/31768818> (Accessed: 23 April 2016).

Hansen, J., Luers, W., Alizadeh, S. *et al.* (2013) *A STUDY GUIDE TO PROGRAM OR BE PROGRAMMED: TEN COMMANDMENTS FOR A DIGITAL AGE* (pdf), Washington State University Vancouver. Available at: <http://dct-wsuv.org/hashnextchapter/wp-content/uploads/2013/03/Rushkoff-Study-Guide.pdf> (Accessed: 17 January 2015).

Hansen, M. T. (2010) 'IDEO CEO Tim Brown: T-Shaped Stars: The Backbone of IDEO's Collaborative Culture'. *Chief Executive*, 21 January. Available at: <http://chiefexecutive.net/ideo-ceo-tim-brown-t-shaped-stars-the-backbone-of-ideoae%E2%84%A2s-collaborative-culture/> (Accessed: 9 November 2015).

Hargreaves, I. (2011) *Digital Opportunity: A Review of Intellectual Property and Growth* (pdf), Gov.uk. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32563/ipreview-finalreport.pdf (Accessed: 15 July 2016).

Harikumar, M. K. (2009) 'Interview with Alan Kirby by M K Harikumar', *MK Harikumar*, 2 June. Available at: <http://newsmk-harikumar.blogspot.co.uk/2009/06/interview-with-alan-kirby-by-m-k.html> (Accessed: 11 June 2016).

Hebel, K. (no date) 'Where is the art happening here? A few thoughts on the net.art generator with respect to Sarah Cook', *Netart Generator*. Available at: http://net.art-generator.com/src/cook_eng.html (Accessed: 7 September 2011).

Helmond, A. (2010) 'On the Evolution of Methods: Banditry and the Volatility of Methods', *Anne Helmond*, 17 May. Available at: <http://www.annehelmond.nl/2010/05/17/on-the-evolution-of-methods-banditry-and-the-volatility-of-methods/> (Accessed: 9 November 2015).

Henry, J. (2015) 'Querying the new appropriation art: is this cynicism?', *MOMUS*, 8 January. Available at: <http://momus.ca/querying-the-new-appropriation-art-is-this-cynicism/> (Accessed: 6 July 2015).

Herman, J. (2014) 'What Are Your Limits on Instagram?', *Jenn's Trends in Social Media Management*, 12 May. Available at: <http://jennstrends.com/limits-on-instagram/> (Accessed: 12 May 2014).

Herriman, N. (2013) *Structure & Agency: 25 Concepts in Anthropology*. Available at: <https://www.youtube.com/watch?v=HClt1561gu8> (Accessed: 28 September 2015).

Hochrieser, S., Kargel, M. & Thalmair, F./CONT3XT.NET. (2009) 'Trans.form.work-Net art in the real space' (pdf), in Prada, J. M. *et al.* *Inclusiva-net: net.art (second epoch). The evolution of artistic creation in the net system*. Available at: <http://medialab-prado.es/mmedia/2/2496/2496> pp. 47–61.

Howe, J. (2006) 'The Rise of Crowdsourcing', *Wired*, 1 June. Available at: http://www.wired.com/wired/archive/14.06/crowds.html?pg=1&topic=crowds&topic_set (Accessed: 15 January 2012).

Huff, J. (2011) 'Reframing Tumblr: Hyper Geography', *Rhizome*, 13 September. Available at: <http://rhizome.org/editorial/2011/sep/13/hypergeography/> (Accessed: 17 September 2011).

Huhtamo, E. (2004) *Trouble at the Interface, or the Identity Crisis of Interactive Art* (pdf), MEDIA ART HISTORY. Available at: <http://www.mediaarthistory.org/refresh/Programmatic%20key%20texts/pdfs/Huhtamo.pdf> (Accessed: 13 December 2013).

Hyperallergic (2014) *The World's First Tumblr Art Symposium*. Available at: <http://hyperallergic.com/tumblrart/> (Accessed: 16 July 2015).

Iconosquare (2016) *Result for selfie*. Available at: <http://iconosquare.com/search/selfie> (Accessed: 16 February 2016).

Instagram (2013a) *Privacy Policy*. Available at: <http://instagram.com/about/legal/privacy/> (Accessed: 31 March 2014).

Instagram (2013b) *Terms of Use*. Available at: <http://instagram.com/legal/terms/> (Accessed: 31 March 2014).

Instagram (2014a) *Authentication*. Available at: <http://instagram.com/developer/authentication/> (Accessed: 11 August 2014).

Instagram (2014b) *Platform Policy*. Available at: <http://instagram.com/about/legal/terms/api/> (Accessed: 31 March 2014).

Instagram (2014c) *Press News*. Available at: <http://instagram.com/press/> (Accessed: 12 August 2014).

Institute of Network Cultures (2013a) *Unlike Us #3 Social media: design or decline*. Available at: <http://networkcultures.org/unlikeus/> (Accessed: 29 June 2015).

Institute of Network Cultures (2013b) *Unlike Us #3 Social media: design or decline: About*. Available at: <http://networkcultures.org/unlikeus/about/> (Accessed: 29 June 2015).

Intellectual Property Office (2014a) *Copyright Notice: digital images, photographs and the internet* (pdf), Gov.uk. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/481194/c-notice-201401.pdf (Accessed: 7 August 2016).

Intellectual Property Office (2014b) *Exceptions to copyright: an overview* (pdf), Gov.uk. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/448269/Exceptions_to_copyright_-_An_Overview.pdf (Accessed: 7 August 2016).

Invisible Children (2014) *Kony 2012 Invisible Children*. Available at: <http://invisiblechildren.com/kony-2012/> (Accessed: 9 November 2015).

IPKat (2015) 'The CJEU Hyperlinks Trilogy: Part III, C-279/13 C More Entertainment', *TheIPKat*, 24 March. Available at: <http://ipkitten.blogspot.co.uk/2015/03/the-cjeu-hyperlinks-trilogy-part-iii-c.html> (Accessed: 19 May 2016).

IPKat (2016) 'AG Wathelet: linking to unlicensed content should not be a copyright infringement per se', *TheIPKat*, 7 April. Available at: <http://ipkitten.blogspot.co.uk/2016/04/ag-wathelet-linking-to-unlicensed.html> (Accessed: 19 May 2016).

Ippolito, J. (2002) '10 Myths of Internet Art', *New York Digital Salon*. Available at: <http://www.nydigitalsalon.org/10/essay.php?essay=6> (Accessed: 26 November 2012).

Irvine, M. (2004) *Mikhail Bakhtin: Main Theories Dialogism, Polyphony, Heteroglossia, Open Interpretation: A Student's Guide by Martin Irvine*. Available at: <http://www9.georgetown.edu/faculty/irvinem/theory/bakhtin-maintheory.html> (Accessed: 6 May 2013).

Jackson, M. & Webb, C. (2011) *Jacksonwebb.com*. Available at: <http://www.jacksonwebb.com> (Accessed: 22 March 2016).

James, D. (2012) 'What is the difference between web-crawling and web-scraping?', *stackoverflow*, 21 June. Available at: <http://stackoverflow.com/questions/4327392/what-is-the-difference-between-web-crawling-and-web-scraping> (Accessed: 16 December 2014).

Järvillehto, L. (2011) *The Coming Social Singularity* (pdf), EXTENDED MIND: BLOG. Available at: <http://theextendedmind.files.wordpress.com/2011/03/the-coming-social-singularity.pdf> (Accessed: 11 May 2011).

Jean Boîte Éditions (2014) *Hyper Geography Joe Hamilton*. Available at: <http://www.jean-boite.fr/box/hyper-geography> (Accessed: 29 June 2015).

Johari, R. (2007) *TCP, IP and the alphabet soup* [Podcast], 25 June. Available at: <https://itunes.apple.com/WebObjects/MZStore.woa/wa/viewPodcast?id=384229952#ls=1> (Accessed: 16 February 2015).

Johnson, P. (2014) 'Finally, a Semi-Definitive Definition of Post-Internet Art', *ARTFCITY*, 14 October. Available at: <http://artfcity.com/2014/10/14/finally-a-semi-definitive-definition-of-post-internet-art/> (Accessed: 27 July 2015).

Jones, J. (2008) 'Reinventing the wheel', *Guardian*, 9 February. Available at: <http://www.theguardian.com/books/2008/feb/09/art> (Accessed: 7 July 2015).

Jones, J. (2013) 'Don't hate the woman behind the "world's worst selfie"', *Guardian*, 5 December. Available at: <http://www.theguardian.com/commentisfree/2013/dec/05/dont-hate-woman-worlds-worst-selfie-suicidal-figure-brooklyn-bridge> (Accessed: 22 May 2016).

Kawashima, T. (2008) 'Takashi Kawashima, unleashed' (pdf), *Creativity Magazine*. Available at: <http://www.tenthousandcents.com/news/creativitymagazine.pdf> (Accessed: 21 July 2015).

Keegan, B. (2013) 'Call for Papers: Int'l Conference on Weblogs and Social Media (ICWSM-14)', *Association of Internet Researchers mailing list*, 13 November. Available email: air-l@listserv.aoir.org.

Kelly, K. (2007) *The next 5,000 days of the web*. Available at: https://www.ted.com/talks/kevin_kelly_on_the_next_5_000_days_of_the_web?language=en (Accessed: 9 May 2016).

Kinsella, E. (2016) 'Outraged Photographer Sues Gagosian Gallery and Richard Prince for Copyright Infringement', *Artnet news*, 4 January. Available at: <https://news.artnet.com/market/donald-graham-sues-gagosian-richard-prince-401498> (Accessed: 19 June 2016).

Kinsey, C. (no date) *Art After the Internet*. Available at: <https://artaftertheinternet.wordpress.com/> (Accessed: 27 July 2015).

Koh, Y. (2014) 'Twitter Paid \$134 Million for Data Partner Gnip', *Wall Street Journal*, 11 August. Available at: <http://blogs.wsj.com/digits/2014/08/11/twitter-paid-134-million-for-data-partner-gnip/>.

Kolowich, L. (2016) '15 Hidden Instagram Hacks & Features Everyone Should Know About', *HubSpot*, 19 January. Available at: <http://blog.hubspot.com/marketing/instagram-features-tricks#sm.001n99g6ryzhd7f10fk1vd0qfn6ph> (Accessed: 15 May 2016).

KonstantinSviridov (2015) raml-apis/Instagram. Available at: <https://github.com/raml-apis/Instagram/blob/master/docs/authentication.md> (Accessed: 24 August 2016).

Kravets, D. (2014) 'API copyrights a "threat" to tech sector, scientists tell Supreme Court', *Ars Technica*, 9 November. Available at: <http://arstechnica.com/tech-policy/2014/11/api-copyrights-a-threat-to-tech-sector-scientists-tell-supreme-court/> (Accessed: 2 December 2014).

Language is a Virus (2016) *William S. Burroughs Cut-ups*. Available at: http://www.languageisavirus.com/articles/articles.php?subaction=showcomments&id=1099111044&archive=&start_from=&ucat=&#.VP7_Y7OsVrk (Accessed: 10 March 2015).

Larios, J. (no date) *Deconstructing Constructivism: Foucaultist power relations and social Realism*. Available at: <http://www.elsewhere.org/pomo/> (Accessed: 17 April 2016). *Please note: the title of this page changes as it is generated whenever a user visits the page.

Latour, B. (1997) *The trouble with Actor-Network Theory*. Available at: <http://www.bruno-latour.fr/node/379> (Accessed: 5 January 2011).

Law Offices of Craig Delsack, L. (2012) *Who Owns Photos and Videos Posted on Facebook, Instagram or Twitter?* Available at: <http://www.nyccounsel.com/business-blogs-websites/who-owns-photos-and-videos-posted-on-facebook-or-twitter/> (Accessed: 31 March 2014).

Lessig, L. (2007) *Laws that choke creativity*. Available at: https://www.ted.com/talks/larry_lessig_says_the_law_is_strangling_creativity (Accessed: 6 March 2016).

Lessig, L. (2010) *Re-examining the remix*. Available at: https://www.ted.com/talks/lessig_nyed (Accessed: 6 March 2016).

Lialina, O. (2012) *Turing Complete User*. Available at: <http://contemporary-home-computing.org/turing-complete-user/> (Accessed: 06 January 2013).

- Losh, E. (no date) *Beyond Biometrics: Feminist Media Theory Looks at Selfiecity*. Available at: https://www.academia.edu/6132660/Beyond_Biometrics_Feminist_Media_Theory_Looks_at_Selfiecity (Accessed: 9 May 2016).
- Loshadka/blog (no date) Available at: <http://www.loshadka.org/wp> (Accessed: 17 April 2016).
- Lovink, G. (2008) 'The society of the query and the Googlization of our lives: A tribute to Joseph Weizenbaum', *Eurozine*, 9 May. Available at: <http://www.eurozine.com/articles/2008-09-05-lovink-en.html> (Accessed: 3 December 2013).
- Macleod, H. (2008) 'Why the "social object" is the future of marketing', *gapingvoid*, 2 January. Available at: <http://gapingvoid.com/blog/2008/01/02/why-the-social-object-is-the-future-of-marketing/> (Accessed: 24 June 2013).
- Manovich, L. (2011a) 'How do you a call a person who is interacting with digital media?', *Software Studies Initiative*, 19 July. Available at: <http://lab.softwarestudies.com/2011/07/how-do-you-call-person-who-is.html> (Accessed: 9 May 2016).
- Manovich, L. (2011b) *Media Visualization: Visual Techniques for Exploring Large Media Collections* (pdf), Manovich.net. Available at: <http://Manovichh.net/content/04-projects/069-media-visualization-visual-techniques-for-exploring-large-media-collections/66-article-2011.pdf> (Accessed: 16 May 2016).
- Manovich, L. (2014) 'MEDIA VISUALIZATION: HOW TO SEE 1 MILLION IMAGES'. *VISUALIZED*. Available at: <http://visualized.com/2014/presents/lev-Manovichh/> (Accessed: 9 May 2016).
- Manovich, L. & Kratky, A. (2002) *SOFT CINEMA: AMBIENT NARRATIVE*. Available at: www.softcinema.net (Accessed: 7 September 2011).
- Manovich L., Stefaner, M., Yazdani, M. *et al.* (2014) *Selfiecity*. Available at: <http://selfiecity.net/> (Accessed: 26 March 2016).
- Marshall, D. (2013) 'Agency and Structure'. Available at: <https://www.youtube.com/watch?v=d51dmlzqVGE> (Accessed 28 September 2015).
- Matteo, G. (no date) *Sony HD*. Available at: <http://sonyhd.tumblr.com/> (Accessed: 27 July 2015).
- McCooney, B. (2010a) 'Law of Value – Introduction'. *Kapitalism101*, 28 April. Available at: <https://kapitalism101.wordpress.com/2010/04/28/law-of-value-introduction/> (Accessed: 5 May 2011).

- McCooney, B. (2010b) 'The Law of Value 2: The Fetishism of Commodities', *Kapitalism101*, 5 May. Available at: <http://kapitalism101.wordpress.com/2010/05/05/the-law-of-value-2-the-fetishism-of-commodities/> (Accessed: 5 May 2011).
- Media Ecology Association (2009) *What is Media Ecology?*. Available at: http://www.media-ecology.org/media_ecology/index.html (Accessed: 2 November 2014).
- Metropolitan Museum of Art (2000–2016) *After Walker Evans: 4*. Available at: <http://www.metmuseum.org/art/collection/search/267214> (Accessed: 2 August 2016).
- Miller, A. (no date) *LACAN CAT: FASHION AND PSYCHOANALYSIS*. Available at: <http://lacancat.tumblr.com/> (Accessed: 15 February 2016).
- Missy (2015) 'RICHARD PRINCE SUICIDEGIRL PRINTS', *Suicide Girls*, 26 May. Available at: <https://www.suicidegirls.com/members/missy/blog/2837632/tuesday/> (Accessed: 20 May 2016).
- MoMA Learning (no date) *Pop Art*. Available at: https://www.moma.org/learn/moma_learning/themes/pop-art/appropriation (Accessed: 9 August 2016).
- Moody, T. (2010) 'Surf Art Continuity', tom moody, 9 May. Available at: <https://www.tommoody.us/archives/2010/05/09/surf-art-continuity/> (Accessed: 12 April 2015).
- Müller, D. (2012) 'Ambient Natures', *Frieze*, 29 May. Available at: <https://www.frieze.com/article/ambient-natures> (Accessed: 29 June 2015).
- Museum of Modern Art (2014) *Christian Boltanski (French, Born 1944)*. Available at: <http://www.moma.org/collection/artists/649?locale=en> (Accessed: 20 October 2014).
- Nasty nets internet surfing club* (2012) Available at: <http://archive.rhizome.org/artbase/53981/nastynets.com/> (Accessed: 17 April 2016).
- National Science Foundation (2011) *Award Abstract #1054630 CAREER: Online Education as a Vehicle for Human Computation*. Available at: <http://www.nsf.gov/awardsearch/showAward.do?AwardNumber=1054630> (Accessed: 27 February 2012).

- Normative (2010) *The Evolution of Remix Culture*. Available at: <https://www.youtube.com/watch?v=4BZ06Kwbi5s> (Accessed: 6 March 2016).
- O'Hara, D. & Mason, L. R. (2012) 'How bots are taking over the world', *Guardian*, 30 March. Available at: <http://www.guardian.co.uk/commentisfree/2012/mar/30/how-bots-are-taking-over-the-world> (Accessed: 1 April 2012).
- Olson, M. (2009) 'Conference Report: NET.ART (SECOND EPOCH)', *Rhizome*, 9 March. Available at: <http://rhizome.org/editorial/2009/mar/9/conference-report-netart-second-epoch/> (Accessed: 27 October 2015).
- Olson, M. (2011) 'Postinternet: art after the internet', *Foam*, 29, pp. 59–63. Available at: http://www.marisaolson.com/texts/POSTINTERNET_FOAM.pdf (Accessed: 27 October 2015).
- Orregia, E. (2010) *Virtual Entity*. Available at: <http://virtualentity.org/> (Accessed: 5 February 2010).
- Osborne Clark (2015) 'Consumer data and the complex world of data ownership', *Osborne Clark*, 16 October. Available at: <http://www.osborneclarke.com/connected-insights/blog/consumer-data-and-complex-world-data-ownership/> (Accessed: 8 March 2016).
- Oxford Dictionaries (2013) 'Oxford Dictionaries Word of the Year 2013: SELFIE', *OxfordWords Blog*, 19 November. Available at: <http://blog.oxforddictionaries.com/press-releases/oxford-dictionaries-word-of-the-year-2013/> (Accessed: 13 April 2014).
- Parish, N. (2008) 'Takashi Kawashima, Unleashed', *Advertising Age*, 21 May. Available at: <http://adage.com/article/unleashed/takashi-kawashima-unleashed/127073/> (Accessed: 20 February 2012).
- Parkinson, H. J. (2015) 'Instagram, an artist and the \$100,000 selfies – appropriation in the digital age', *Guardian*, 18 July. Available at: <https://www.theguardian.com/technology/2015/jul/18/instagram-artist-richard-prince-selfies> (Accessed: 20 May 2016).
- Parrish, A. (2016) *Reading and Writing Electronic Text: ITP Spring 2016*. Available at: <http://rwet.decontextualize.com/> (Accessed: 17 April 2016).
- Pasori, C. (2013) 'Interview: Joe Hamilton Talks Tumblr, Hypergeography, and Digital Art', *COMPLEX*, 21 June. Available at: <http://uk.complex.com/style/2013/06/interview-joe-hamilton> (Accessed: 29 June 2015).

- Price, R. (2015) 'An artist is making \$100,000 a pop off other people's Instagram photos – and it could be totally legal', *Business Insider UK*, 22 May. Available at: <http://uk.businessinsider.com/richard-lewis-instagram-photos-100000-dollars-new-york-new-portraits-copyright-2015-5> (Accessed: 20 May 2016).
- Price, S. (2002) *Dispersion* (pdf), Distributed History. Available at: <http://www.distributedhistory.com/Dispersion2016.pdf> (Accessed: 9 May 2016).
- Quaranta, D. (2011) 'The Postmedia Perspective', *Rhizome*, 12 January. Available at: <http://rhizome.org/editorial/2011/jan/12/the-postmedia-perspective/> (Accessed: 19th November 2011).
- Rajski, B. (2010) 'Tiziana Terranova: Network Culture (2004)', *The Voice Imitator Bibliography as Biography*, 4 July. Available at: <http://voiceimitator.blogspot.co.uk/2010/07/tiziana-terranova-network-culture-2004.html> (Accessed: 29 April 2012).
- Raphael (no date) 'Surfing clubs: Liste non exhaustive des blogs d'art collaborative'. Available at: <http://www.camangepasdepain.net/2009/04/17/surfing-clubs-list-blogs-collaboratifs-netart-et-alentours/> (Accessed: 26 July 2015).
- Richards, M. (2013) *Virtual Verbs*. Available at: <http://www.virtualverbs.com/> (Accessed: 25 June 2014).
- Robinson, A. (2011) 'In Theory Bakhtin: Dialogism, Polyphony and Heteroglossia', *Ceasefire*, 29 July. Available at: <http://ceasefiremagazine.co.uk/in-theory-bakhtin-1/> (Accessed: 4 May 2013).
- Rogers, R. (2009b) *The End of the Virtual – Digital Methods* (pdf), Govcom.org. Available at: http://www.govcom.org/publications/full_list/oratie_Rogers_2009_preprint.pdf (Accessed: 15 June 2012).
- Rosen, J. (2011) 'The People Formerly Known as the Audience', *Huffington Post*, 25 May. Available at: http://www.huffingtonpost.com/jay-rosen/the-people-formerly-known_1_b_24113.html (Accessed: 26 July 2015).
- Rothenburg, S. (no date) Laborers of Love/LOL. Available at: <https://vimeo.com/38478483> (Accessed: 27 July 2015).
- Royal Shakespeare Company (no date) *Infinite Violets by Charlotte Elizabeth Webb*. Available at: <http://myshakespeare.rsc.org.uk/gallery/infinite-violets-by-charlotte-elizabeth-webb/> (Accessed: 24 May 2016).

Rundle, M. (2012) 'Instagram Asserts Right To Sell Users' Photos, Leading To Online Outcry', *Huffington Post*, 18 December. Available at: http://www.huffingtonpost.co.uk/2012/12/18/instagram-asserts-right-to-sell-photos_n_2320590.html (Accessed: 2 May 2016).

Saltz, J. (2014) 'Art at Arm's Length: A History of the Selfie', *Vulture*, 26 January. Available at: <http://www.vulture.com/2014/01/history-of-the-selfie.html> (Accessed: 12 January 2015).

Samson, T. (2012) 'IMITATIVE INVENTION', *Mute Magazine*, 16 October. Available at: <http://www.metamute.org/community/reviews/imitative-invention> (Accessed: 24 June 2013).

Sarowski, R. & Fischer, U. (no date) *curating YouTube ABOUT*. Available at: <http://www.curatingyoutube.net/about/> (Accessed: 27 July 2015).

Scholfeld, E. (2011) '(Founder Stories) Why David Karp Started Tumblr: Blogs Don't Work for Most People', *TechCrunch*, 21 February. Available at: <http://techcrunch.com/2011/02/21/founder-stories-why-david-karp-started-tumblr-blogs-dont-work-for-most-people/> (Accessed: 21 August 2012).

Shepherd, B. (2016) 'Affect', *The Chicago School of Media Theory*. Available at: <https://lucian.uchicago.edu/blogs/mediatheory/keywords/affect/> (Accessed: 15 February 2016).

Shirky, C. (2005) *Ontology is overrated: Categories, Links, and Tags*. Available at: http://shirky.com/writings/ontology_overrated.html (Accessed: 2 December 2013).

Slavin, K. (2011) *Kevin Slavin: How algorithms shape our world*. Available at: https://www.ted.com/talks/kevin_slavin_how_algorithms_shape_our_world?language=en (Accessed: 24 May 2016).

Slocum, P. (2016) 'CATALOG OF INTERNET ARTIST CLUBS', *Rhizome*, 30 March. Available at: <http://rhizome.org/editorial/2016/mar/30/catalog-of-internet-artist-clubs/> (Accessed: 17 April 2016).

SMC2016 (2016) *SMC 2016 IEEE INTERNATIONAL CONFERENCE ON SYSTEMS, MAN, AND CYBERNETICS OCTOBER 9-12*. Available at: <http://smc2016.org/node/9> (Accessed: 9 August 2016).

Smith, G. (2014) 'Svensson – free to link or link at your risk?', *Cyberleagle*, 18 February. Available at: <http://cyberleagle.blogspot.co.uk/2014/02/svensson-free-to-link-or-link-at-your.html> (Accessed: 27 July 2014).

Smith, G., Sherrell, P. & Smith, W. (2014) 'CJEU decision in Svensson – Hyperlinks to freely available content are permitted', *Bird&Bird*, 13 February. Available at: <http://www.twobirds.com/en/news/articles/2014/global/cjeu-decision-in-svensson-hyperlinks-to-freely-available-content> (Accessed: 19 May 2016).

Software Studies Initiative (no date) *The Exceptional and the Everyday: 144 hours in Kiev*. Available at: <http://www.the-everyday.net/> (Accessed: 1 September 2015).

Sollfrank, C. (no date a) *A smart artist makes the machine do the work, net.art generator: Project description*. Available at: http://artwarez.org/projects/nagBOOK/texte/cs1_eng.html (Accessed: 25 August 2011).

Sollfrank, C. (no date b) *NAG Generators: images*. Available at: <http://net.art-generator.com/src/imgs.html> (Accessed: 17 April 2016).

Southbank Centre (2015) *GLASSHOUSE – THE WORK WE WANT*. Available at: <http://www.southbankcentre.co.uk/whatson/glasshouse-the-work-we-want-1000964> (Accessed: 28 March 2016).

Spies, A. (2014) 'Do hyperlinks infringe copyright? The CJEU considers the question in Svensson, but how does this compare to Australia?', *IP Whiteboard*, 24 February. Available at: <http://www.ipwhiteboard.com.au/do-hyperlinks-infringe-copyright-the-cjeu-considers-the-question-in-svensson-but-how-does-this-compare-to-the-cases-australia/> (Accessed: 27 July 2014).

Stefaner, M. (2014) 'SELFIECITY: INVESTIGATING SELFIES USING A MIX OF THEORETIC, ARTISTIC, AND QUANTITATIVE METHODS', *VISUALIZED*. Available at: <http://visualized.com/2014/presents/moritz-stefaner/> (Accessed: 9 May 2016).

Swift, T. (2014) 'You are here: art after the internet reviewed', *aqnb*, 5 July. Available at: <http://www.aqnb.com/2014/05/07/you-are-here-art-after-the-internet-reviewed/> (Accessed: 3 February 2015).

System, K. (2012) 'Updated Terms of Service Based on Your Feedback', *Instagram*, 20 December. Available at: <http://blog.instagram.com/post/38421250999/updated-terms-of-service-based-on-your-feedback> (Accessed: 2 May 2016).

Tan, J. (2016) *Jack Tan law's imagination*. Available at: <https://jacktan.wordpress.com/2016/05/05/laws-imagination/> (Accessed: 12 July 2016).

thepinkbismuth (2009) *phoenix – lisztomania *brooklyn brat pack mashup**. Available at: https://www.youtube.com/watch?v=U1ywFh2AZLg&feature=iv&src_vid=4BZ06Kwbi5s&annotation_id=annotation_970244 (Accessed: 6 March 2016).

The Current (2013) *Selfies: Narcissistic, Empowering, or Just Fun?* *The Current*, 30 January. Available at: <http://www.cbc.ca/radio/thecurrent/selfies-narcissistic-empowering-or-just-fun-1.1470376> (Accessed: 7 August 2016).

The Selfies Research Network (2016) *The Selfies Research Network*, 22 April. Available at: <https://www.facebook.com/groups/664091916962292/> (Accessed: 23 April 2016).

The Space (2016a) *Hack the space*. Available at: <https://www.thespace.org/artwork/hack-space> (Accessed: 31 August 2016).

The Space (2016b) *Work We Want* <https://www.thespace.org/artwork/work-we-want> (Accessed: 31 August 2016).

The Thing (no date) *THE THING*. Available at: <http://the.thing.net/about/about.html> (Accessed: 1 December 2012).

Timme, F. (no date) *A Short Introduction to Cron Jobs*. Available at: <http://www.howtoforge.com/a-short-introduction-to-cron-jobs> (Accessed: 27 February 2016).

Troemel, B. (2013) 'Athletic aesthetics', *The New Inquiry*, 10 May. Available at: <http://thenewinquiry.com/essays/athletic-aesthetics/> (Accessed: 17 July 2015).

Tumblr (no date) *Tumblr*. Available at: <https://www.tumblr.com/about> (Accessed: 21 August 2012).

Tumblr (2015) *Community Guidelines*. Available at: <https://www.tumblr.com/policy/en/community> (Accessed: 24 November 2015).

Turkle, S. (2011) *Alone Together*. Available at: <https://www.thersa.org/discover/videos/event-videos/2011/06/alone-together/> (Accessed: 8 May 2016).

Turney, E. (2014) *A creative act in a digital space*. Available at: <http://www.thespace.org/news/view/featurefreddeakin> (Accessed: 18 January 2015).

University of Sheffield, Department of Sociological Studies (2016) *Data power conference; panel session 2b): data, art, media (Chair: Raul Ferrer Conill)*. Available at: <http://www.sheffield.ac.uk/socstudies/datapower/panel-25> (Accessed: 22 March 2016).

Valentine, B. (2013) 'Revisiting Tumblr as Art', *Hyperallergic*, 22 February. Available at: <http://hyperallergic.com/65674/revisiting-tumblr-as-art/> (Accessed: 16 July 2015).

Vierkant, A. (2010) *The Image Object Post-Internet* (pdf), jstchillin.org. Available at: http://jstchillin.org/artie/pdf/The_Image_Object_Post-Internet_a4.pdf (Accessed: 23 March 2014).

Vingiano, J. (2011a) *Blind Mist 2011*. Available at: <http://jonathanvingiano.com/work/blind-mist> (Accessed: 2 August 2016).

Vingiano, J. (2011b) *Echo parade 2011*. Available at: <http://jonathanvingiano.com/work/echo-parade> (Accessed: 17 April 2016).

Vionnet, C. (2009) *Photo Opportunities*. Available at: <http://www.corinnevionnet.com/-photo-opportunities.html> (Accessed: 20 August 2011).

von Ahn, L., Kediri, M. & Blum, M. (2006) *Verbosity: A Game for Collecting Common-Sense Facts* (pdf), Carnegie Mellon University, School of Computer Science. Available at: <http://www.cs.cmu.edu/~biglou/Verbosity.pdf> (Accessed: 27 February 2011).

W3C (2016) (*no title*). Available at: <http://www.w3.org/html/> (Accessed: 10 January 2016).

W3Schools (2016a) *CSS Tutorial*. Available at: <http://www.w3schools.com/css/default.asp> (Accessed: 11 January 2016).

W3Schools (2016b) *HTML <div> Tag*. Available at: http://www.w3schools.com/tags/tag_div.asp (Accessed: 27 February, 2016).

W3Schools (2016c) *JavaScript Tutorial*. Available at: <http://www.w3schools.com/js/default.asp> (Accessed: 11 January 2016).

W3Schools (2016d) *jQuery Tutorial*. Available at: <http://www.w3schools.com/jquery/> (Accessed: 11 January 2016).

W3Schools (2016e) *PHP 5 Tutorial*. Available at: <http://www.w3schools.com/php/default.asp> (Accessed: 11 January 2016).

Webb, C. (no date) *Making Work We Want*. Available at: <http://www.thespace.org/news/view/work-we-want-blog-southbank-centre> (Accessed: 28 March 2016).

webopedia (no date) *PHP*. Available at: <http://www.webopedia.com/TERM/P/PHP.html> (Accessed: 5 December 2013).

Westoll, A. (2011) *Crowdsourcing science: PhD student uses Facebook to identify thousands of fish*. Available at: <http://webapps.utoronto.ca/ose/story.php?id=2686> (Accessed: 27 February 2012).

Whitehead, V. (2012) 'Internet Art After Social Media (wiki, e-book)', *Rhizome*, 20 November. Available at: <http://rhizome.org/announce/opportunities/59069/view/> (Accessed: 9 May 2016).

Wired.co.uk (2012) "'The narcissism of social media": Relive Andrew Keen's Wired 2011 talk', *Wired.co.uk*, 1 October. Available at: <http://www.wired.co.uk/news/archive/2012-10/01/andrew-keen> (Accessed: 27 April 2014).

Zollers, A. (2007) *Emerging Motivations for Tagging: Expression, Performance, and Activism* (pdf), IW3C2. Available at: http://www2007.org/workshops/paper_55.pdf (Accessed: 9 May 2016).

Email, Communications and Mailing lists

Air-L – Association of Internet Researchers (no date) Available email: air-l@listserv.aoir.org (Accessed: 24 November 2015).

Instagram (2014d) Email to Charlotte Webb, 24 February.

NetBehaviour (no date) Available email: netbehaviour@netbehaviour.org (Accessed: 24 November 2015).

Nettime (no date) Available email: nettime-l@mail.kein.org (Accessed: 24 November 2015).

Unlike Us (no date) Available email: unlike-us@listcultures.org (Accessed: 7 August 2016).

Legal sources

Case C–160/15 *GS Media BV v Sanoma Media Netherlands BV and others* [2015], Opinion of AG Wathelet.

Case C-466/12 *Svensson v Retriever Sverige AB* [2014] All E.R. (EC) 609.

Copyright, Designs and Patents Act, 1988. Available at: <http://www.legislation.gov.uk/ukpga/1988/48/contents> (Accessed: 16 August 2016).

Council Directive 2001/29/EC of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society [2001] OJ L167/10 (InfoSoc Directive).

Theses

Bradfield, M. (2013) *Utterance and authorship in dialogic art: or an account of a barcamp in response to the question, what is dialogic art?*. PhD thesis, University of the Arts London. Available at: http://ualresearchonline.arts.ac.uk/6063/1/MBRADFIELD_Thesis_SPREAD_24_06_13.pdf (Accessed: 18 November 2014).

Edwards, M. D. (2010) *The digital self-portrait: a malleable image and a post-medium*. PhD thesis, University of the Witwatersrand, Johannesburg. Available at: <http://wiredspace.wits.ac.za/handle/10539/8305> (Accessed: 8 May 2016).

Graham, B. (1997) *A study of audience relationships with interactive computer-based visual artworks in gallery settings, through observation, art practice, and curation*. PhD thesis, University of Sunderland. Available at: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.476.6598&rep=rep1&type=pdf> (Accessed: 6 January 2016).

Sollfrank, C. (2011) *Performing the paradoxes of intellectual property: a practice-led investigation into the conflicting relationship between copyright and art*. PhD thesis, University of Dundee.

Conference papers and proceedings

boyd, D. & Crawford, K. (2011) 'Six provocations for big data'. Paper presented at the symposium *A Decade in Internet Time: Symposium on the Dynamics of the Internet and Society*, Oxford, UK.

Fiesler, C. & Bruckman, S. (2014) 'Remixers' understandings of fair use online', *CSCW'14*. Baltimore, Maryland, USA. Proceedings of the 17th ACM conference on Computer Supported Cooperative Work & Social Computing, pp. 1023–1032.

Hesmondhalgh, D. (2011) 'Free creative labour and exploitation', *Moral Economies of Creative Labour*, Institute of Communications Studies, University of Leeds, UK.

International Academic Forum (2013) *ECAH 2013 ECLL 2013*, 18–21 July 2013, Brighton, UK. Available at: http://iafor.org/archives/conference-programmes/ECAH_ECLL/ecah-ecll-2013.pdf (Accessed: 22 March 2016).

Losh, E. (2011) *Academic discourse and text generators languages, code, servers, and manifestos*. Available at: <http://thoughtmesh.net/publish/printable.php?id=368> (Accessed: 1 February 2016).

Mason, C. (2004) A computer in the art room, CHArt conference 2004, *Futures Past: Twenty Years of Arts Computing*. Available at: <http://www.catherinemason.co.uk/pdf/chart.pdf> (Accessed: 9 May 2016).

Vass, J. (2012) 'Does the internet "absorb" human subjectivity and sociality? The limitations of two current dynamic process models to answer this question', in *World Wide Web 2012*, Lyon, FR, 16–20 April, 2012. 5 pp.

Walker, J. (2005) 'Mirrors and shadows: the digital aestheticisation of oneself', Proceedings of *Digital Arts and Culture*, IT University of Copenhagen, 2005 pp. 184–190. Available at: <http://bora.uib.no/handle/1956/1136> (Accessed: 22 August 2016).

Wu, H., Zubair, M. & Maly, K. (2006) 'Harvesting social knowledge from folksonomies', in *HYPERTEXT '06*, Proceedings of the 17th conference on *Hypertext and Hypermedia*, Odense, Denmark, 22–25 August, 2006, pp. 111–114.

Exhibition Catalogues

Archev, K. & Peckham, R. (eds.) (2014) *Art post-internet*. Exhibition held at Ullens Center for Contemporary Art, Beijing, China, 1 March–11 May 2014 (Exhibition Catalogue). Available at: <http://www.post-inter.net/> (Accessed: 27 July 2015).

Grover, A. (2006) *Phantom captain: art and crowdsourcing*. Exhibition held at Apexart, New York, October–November 2006 (Exhibition Catalogue). Available at: <http://www.apexart.org/images/grover/groverbrochure.pdf> (Accessed: 20 June 2016).

Reichardt, J. (ed.) (1968) *Cybernetic serendipity: the computer and the arts*. Exhibition held at the Institute of Contemporary Art, London, 2 August–20 October 1968 (Exhibition Catalogue). London and New York: Studio International.

Artworks and Exhibitions

(no date) Available at: <http://www.nukekiller.net/poet/> (Accessed: 10 March 2015).

(no date) Available at: <http://mechanicalolympics.org/> (Accessed: 20 July 2015).

Adams, I. A. (no date) *Friendster Friday*. Available at: <http://www.friendsterfriday.com/> (Accessed 27 July 2015).

Arcangel, C. (2009) *Working on My Novel (Twitter Search)*. Available at: <http://www.coryarcangel.com/things-i-made/2012-066-working-on-my-novel/> (Accessed: 2 August 2016).

Arcangel, C. (2010a) *Sorry I Haven't Posted*. Available at: <http://www.coryarcangel.com/things-i-made/2010-020-sorry-i-havent-posted> (Accessed: 2 August 2016).

Arcangel, C. (2010b) *Sorry I Haven't Posted*. Available at: <http://sorry.coryarcangel.com/> (Accessed: 2 August 2016).

Arcangel, C. (2012–2014) *Working on My Novel (Twitter Account)*. Available at: <http://www.coryarcangel.com/things-i-made/2012-066-working-on-my-novel> (Accessed: 2 August 2016).

Arcangel, C. (2014) *Working on my novel (book)*. Available at: <http://novel.coryarcangel.com/> (Accessed: 2 August 2016).

Black, R. (no date) *The Random Surrealism Generator*. Available at: <http://www.ravenblack.net/random/surreal.html> (Accessed: 10 March 2015).

Edmunds, P. (2005–ongoing) *SwarmSketch*. Available at: <http://www.swarmsketch.com> (Accessed: 12 February 2012).

Hamilton, J. (2011) *Hypergeography*. Available at: <http://hypergeography.tumblr.com/> (Accessed: 20 June 2012).

Kalina, N. (2012) *Noah Takes a Picture of Himself Everyday for 12.5 Years*. Available at: <https://www.youtube.com/watch?v=iPPzXIMdi7o> (Accessed: 1 September 2014).

Karp, D., Hasty, N., Pastor, S. & Trecartin, R. (2010) *Riverofthe.net*. Available at: <http://riverofthe.net/> (Accessed: 2 August 2016).

Koblin, A. & Kawashima, T. (2008) *Ten Thousand Cents*. Available at: <http://www.tenthousandcents.com/> (Accessed: 26 February 2012).

Memmott, T. (2003) *Self Portraits as Others*. Available at: http://collection.eliterature.org/1/works/memmott_self_portraits_as_others.html (Accessed: 1 September 2015).

Sáez, C. & Maté, C. (no date) *Cloaque*. Available at: <http://cloaque.org/> (Accessed: 20 July 2015).

Sollfrank, C. (no date) :: *NAG :: Net.art generator*. Available at: <http://nag.iap.de/> (Accessed: 31 August 2011).

Sollfrank, C. (no date) *Net.art generator*. Available at: <http://net.art-generator.com/> (Accessed: 20 July 2015).

Throwing Perfume on Violets (2013) [Exhibition]. Blythe Gallery, London. 13 June–13 July.

Films

A Beautiful Mind (2001) Directed by Ron Howard [film]. Los Angeles: CA: Universal Pictures.

UAL (2015/16) *Code of practice on research ethics*. Available at: <http://www.arts.ac.uk/media/arts/research/research-degrees/Code-of-Practice-on-Research-Ethics.pdf> (Accessed: 21 March 2016).

Appendices

1. Webb, C. (2014) *Flickr Nude or Noodle Descending a Staircase* – main page iterations.
2. Webb, C. & Own-it (2014) Correspondence between Charlotte Webb and Own-it, 31 March–15 April 2014 (submitted through Own-it's online enquiry system).
3. Webb, C. (2014) IP clinic transcript.
4. McLean, A. (2014) Report written by Angus McLean, following Own-it IP clinic.
5. Webb, C. & Own-It (2016) Correspondence re: Instagram terms of use, between Silvia Baumgart (Own-it) and Charlotte Webb, 29 March–27 April 2016.

INTRODUCTION

METHODOLOGY

LITERATURE REVIEW

PRACTICE REVIEW

PRACTICE 1

PRACTICE 2

PRACTICE 3

PRACTICE 4

THE COPYRIGHT EPISODE

CONCLUSIONS

BIBLIOGRAPHY

APPENDICES

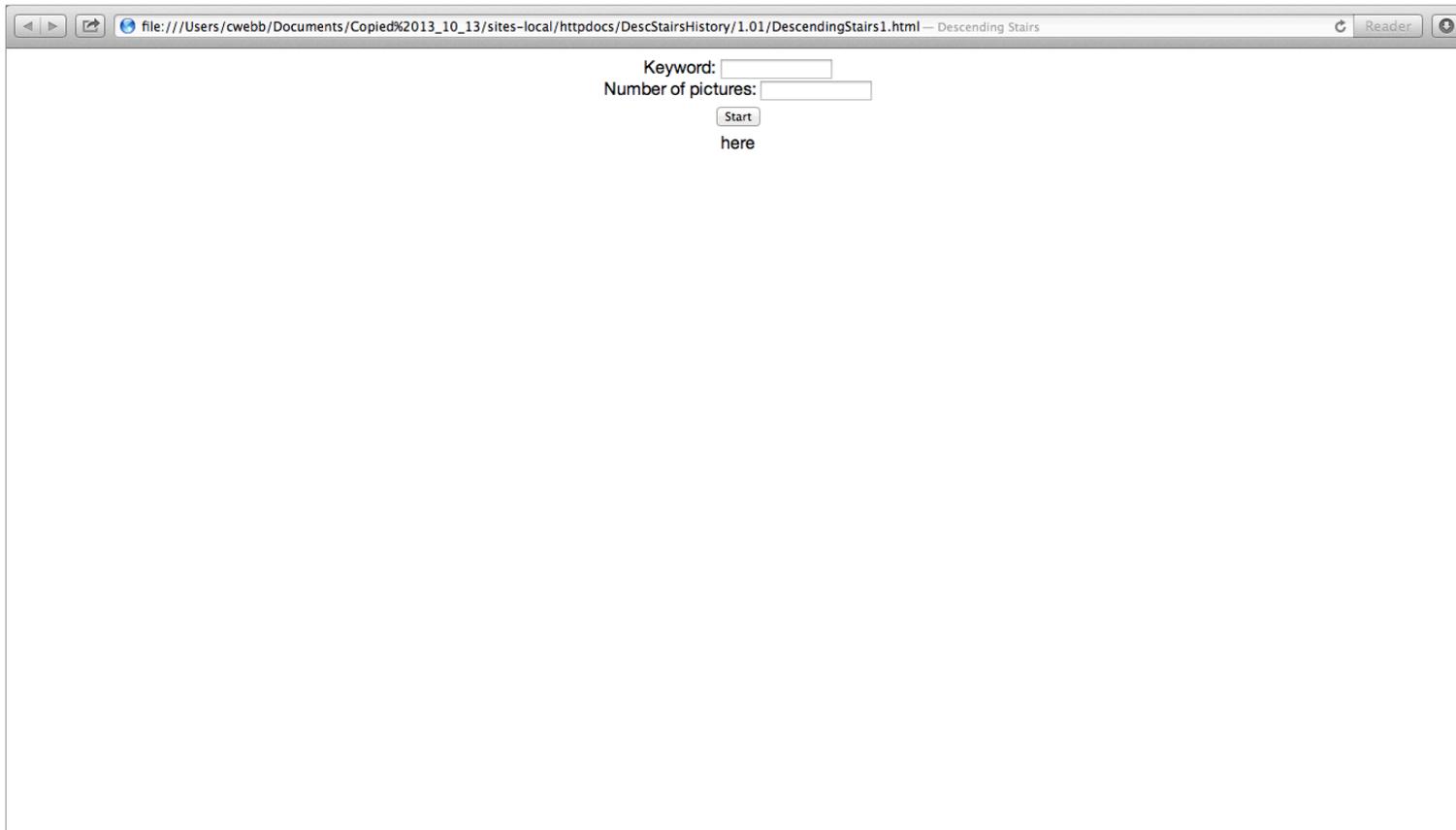
Appendix 1

Flickr Nude or Noodle Descending a Staircase – main page iterations

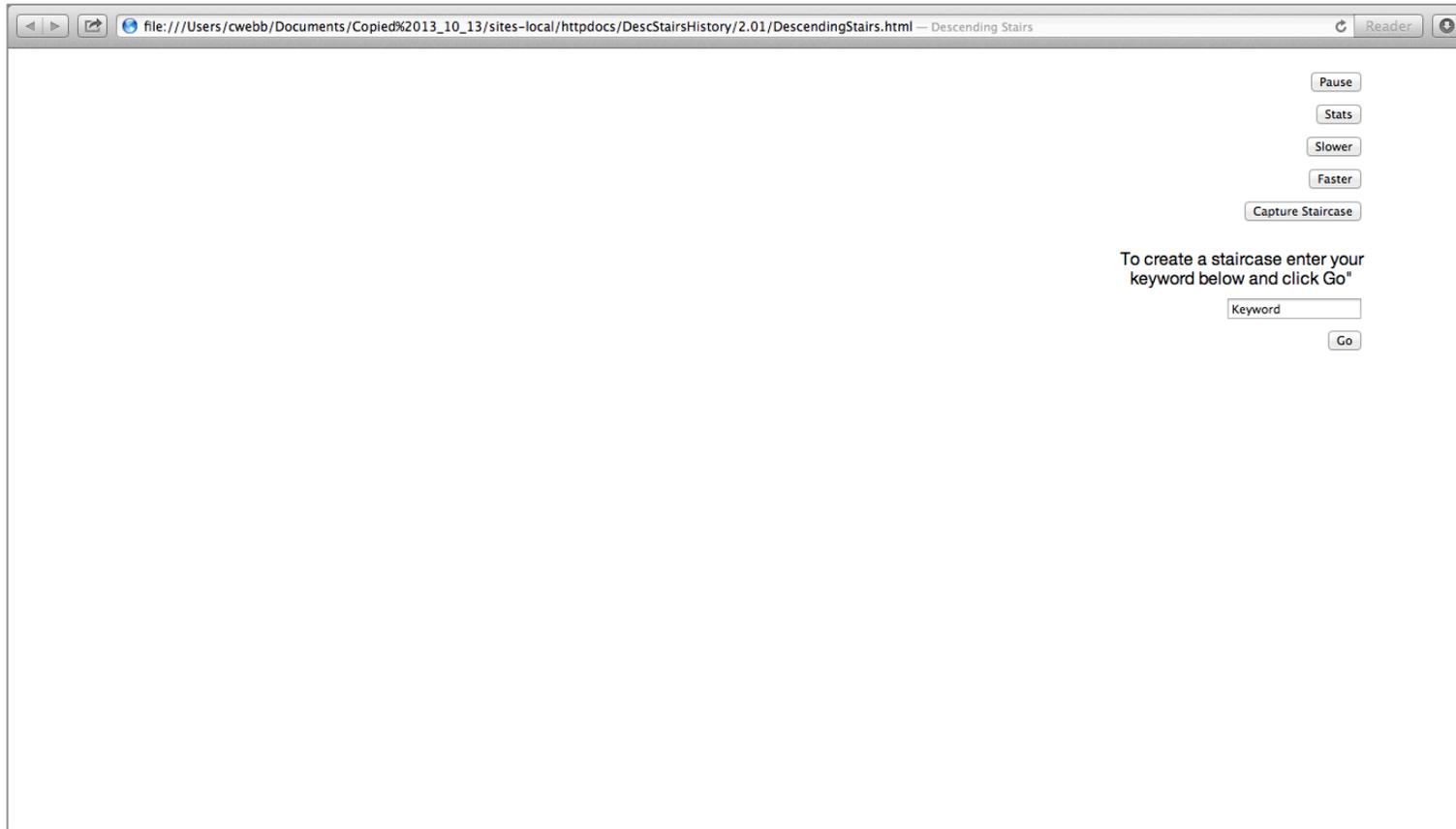
Version	Functionality
1.01–1.02	Keyword field Number of Pictures field Start Button 'Here' (this tested whether the code was working)
1.03	Keyword field Start button
1.04–1.06	No available buttons
1.07	Pause button (becomes resume button when paused)
1.08–1.09	Pause button as above, but moved position on page
1.10	Pause button Stats button
2.00	Pause button Stats button Snapshot button (allows viewer to take a screenshot of their staircase)
2.01	Pause button Stats button Slower button Faster button Capture Staircase button 'To create a staircase enter your keyword below and click "Go"'

	<p>Keyword field Go button</p>
2.02	<p>Pause button Stats button Slower button Faster button Capture Staircase button 'To create a staircase enter your keyword below and click "Go" Keyword field Go button View Archive button (allows viewer to see screenshots)</p>
2.03	<p>Slower button Faster button Pause button Stats button Capture Staircase button 'To create a staircase enter your keyword below and click "Go" Keyword field Go button View Archive button New keyword displayed in top right in red, with 'descending a staircase' in black</p>
2.04	<p>Slower button Faster button Pause button Stepback button when paused Stats button 'To create a staircase enter your keyword below and click "Go" Keyword field Go button View Archive button</p>

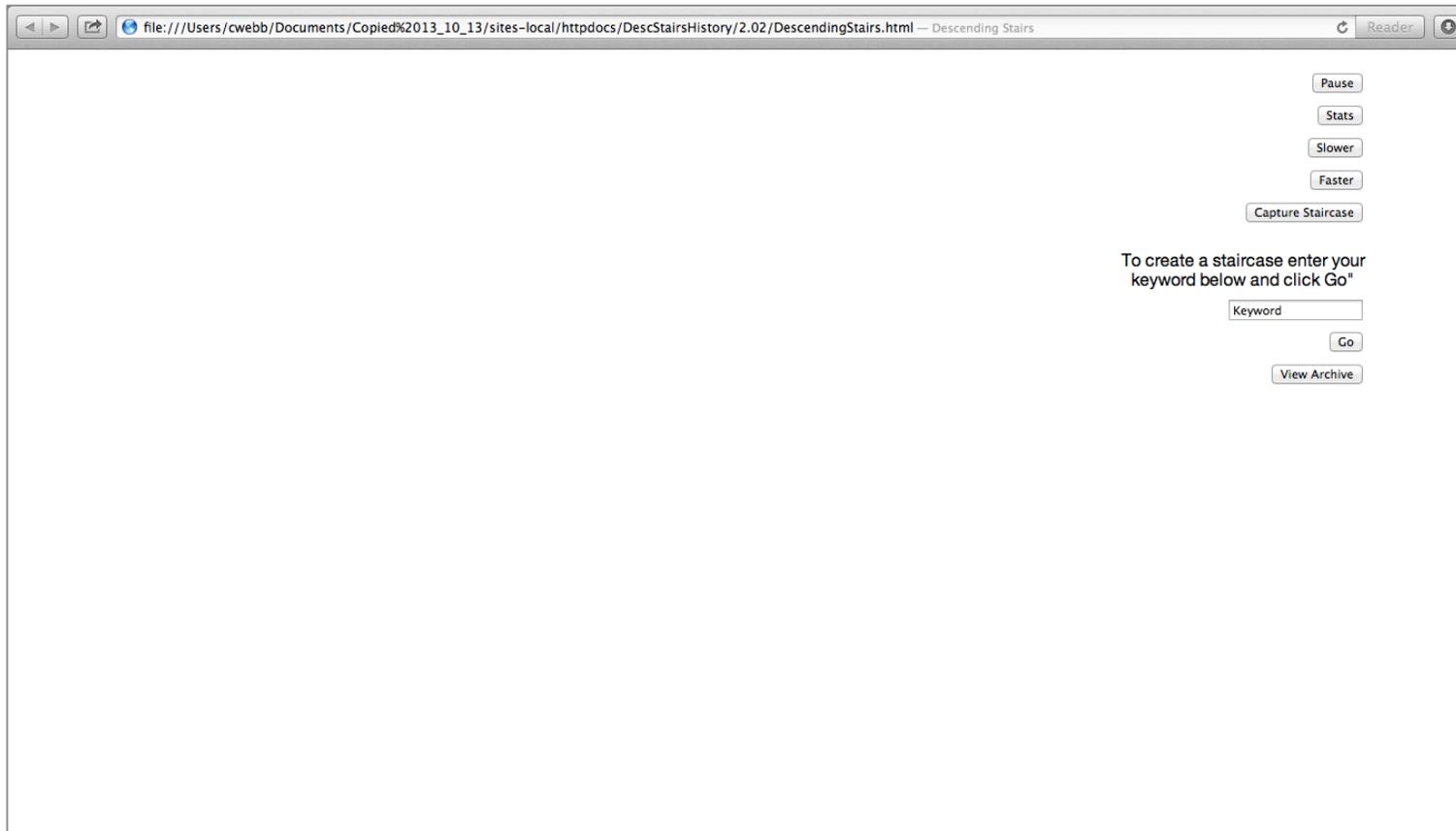
	New keyword displayed in top right
2.5-2.6	Pause button Stepback button when paused Stats button Slower button Faster button Capture Staircase button Dialog for capture with name and comment New keyword and Go in the top right Title block in the top right Advanced button Menu moved along top and colour introduced
2.7	Pictorial buttons introduced (all with hover over descriptive texts) Keyword field Slower icon Play/pause icon Faster icon Step back icon Stats icon Capture icon Advanced/settings icon Refresh icon Archive icon



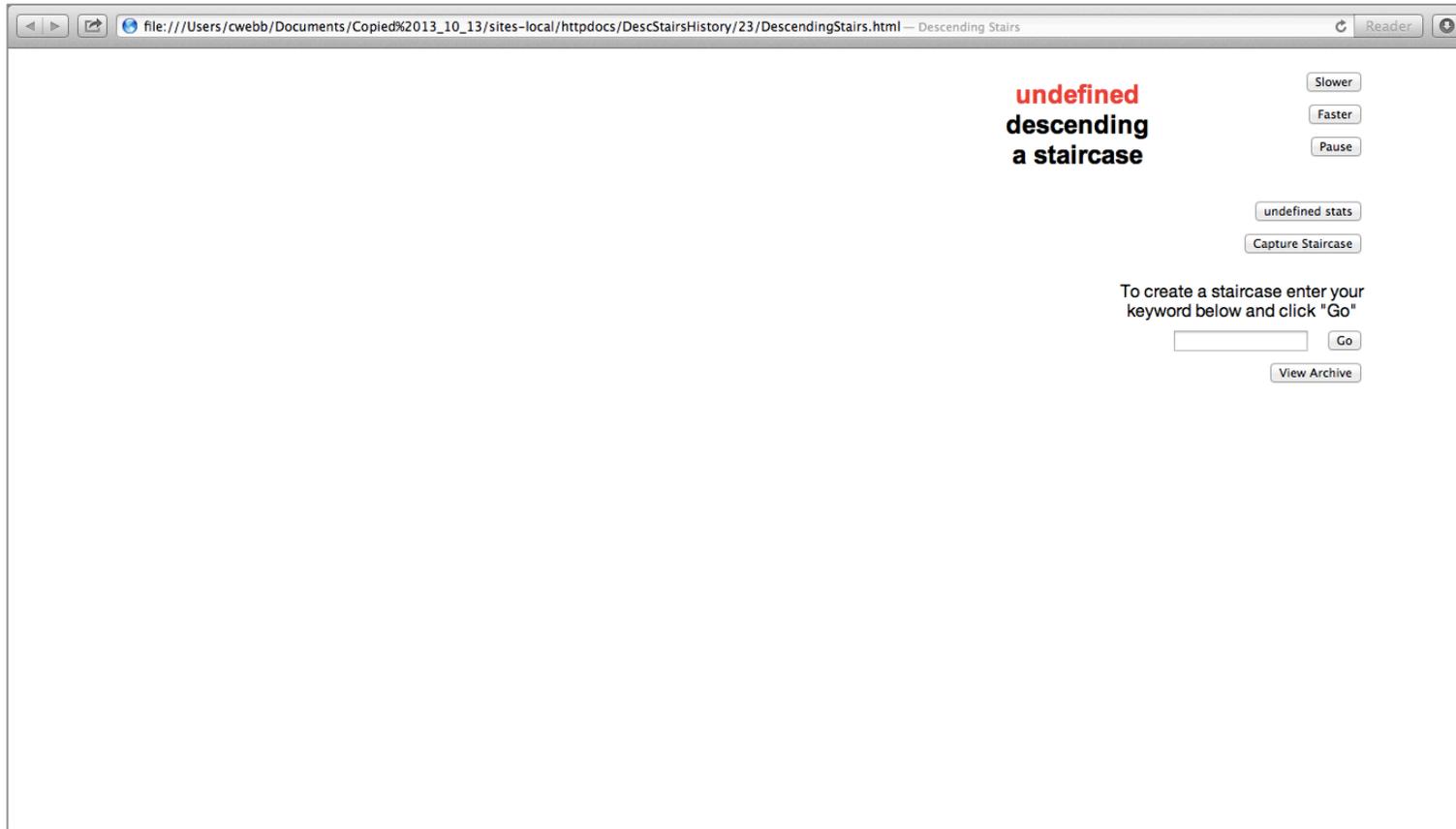
Version 1.01



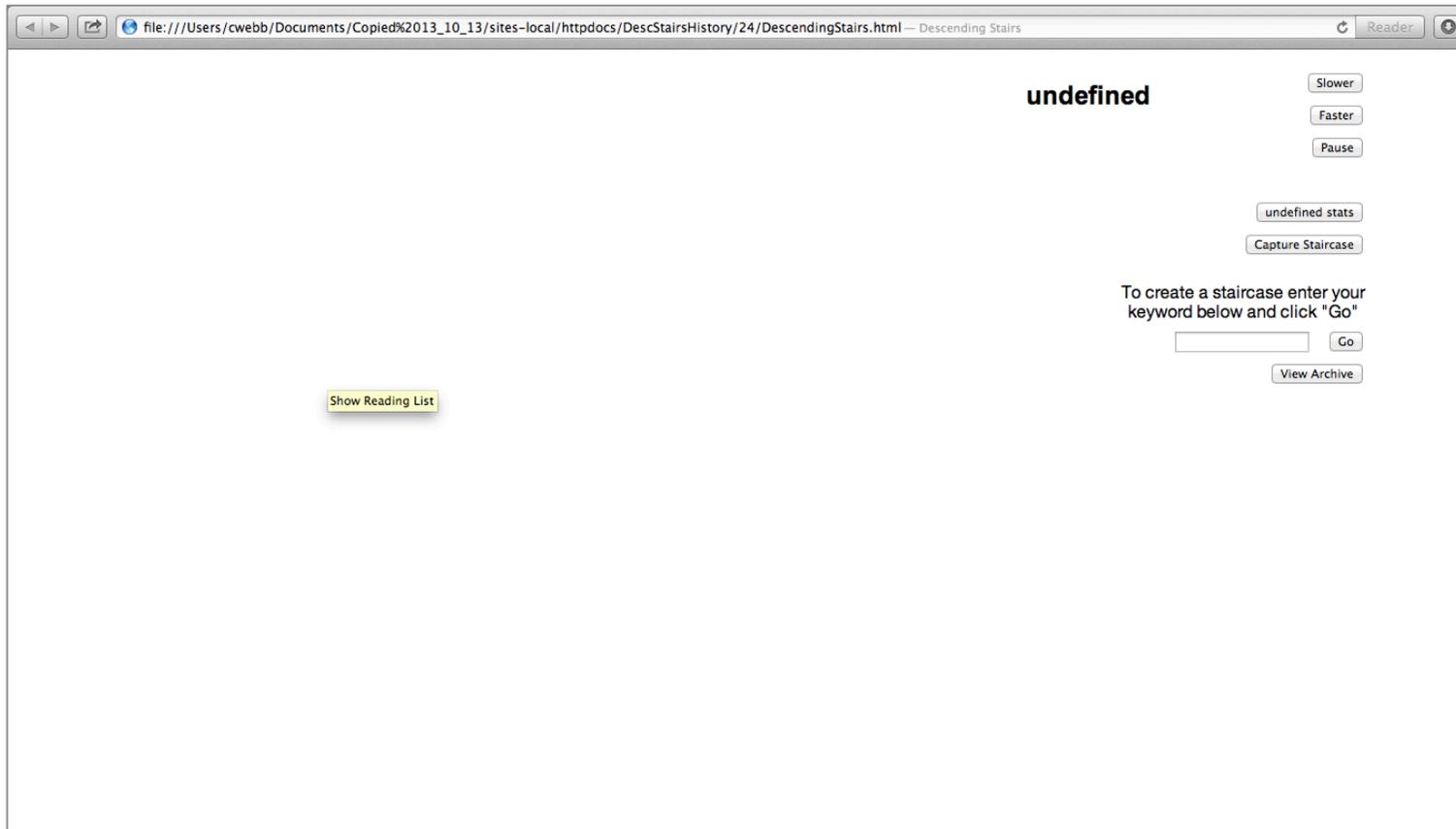
Version 2.01



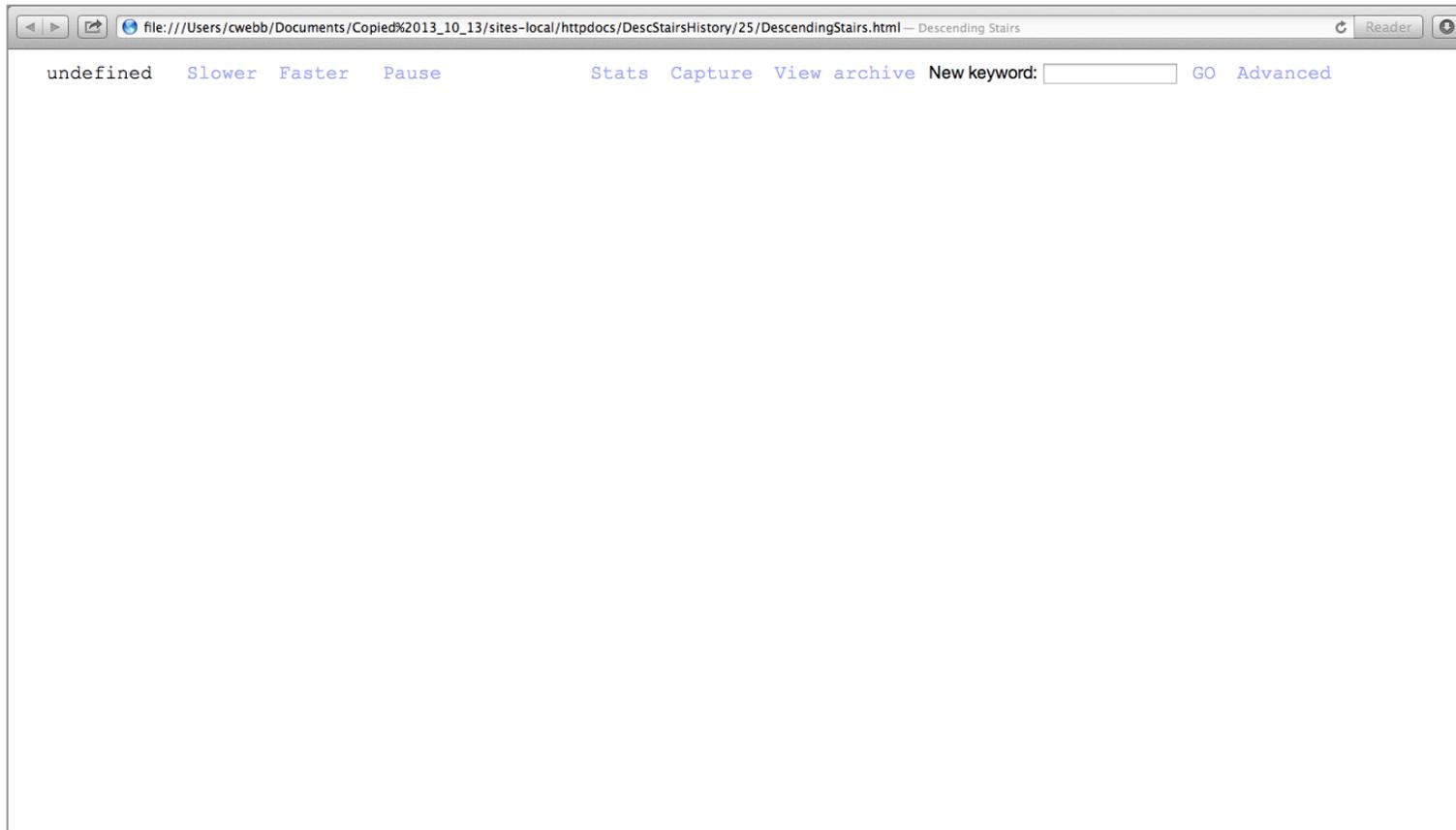
Version 2.02



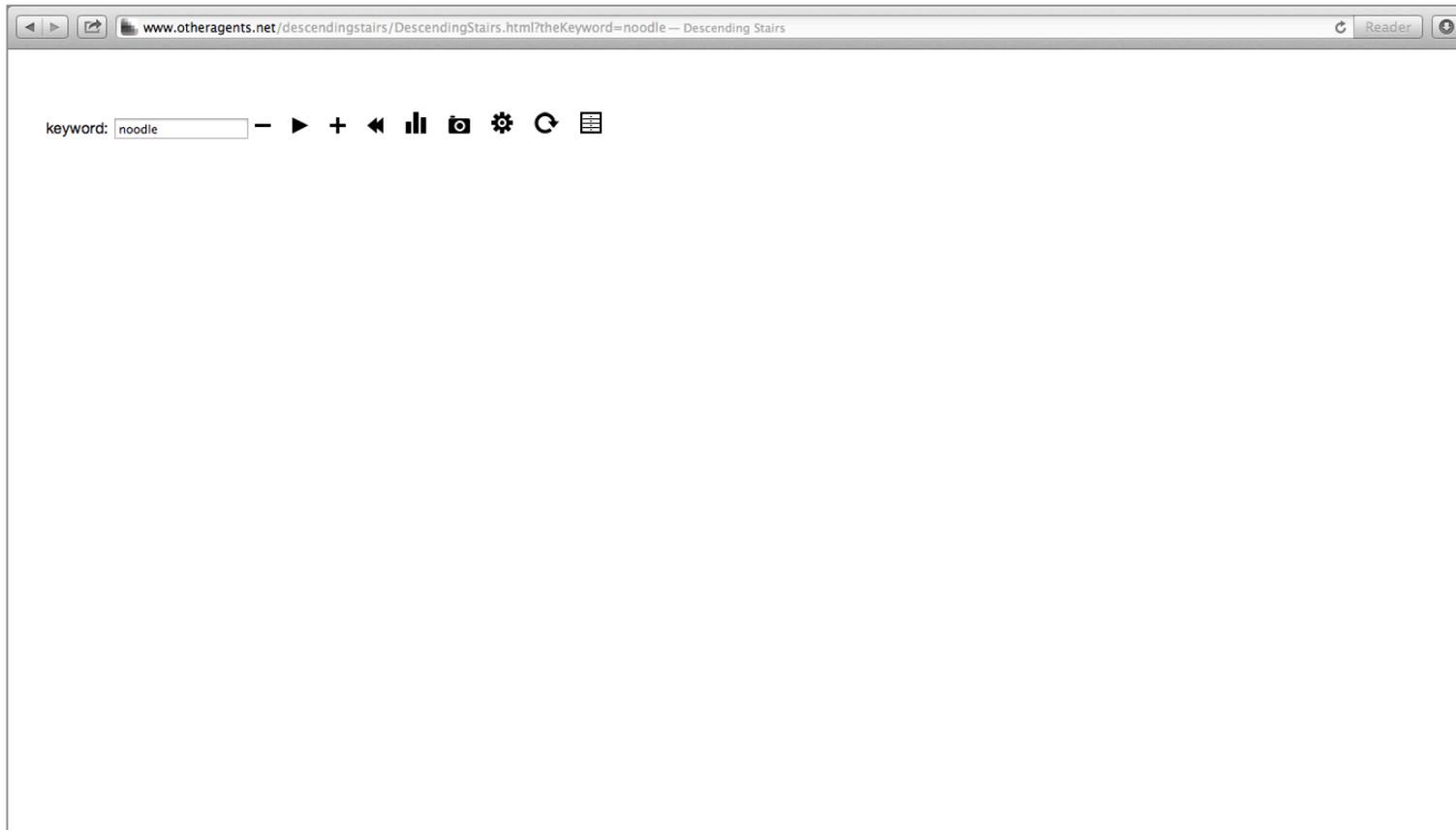
Version 2.03



Version 2.04



Version 2.05



Version 2.7

Appendix 2

Correspondence between Charlotte Webb and Own-it, 31 March–15 April 2014 (submitted through Own-it's online enquiry system)

Use of Instagram API in artwork (Submitted at 10:28)

Dear Own-it

I have recently made an artwork that accesses data from the Instagram API and displays it on a web page:

<http://www.otheragents.net/selfieportrait/selfieportrait.html>

(It is displaying any photo tagged with the word 'Selfie' in Instagram, along with the profile information of the person who posted it).

I have consulted the Instagram Terms of Use, API Terms of Use and Privacy Policy, and while I am confident that I have complied with the API terms of use, I would like to double check whether this work makes fair use of Instagram User

Content in compliance with 'owners' requirements or restrictions.

The IG Privacy Policy states that:

'other Users may search for, see, use, or share any of your User Content that you make publicly available through the Service, consistent with the terms and conditions of this Privacy Policy and our Terms of Use.'

and

'Subject to your profile and privacy settings, any User Content that you make public is searchable by other Users and subject to use under our Instagram API. The use of the Instagram API is subject to the API Terms of Use which incorporates the terms of this Privacy Policy.'

(<http://instagram.com/legal/privacy/>)

The API terms of use state that API users shall

'Comply with any requirements or restrictions imposed on usage of User Content by their respective owners. Remember, Instagram doesn't own User Content – Instagram users do.'

Although the Instagram APIs can be used to provide you with access to User Content, neither Instagram's provision of the Instagram APIs to you nor your use of the Instagram APIs override User Content owners' requirements and restrictions, which may include "all rights reserved" notices (attached to User Content by default when uploaded to Instagram), Creative Commons licences or other terms and conditions that may be agreed upon between you and the owners. In ALL cases, you are solely responsible for making use of User Content in compliance with owners' requirements or restrictions.' (<http://instagram.com/about/legal/terms/api/>)

Can you advise whether I am failing to comply with content owners' requirements or restrictions by displaying their Instagram photos and profile information on a web page? Am I right in thinking that as long as I do not display private photos, this is OK?

Many thanks

Charlotte

Own-it replied at 10:05

Dear Charlotte

Instagram user photos and videos are owned by the users and not by Instagram (clause 1 API terms). This is repeated in point 1, heading: 'Rights' of the Terms of Use: 'Instagram does not claim ownership of any Content that you post on or through the Service'. Accordingly, Instagram does not have the right to grant you permission to use user content. This must be sought directly from the copyright owner (this is usually the person that took the photograph – <http://www.own-it.org/knowledge/who-owns-the-copyright-in-the-photograph>).

This is reinforced by the API terms where it states that you must: 'Comply with any requirements or restrictions imposed on usage of User Content by their respective owners' (clause 1, second bullet point – API terms). Moreover, you agree not to: 'Use the Instagram APIs in any manner or for any purpose that violates any law or regulation, or any rights of any person, including but not limited to intellectual property rights, rights of privacy, or rights of personality'. Copyright (a

form of intellectual property right) subsists in certain artworks e.g. photographs, regardless of whether the copyright owner imposes any restrictions on his content (e.g. by affixing a copyright notice). Therefore, you may be infringing copyright by using photographs without permission from the rightsholder.

The licence users grant to Instagram is limited by the purpose for which Instagram is acquiring it, and is described in its Privacy Policy.

- Instagram does not rent or sell your information, which may include your content and your personal data, to third parties unless the other party is affiliated with Instagram, which means it is part of the same group of companies (e.g. Facebook) or will be part of the same group of companies in the future.
- Instagram only shares certain information with third parties, who help it to provide the services to you. This information is unlikely to include your content in its material form but is limited to information gained from cookies, metadata of your content (technical information about formatting or data, you

yourself associated with your content such as hashtags, location information), log files and device identifiers. Access will be given only to the extent which is reasonably necessary to provide the services – please note that in this context you are a third party and therefore your use of user content is restricted unless you either get permission from the user or Instagram (which is very unlikely).

- If Instagram is transferred to another company or subject of a merger, your rights are protected. You will still own your content and any buyer or resulting new company needs to adhere to these terms.
- While Instagram allows other service providers (such as Twitter, Facebook etc.) to access its API (Application Programming Interfaces – a library that determines how software components interact), it emphasizes that users' content is owned by Instagram users. It therefore doesn't allow such service providers to override users' restrictions or requirements, which may include 'all rights reserved' notices. Such 'all rights reserved' notices are attached to each photo by default if uploaded to Instagram.

- Content will be shared with other users depending on your privacy settings (as above).

We suggest that if you want to use user content then you should request permission from the copyright owner (we appreciate that this may not be feasible considering the method of data extraction and the immediacy at which the image may appear on your site). You should be prepared to respond promptly to takedown requests if you do not have requisite permission to use certain content. To comply with the API terms you must remove user content from your application within 24 hours of receiving a complaint from the user (clause 1, fourth bullet point – API terms). If the images displayed on your website are refreshed every day (having accessed your website we believe this to be the case) then you may consider that the risk of content owners noticing their work on your website is perhaps minimal. However, the temporary nature of your use of images would probably not exonerate you, however minimal the use of such content, and if a copyright owner were to become aware of your use of their images then you may be liable to pay a retrospective licence fee for use of the work.

We are aware that this may cause you considerable difficulty in displaying your work and you are welcome to discuss this with an experienced lawyer (which we are not). We will therefore invite you to book an IP clinic – please note that we are fully booked until mid-May and the next available clinic is on Wednesday, 28 May – there are only two slots left so please book quick before they are gone. Alternatively, if you need advice from a qualified solicitor earlier we can ask one of our partners to look at your query and give us an opinion.

Please let us know.

Kind regards

The Own-it Team

Appendix 3

IP clinic transcript

This is a transcription of a meeting between Charlotte Webb and Angus McLean, which took place at University of the Arts London on 28 May 2014 as part of Own-it's IP clinic service.

Angus McLean: So we've got an idea about the background – it seems to be that – it seems to be that the advice they gave you – I don't know what the date is – setting out your position as far as the use of the content, the use of the photographs... I don't know whether you have specific questions on that or whether you'd like to go over that advice again, or you've got any questions on the back of that advice. One of the things I thought might be quite helpful – we tried looking for the site actually – I don't know whether you're able to access it?

Charlotte Webb: Yeah – I've got it – I've got it running now, I do have a list of questions. This is the site, so as described, it's displaying Instagram photographs, which have been tagged

with the word 'selfie', and the profile description of each user whose photo is being displayed.

AM: Yep.

CW: That's—

AM: Interesting selfie.

CW: Yes, people strategically tag images with the word 'selfie' because they know it's a popular hashtag. So essentially, that's it – I understand that the copyright belongs to the people that post the photographs, not to Instagram, and so...

AM: Yep.

CW: Essentially – I also understand Own-it's advice, which is that – their recommendation is that I should seek permission from each user.

AM: Yep.

CW: I can look into ways of possibly automating that process, I was also considering testing that process manually, but I

wanted to get your – you guys’ advice on if I was to seek consent, what that would need to actually contain.

AM: OK.

CW: Because basically the only way I can think of doing it is to put a comment on the photograph, because I can – I can find – I have their user information so I can direct message them, but you know, would I have to have a webpage that says exactly what I’m asking and what would that webpage need to contain? So that’s one of my questions, but I guess my overarching question is ‘does what I’m doing infringe the copyright of the Instagram photograph owners, and then all of the other questions are—

AM: Flow from that.

CW: Yeah, if so—

AM: OK, so I think the starting point is – I don’t know whether it’s worth just going through the email but I think – your request – I think understandably you’ve looked at some of the Ts and Cs that apply to Instagram use – I think the Own-it response focuses principally on the API terms, and just to be

clear – your site is – well it’s a question – does your site rely on actually being connected to the – to Instagram – using the API in order to get access to the data?

CW: Yes, I get all the data through the API.

AM: OK, and have you ever looked into how easy or possible it would be to access and be able to extract those photographs without going through the API?

CW: Well you could search for the hashtag ‘selfie’ on something like Statigram or Webstagram, but I mean anyone can do that – and you can also search for any user now in Instagram directly without having to have an account. To use Webstagram or Statigram I think you have to have an account.

AM: Yep.

CW: So—

AM: You can search for a user but would you be able to extract the photographs in the same way?

CW: I don't think so – I think it's – I think using the API is the only way you can automate the process of putting the information onto a web page.

AM: OK – extracting it – OK. Because the first question is – well, my first question is that: is there a way round doing – or is there a way to achieve what you want to achieve without actually signing up to – using the API – which means that by default you have had to sign up to the API Ts and Cs basically, and the reason for that I think, is that as the Own-it advice said, despite some slightly sort of misleading, maybe misleading or confusing references elsewhere, particularly in the privacy policy, I think it's pretty clear that the API Ts and Cs say that you can't use – you're not free to use photographs or user content without liability, and the main liability is for copyright infringement essentially, without getting permission from the users, now there seems to be an exception – one exception to that – and again if it's possible to automate the process it might – if it's possible possibly to automate a process for seeking consent, then it may be possible say to do this in an automated way – if it is then great, and that is there's a reference in the API Ts and Cs, to the fact that as a default the Instagram photos that are uploaded are noted as

all rights reserved, or have all rights reserved notices applied to them. Is that something you've come across previously?

CW: No.

AM: Well it's in the section that the Own-it guys have flagged already, so – and this is the clause that causes you the problem in the first place, saying you're not free to use user content without permission, and it actually refers expressly to the requirements and restrictions which 'may include all rights reserved notices attached to user content by default when uploading to Instagram'. So – I'm afraid I've got it on my iPhone but I've never posted an Instagram photograph, but I assume that– I infer from that it is possible that as a default when you upload a photograph it's noted as all rights reserved, which is effectively in theory the content owner, the photographer, saying you're not allowed to use it without my express permission, which is why Own-it have suggested that you do need to go and seek their permission. If there is a way automatically or manually depending on how much time and energy you've got to search selfie tagged photographs with – against whether they have had that default setting removed, so that they don't have the all rights reserved notice, then that

is I think that puts you in a good position basically. Does that make sense?

CW: It does.

AM: I assume that somewhere in the metadata for the photographs there is that there, so if you're signed up to the APIs and you're accessing the content through the APIs that someone clever might be able to work out how to search and refine the photographs that you're using in that way. On a practical level, if that's a default setting - how likely it is - and the number of people that will click the default setting off, I'm afraid is questionable.

CW: Yes.

AM: But that would be the optimum, well there are two - the optimum position is if you can find the content without, access the content without going through the APIs, then you're not bound by the API Ts and Cs, because actually at the moment on a purely copyright position, the law has recently changed such that if you're using content that is publicly available without restriction, then if you're linking to that - and that's one of the questions I had for your tecchie guy - I

don't know whether that's something you know the answer to - but if what you're doing is simply linking to the photograph itself such that if that photograph was removed from Instagram you can no longer show that photograph, then there was a European case earlier this year that says that that in theory if it's publicly available without restriction is permissible.

CW: OK, so in answer to that question, yes we are effectively just linking to the photograph, so what we actually - we don't store any images, we just store a URL that points to the images, so when the image is displayed we're getting it from Instagram from the URL, we don't copy them or anything like that, and it is - at the moment these (the photos) aren't links but we could make this a link to that person's Instagram feed.

AM: Well the case itself actually says that even if you're allowing the photograph to appear on your site such that it looks as though it appears on your site but it's based technologically on a link to the original site then that's permissible.

CW: Wow.

AM: So it wouldn't actually have to be a hyperlink it could just be the photograph itself, so long as it's based, or appearing – I have to admit I don't know technologically how you achieve that.

CW: Just this.

AM: OK, well that's based on a link.

CW: Where is the documentation – where should I refer to for that particular—

AM: The case? I've got a copy here. It's actually a remarkably short European Court of Justice judgment, but if you plug in that case reference there – it's referred to by everyone as 'Svensson'.

CW: OK, so can I just clarify though – because – how does the API change that position?

AM: Good question. OK, so there are basically – there are three strands to this as I see it. The first strand is if you can access that information or get access to that content without going through the IG effectively, particularly going through

the APIs, then a) you're not bound by the Ts and Cs that apply to the use of the APIs.

CW: But I am still bound by the privacy policy, which basically says the same thing.

AM: Well it refers to the APIs, but if you're not accessing that content through using the APIs then you're not bound – I would say, certainly arguably, you're not bound by the contract that applies by the use of those APIs. Does that make sense?

CW: Yes.

AM: The difference in position is because you're using the APIs to access the information, there's an additional level of restriction that applies to you which is not just copyright law, it's contractual law because you've actually chosen to accept those Ts and Cs, so Instagram are able to impose a higher level of sanction on you than they are if you're able to access that content without going through the APIs. Does that much make sense?

CW: Yes, that makes sense.

AM: And in fact that's one of the key bits to this case – I'll tell you the paragraphs that might help put your mind at rest. That – the way that this distinguishes – I have to say I'm not entirely convinced I agree with the reasoning they gave for – but it's European law – it's European wide law at the moment so – what they say is that if the content itself is available to the public, then so long as all you're doing is making the same content available to the same public, then you're not doing anything that infringes copyright. The key there is – and this is why I ask the question of whether it's possible to access that content without going through Instagram – that if you can access it in that way, so can anybody else, so arguably you're just referring it on to the same public that can already access it.

CW: Anybody could get an Instagram API key.

AM: Yes, well they can, but they have to sign up to the Ts and Cs – so you can't unilaterally access that data without going through a couple of steps.

CW: Yes.

AM: But if you can – if you could find a way to access that data in a way that other people could, then arguably you're falling within the – not defence, but clarification this case provides. Does that make sense?

CW: Got you, yes.

AM: Now, that's the theoretical possibility at the moment, which it's worth speaking to your tecchie person about. If it's not possible to do that – and I envisage that it might be possible to do that in some cases but you probably won't be able to access the same pool of selfies that you're able to access if you go through the APIs. So the second tier is if you choose – if you decide that you could do that but it's not giving you access to the same pool of content that you would like to be able to have access to, and therefore it's important to, or it's necessary to go through the API route, then as I said, the problem lies in that you're not only bound by copyright law, you're also bound by contractual law because you agreed to the Ts and Cs, and those Ts and Cs preclude you from using or redistributing user content without permission, unless you're able to search for content that has had the default setting – all rights reserved – removed. Make sense?

CW: Yeah – totally makes sense – I’m not sure if there’s even a functionality within Instagram that lets you do that.

AM: Well, as I say, I’d be surprised if somewhere in the metadata that sits within Instagram, that I assume you’re able to access, maybe not completely readily, but more readily than you would be if you were just searching and trying to access that information without being connected to the website itself and the API, that you might well be able to work out how to refine your searching in that way or by using that as a factor.

CW: Yeah.

AM: That may be optimistic but again, the problem with that – in the same way as the problem of searching without going through the API is that I imagine that that’s going to give you a very restricted pool of content to use. So that brings you back to the third position which is the position I think you were already told about which is based on the Own-it advice you have at the moment, which is in theory you shouldn’t be accessing or using that content without getting permission from the users. It’s interesting that you say it is – you think it

might be possible to automate that permission request process, and I could see a situation in which, if I understand it correctly, what you would do is – in order to use their content you know which account you’re getting that content from, if you are automatically able to message that person through their account – is that what you’re envisaging?

CW: Yes.

AM: To say ‘are you happy – I’d like to use your content in my – on my website – and are you happy to do that?’ – I can see – even if you did that in an automated way, I can see you putting yourself in a position where I think your risk of getting a complaint is very small – certainly a valid complaint is very small. The one problem with that is – and I think you envisaged this with one of your supplementary questions – is if you have asked for consent and you haven’t received that consent, then I think you would need to make sure your program is working – the algorithm or the program that you’re using to extract the content is working in such a way that it excludes any photographs that you’ve asked for consent in relation to and haven’t received that consent. Does that make sense?

CW: Wow. Yes – I wondered if there was a thing of – if you’ve asked it’s OK – because I mean can I really expect every single person to click the link, read the information and decide?

AM: Well, I’m not sure necessarily you need to provide that much information. Is there a character restriction like Twitter on the number of characters you can use?

CW: Yes, I can’t remember what the total is but I thought the comment itself would have to be very small and could include a link maybe?

AM: Yes, I mean I think – there’s no reason why you would – I think in principle there’s no reason why you would need to set out a very fulsome request or information, I think you could literally just say ‘I like your photo I’d like to share it on my website’ – attach a hyperlink – ‘please can you confirm that you’re happy for me to do that’?

CW: Yeah.

AM: And the reason I’m slightly relaxed about the wording for that and the extent of the wording is all of this advice – up until now – all of this advice is black letter advice based on

technically your – the application of the law as it technically sits. All of this sits against the practical backdrop of what is your – what’s the risk to you of ignoring this advice? And I think in a way that’s touched on a little bit by the Own-it advice, which is so long as you have a system in place which means you are also in compliance with one of the parts of the API Ts and Cs - that you’re taking down content that you get complaints in relation to – then what is the real risk to you of effectively ignoring the API Ts and Cs that apply to the use of the APIs? And certainly as far as UK law is concerned, the financial liability and risk to you I think is fairly low.

Technically, if you used somebody’s content in breach of their copyright rights then they’re entitled to a number of things – one is an injunction, which would get you to force you to take down their content, which – our advice would be definitely do this, which you have the facility to do anyway, and do it expeditiously, and also technically they’d be entitled to damages. What the damage would be to an individual user by using the content that you’re using in the way that you’re using (it), I’m not sure – it’s going to be questionable whether there is actually any financial damage to them, but whatever financial damage there is is probably going to be appointed to

some sort of – the amount you'd have to pay them in return for consent to use their photograph which, depending on whose photograph it is would probably be a range. If you're using a celebrity's photograph then it may be that they're a bit more sanguine about how likely they are to give consent, and they might ask for more money than an individual user or a non-celebrity, and a non-celebrity – I don't know what sort of money you would have to pay to get them to agree to use their photo.

CW: Yes, that was one of my questions – how much would I have to pay someone if they really wanted me to?

AM: Well, at the moment, as far as I can see, the main risk is a damages claim – the financial risk appears to be a damages claim under – for copyright infringement. You might think in these sorts of situations there's a privacy risk and in theory there are damages available for breach of privacy as well – I'm not sure I could see an English court saying there's any breach of any individual's privacy here – they've already posted the photograph online, albeit to Instagram users but, maybe not quite with the freedom we'd like to be able to do it, but I'm fairly sure it's possible to access Instagram content even if

you're not an Instagram user, so actually is there really any expectation that that photograph is private? I think that's going to be a very tough argument to make, so I think the principle liability is damages for copyright infringement, and in the circumstances unless there's somebody that could command a massive royalty fee for the use of their image then I think it's questionable how much if any money they could claim from you. So the most likely risk for you is that you have to take down their content, basically, which you may feel is a risk that you're happy to take, I said, in a lawyerly way.

The other – that's the direct risk between you and the user. The other risk of effectively ignoring the API Ts and Cs is that Instagram could pull your account or pull your access to the APIs which – one of the things we haven't talked about is the background to this and the key objectives is – is it a project you're working on?

CW: Yes, it's an artwork – it's part of my PhD research, which is about examining what the artist's agency is in producing web-based artworks.

AM: What do you mean 'artist's agency'?

CW: As in their capacity to produce – what happens to your authorship when you use stuff from the web? Whose content is it? Who is the author? Who is producing something? Who owns what's being made?

AM: So a copyright challenge might be quite effective for the purposes of the research.

CW: Yes, that's the thing it's really interesting and this is very valuable for what I'm trying to understand.

AM: Well Svensson – you should be referring to Svensson in your thesis I would say, because it's a landmark decision.

CW: OK, great. Can I just check we've covered all my questions?

AM: Yes.

CW: So, the answer to 'do I infringe their copyright?' – yes. Can I use a fair dealing argument in light of recent changes to copyright exception law?

AM: Well technically this isn't a fair dealing argument. Is that right? Yes, technically, the way I read Svensson is that it's – the

way they've argued it – the way the European court has argued it, which as I say I'm not necessarily sure I agree with the logic and there are other people, commentators that have had questions about the logic they've use, but the principle focus or the intellectual justification that they've gone through is that if what you're doing is only communicating or re-communicating the work in question to the same public that it was initially communicated to, then what you're doing is no different to what the original publisher did.

CW: Got you, yes.

AM: So, and that's why it's important to be clear on what – who the public is, and to give the example, if you're able to access publicly that content, without signing up to the Instagram Ts and Cs, then I would say that you're only doing what the original user had done, or the original content owner has done. If you can only access it through the Instagram Ts and Cs and then you're re-publishing it, then I'd say that the public in question that you're re-publishing to is different to the original public, if that makes sense. So I don't think technically it's – you're relying on a fair – I mean fair dealing is things like use for purposes of review, criticism or

news reporting and I thought about it a little bit in relation, when I initially saw your question, and I don't think – I mean the fact that it's a PhD project might change that slightly – we very rarely do this, but for this question in particular, I thought I'd bring our statute book along. Let me just see.

CW: I would argue that the public doesn't change, because I mean the content is content that the web public could look at when it's originally posted and it's still content the web public can look at when I post it.

AM: If what you're doing is – if you're extracting the content without going through the APIs—

CW: But the content would be the same.

AM: The content is the same but the public is different because if you have to go through the APIs to get access to the content, then the public for the purposes of the original publication is those users of Instagram that signed up to Instagram. If you're then taking that content and applying it, or publishing it via a website that you can access without signing up to the Instagram's Ts and Cs then your public is – the Instagram public is that, and you're publishing it via your

website which is – has no Ts and Cs attached and anyone can access it – is exponential, all web users.

CW: But all web users could see the Instagram content as it's originally posted.

AM: Do you know for a fact that they can?

CW: Yes.

AM: So you know that in relation to every single photograph that you re-publish, a member of the public could access—

CW: Yes.

AM: Definitely?

CW: I'm pretty sure yes, because you could go to webstagram without logging in, I think, and just access it through that.

AM: OK, well it may be that – if that is possible then there might not be a copyright infringement issue in relation to what you're doing, but there's still – if you're having to access through the APIs, you're still bound by the contract.

CW: But also the risk of Instagram actually caring is very low, right?

AM: Well, actually the risk of Instagram caring is probably quite high, because if they got a complaint about what you were doing they would care because of the sort of principle on which they base your access to or anyone's access to the APIs and they'll be more concerned about a user's concerns than they will about somebody who is accessing their content and then making the most of it or using it for their own purposes, so I suspect they would be concerned if they received a complaint – but probably the biggest issue is how likely a user would be to be concerned about it or ever find out about it.

CW: OK, you don't think – the risk of them caring is high but you don't think that they'd—

AM: Well as far as I'm aware they don't monitor this, so the only situation in which they'd be made aware of this would be if a user complained about having discovered what you were doing with their content and the fact that their selfie had appeared on your website – is if they raised that to Instagram,

and if that was reported to Instagram I can see them being unhappy about that. I don't know what recourse they would take but as I say there are two levels of risk to you – there's one the risk as to you and the user, and as I say I think the main issue there is your liability under copyright law, but your position between – the position between you and Instagram, if you're using the process of getting access to the photographs via their API is the contractual position you have with them under their Ts and Cs, and the ultimate sanction there would be the – maybe not the ultimate sanction – but the biggest practical problem for you is if they pull your access to the API. Out of interest have you received any complaints?

CW: No.

AM: How long has the site been up?

CW: Since December.

AM: OK. I mean the one thing – and I suspect this is part of the thesis – the one thing that I hear very often in these surgeries as well as with highly sophisticated in-house lawyers at big investment banks and things like that is 'everyone else

is doing this, so is there a problem? Surely there's no problem if everyone else is doing it?' And the answer to that I'm afraid – the legal answer to that – is just because everyone else is doing it doesn't mean it's OK. Also you never know the basis on which people are making that content available – have they come to some sort of separate arrangement with Instagram – have they sought permission from users?

CW: OK I have one question just going back to the automated permission. I have a concern that Instagram would take what I do there as spam – as me spamming people because they say you can't use the Instagram (API) to create unwanted comments or anything.

AM: So they say, section 2 – that seems to be the biggest risk, the second bullet point 'use the Instagram API to spam or otherwise harass users with unwanted likes, comments and other actions.' The issue there is that—

CW: Do they actually use the word spam?

AM: Yes 'spam or otherwise harass users with unwanted likes, comments and other actions.' And I think what you're talking about here is 'other actions' I don't think it's spam, and I don't

think it's unwanted likes – it's not comments – it's other actions. I don't think – I'm not sure that clearly – I don't think that clearly precludes you from sending a message to ask whether they're happy for you to re-use their content, so I don't think under my reading it could definitely prevent you from doing that.

CW: Great.

AM: The one thing that I should say in relation to all this advice is that it's UK law advice. Unhelpfully I'm afraid as with all these social media sites, Instagram's Ts and Cs are based under and expressly stated to be governed by Californian law so it may be that Californian law would have a slightly different interpretation to that but I think as far as UK law is concerned, I don't think what you're intending to do – if all you're talking about is an automatically generated request for permission...

CW: And it's only one – you'd only get one message per user.

AM: Yes, exactly – I think that's important – as long as you're not pestering them with – if you haven't heard within 24 hours you're not sending them another one. I think it should

be a one shot only. I don't think you – you definitely – what's the right way to put this. I don't think you definitely fall within that restriction, i.e. it might be that you fall outside that restriction, and in fact you could argue that the fact that you've got an obligation under the second bullet point which is the one that causes you a problem, to comply with their rights, which you could say arguably imposes an obligation on you to seek their permission, I would say, certainly if anyone complains about that your response should be, or would be 'well I've got a competing obligation here to comply with the users' rights and what I'm trying to achieve is exactly that. I didn't think it was spam or harassment I just sent them an email saying do you mind me re-using your content?'

CW: OK. So, I can't use a fair dealing argument. When I was reading about that at the weekend I wondered if I could say that if there was any element of caricature or parody or pastiche of Instagram—

AM: Well, no that's out of date now anyway.

CW: Oh really!? I was looking at the updated ones.

AM: Is that under UK law?

CW: Yes, IPO.gov

AM: It got pulled about 2 weeks ago.

CW: Oh did it? God.

AM: Yes, another thing for your PhD – it got pulled at the last – it was due to be—

CW: Yes, because I thought it was June?

AM: Yes, it got pulled.

CW: OK, does the context of it being research have any impact?

AM: Well I was just looking at that – section 29. Do you acknowledge where it's come from? Do you acknowledge which user... OK so say which user it came from?

CW: No, not on the web page, but I could do.

AM: Fair dealing with a, in this case artistic work for the purposes of research, but a non-commercial purpose – you're not generating any money out of this?

CW: No.

AM: 'Does not infringe any copyright in the work provided that it is accompanied by sufficient acknowledgement', Section 29 1, of the Copyright, Designs and Patents Act – CDPA, 1988.

CW: Is this available?

AM: Yes, you can find that through legislation.gov.uk – if you put 'section 29 CDPA' in Google I suspect it will come up straight away.

CW: So that might be...

AM: Yes, so thinking that through, if – this is UK – this is where the jurisdictional scope of our advice is quite important, because what you're, I guess – there's an argument – probably quite a strong argument that if what you're doing is really confined to non-commercial research and you acknowledge – there is an exception to acknowledgement if it's not practicable to do that then you don't have to, but I think in the circumstances there's no practical reason why you couldn't acknowledge where it's come from.

CW: Yes, and that acknowledgement could be – could that just be either by saying the username or linking to the user's feed?

AM: I would say you should display the username, actually. You could do both. I mean one way to do it would be to display the username with a hyperlink embedded in that to the user account.

CW: And how do we determine what is 'reasonable' there? Would it be, you know down there [points to laptop] or would it have to be massive? How prominent would it have to be?

AM: 'A sufficient acknowledgement' – well, I'm not aware off the top of my head the case law, whether there is actually any case law of what 'sufficient' means in that context, but I mean for a starting point I would say that it should – you should probably be giving it equal prominence to the other text that you're including and if you – again all these are very – this is applying the black letter of the law to what you're doing, and should be taken against the commercial practical considerations of how likely it is that somebody might be willing or minded to complain, but I think to comply with the sufficiency requirement there I'd recommend that the text is

at least the same font size as the other text that you're using and given equal prominence, so in the section underneath the photograph where you've got text displayed I'd say put it there.

CW: OK. So you just answered my next question about non-commercial, and we've also discussed whether linking would help, and it would.

AM: Yes, linking helps because of Svensson.

CW: I have a quote here, which I think may be the Svensson thing – 'The court of Justice of the European Union rules that Internet users should be free to share links to material for example photos or videos.'

AM: Yes.

CW: Ok, could I put text on the front page that would help, e.g. 'If you see your selfie in this work and don't want it to be here please email...'

AM: On the front page of the website?

CW: Because they have to enter the work via a sort of landing page – they have to click here to see the stream so I could put a sentence there giving people...

AM: That helps, but that only helps you comply with your 24-hour obligation under the API. It doesn't affect your liability or your potential liability I don't think. If what you've done does infringe copyright – I think having looked at the defence – and it is a fair dealing defence – research and private study – I think in the UK I can see some strong arguments to say given the circumstances we're talking about here, as long as you don't in due course turn this into a commercial entity where you're getting advertising or something, then you fall within the scope of section 29. Technically therefore what you're doing in the UK, even if you're accessing it through the APIs, doesn't infringe the rights of the users, so you're not doing anything that infringes the API Ts and Cs. The issue there is whether there are any other laws that apply, because presumably your website is accessible around the world.

CW: Yes, but my server is in the UK. My IP address is here.

AM: Well, I think the issue is that if it's displayed – if you're displaying a photograph in the US or Canada or China, then technically, or certainly there's an argument that the law in that jurisdiction would apply, I'm afraid.

CW: OK. We've covered what kind of damages people could claim for. What risk is there that someone would a) notice b) mind? And I don't know – what's your summary response to that?

AM: The best example I can come up with in response to that – and you may want to refer to this in your PhD – is that there was a dispute – not a case – it didn't get that far I don't think but there was an issue that arose around the time of the riots – the summer riots, so 2011 was that or 2012?

CW: I think it was 12.

AM: Well, whenever the August riots were, and the BBC published a photograph from a blogger's website without giving an acknowledgement of where that photograph was from, and the blogger then saw that – how he saw that I don't know – and then complained to the BBC, and the BBC – someone at the BBC who I'm not sure was in their job for very

long afterwards wrote back saying that any content that is publicly available on the Internet is free to use, which at the time wasn't an accurate reflection of the law, and basically he told the blogger to go away and the blogger republished that response and that resulted in certainly enough press to result in me hearing about it. So again if you put that into Google I'm sure there'd be some references to that issue. Actually as it currently stands, the law has now been clarified, updated by Svensson. The BBC's use in that context would have been permissible in that context provided they had applied the correct acknowledgment, which is what they didn't do in the first place, which is what caused the complaint. So people do find out and certainly in that example I'm aware that somebody has complained about it. The irony obviously being that the BBC is one of the largest content owners in the world and at the time they should have been aware of what they had to do with other people's content, so... I spoke to a senior lawyer at the BBC about that in relation to a talk I was giving using that as an example where she was in the audience and I wanted to make sure that she was OK with me talking about it and she said, yes it's a bit embarrassing but [inaudible].

CW: Yes. OK, so I guess that morally it's not good to make any decisions based on 'they might not notice', because they might notice, and also that wouldn't really be moral, it would be just risk.

AM: It's a risk assessment, yes.

CW: And then whether they would mind what I'm doing – that's another risk assessment.

AM: Yes – as I say I think on balance, I imagine – you never know, obviously different users are different so in the population you may find that someone that does mind, but I imagine that Instagram are probably going to be more exercised about you doing that if it does technically breach their Ts and Cs than a user might be.

CW: Yes. But they wouldn't know unless the user complained – therefore risk is low.

AM: Well certainly based on as it currently stands – I'm not aware that they have any facilities for checking those things, and the number of people that must be using their content having signed up to their APIs I imagine is enormous, so...

CW: You also have to tell them what you're using it for when you get your key. We didn't specify exactly but said it was for an artwork, so... OK, as a student of UAL am I still liable if there are any damages?

AM: That would be a matter for – did you have to sign any – did you have to sign any separate agreement with UAL when you got taken on to do your PhD?

CW: I don't think so. I'm not sure about whether when you enroll you sign anything that covers that – I didn't read it.

AM: Well, the starting point is it depends whether there's any agreement in place with UAL. Technically you're not an employee of UAL...

CW: In this capacity no, I mean I am one, but I'm not doing this under the conditions of my employment.

AM: Then I think the likelihood is that it's unlikely that there's any – it may be that – again, technically – it may be that somebody who wanted to complain took issue with UAL as well because they're the body that is overseeing the thesis,

but I think you're the primary target for liability in that context.

CW: Yes. I think you've covered this – is it morally acceptable to wait for complaints and respond immediately should they arise?

AM: I think that's a question for you isn't it? My only comment would be you wouldn't be the only person that does that. I suspect. It's more about the population's morals and how they use the Internet than anything else I suspect. I mean actually – the technical – to add a layer to that – the technical position that you're in because of the particular circumstances you're in under section 29, mean that in the UK, I think you've got good arguments that you're free to do what you're doing, so whether it's morally acceptable to do what you're doing having checked with a lawyer who said that in the UK it's OK to do what you're doing, but it might not be outside the UK puts a slight gloss on that moral question. Again I'm afraid that's for you to determine.

CW: OK – this may also be a question for UAL, but I'm just going to – I've only got 3 more. This work needs to be

available to external examiners in one year's time. What should I do if there was a cease and desist notice? Could I password protect the site and make it accessible for only those that need to see it and in this case argue for private study? So if something went horribly wrong – I mean I don't think that would happen – but if I password protected this site and said only my external examiners were going to see it – I'm not going to do that, but if I did – would all of these problems go away?

AM: If they were in the UK technically I think they would do yes. Technologically that might not help you because if it's only a link, and the link is taken down they can't post the content – you can't see the content anymore presumably.

CW: The thing is if it's just a link that's not indexed by search engines, nobody is going to know it's there.

AM: So that – in terms of risk management, whether you do it by only allowing IP addresses that tell you they're based in the UK to access the site, or you restrict it by user control, more specific user control – passwords etc., then if what you're doing is ensuring that it's only accessible in the UK, then I

think you can be confident that you fall within the scope of the fair dealing defence.

CW: OK – we’ve discussed what the consent would need to contain – you said it needs to be very simple. And my supervisor asked me to ask what the difference was between copyright and IP. Is that quite a big question? As I understand it copyright is a form of intellectual property.

AM: Yes, it’s a subset of IP. Intellectual Property covers five or – depending on how you qualify it – five or six broadly understood types of intellectual property, of which copyright is one.

CW: I have another work, which is very similar, and I wanted to know if it was subject to the same things, but I think basically it probably is.

AM: Well certainly the fair dealing exception, as long as you’re researching as part of study would apply – if there’s no commercial use. So yes.

CW: If I wanted to look at the – say for example – the US equivalent – is there a US equivalent to that?

AM: Yes, there is.

CW: Because the [inaudible] said the same thing – that I was covered in the UK and the US.

AM: Yes, so the US have fair use defences, and actually my understanding of those is they’re – partly because of the first amendment – they’re perhaps broader than the fair dealing exceptions that you have in the UK, so there’s a bit more latitude as I understand it in the US than there is here, for use for private purposes. Not necessarily this is private purposes but that’s a defence so, something to have a look out I’m sure there will be a site you can find that will give you some guidance on that.

Appendix 4

Report written by Angus McLean, following Own-it IP clinic

Own-it IP clinic

Date: Wednesday, 28 May 2014

Times: 10.45–11.30

Participant: Charlotte Webb

Background:

You contacted Own-it for advice in relation to an artwork that you have recently made, as part as your PhD, which accesses data from the Instagram application programming interface (API) and displays it on a web page (specifically, any photo tagged with the word 'Selfie' on Instagram, along with the profile information of the person who posted it). You had a number of queries including whether or not your artwork infringed the copyright of the owners of the Instagram photographs and, if so, whether there were any ways to work

around this or whether any defences would be available to you.

Advice given:

Intellectual property encompasses broadly 5 types of right which result from the expression of an idea, of which copyright is one subset. The owner of the copyright of a photograph is generally the person who took the photo. As you are currently accessing photographs through the Instagram API and are displaying them without asking the permission of the photograph takers, you are, subject to any defences that are available to you (see below), infringing their copyright. You are also in breach of Instagram's Terms of Use and the API Terms of Use. Instagram has given you access to its API and as a result you are bound by the API Terms of Use, which creates a contractual relationship between you and Instagram. It is important to note that the Instagram Terms of Use and API Terms of Use are governed by the law of California but the advice contained in this note is from a UK law perspective only.

The optimum position for you in terms of mitigating the risk of copyright infringement is to access the content you need for your artwork without going through the API so that you are not bound by the API Terms of Use. Under the recent European Court of Justice decision in *Nils Svensson and Others (C-466/12)*, internet users are free to share links to material, for example photos or videos, provided the material itself has been published freely online with the permission of the rights holder. As long as the content you link to is available to the public and you are making the content available to the same public, this will not constitute copyright infringement.

If it is not possible or desirable to access the data without going through the Instagram API, you will need to ask the permission of the copyright holder before displaying the photo to avoid infringement. It may be possible to automate a consent mechanism but in this case it is important that the program works in such a way that photos for which no permission has been received are not displayed.

There is a risk that automated permission could be viewed as spam under the API Terms of Use, which would constitute a

breach of contact. In order to mitigate the risk of any message being viewed as spam, it is important that only one message seeking consent is sent (rather than a series). In addition, you could argue that by Instagram mandating you to comply with users' rights, part of the Terms of Use, it imposes an obligation on you to seek permission. If Instagram were to take the view that your consent mechanism constituted spam that would seem to conflict with your obligation to comply with users' rights.

A further possible approach that might be available to you stems from the fact that, as a default, according to the API Terms and Conditions, all Instagram photos have the notice 'All Rights Reserved' applied to them. If you were able to search for photos where the user has removed this notice and only display photos where the user has actively chosen not to reserve their rights (thereby arguably consenting to third parties reusing their photographs), you would have a strong case for arguing that you were not infringing their copyright. However, this may be not straightforward to achieve technically and we suspect that it would drastically reduce the number of photos you are able to use.

Defences to infringement of copyright:

As it has been recently announced that the proposed fair dealing defence to copyright infringement under UK law for the purposes of caricature, parody or pastiche that had been due to come into force on 1 June 2014, has been delayed, this is not currently available.

You had a query as to whether the fact that you have produced your webpage in the context of PhD research could provide you with any defence to infringement of copyright. As discussed at our meeting, Section 29(1) Copyright, Designs and Patents Act 1988 ('CDPA') provides a fair dealing defence for the purposes of research for a non-commercial purpose provided that the dealing is accompanied by a sufficient acknowledgement of the source. As long as your research is strictly non-commercial and sufficient acknowledgement is provided through the displaying of the Instagram users' usernames and/or via a link to the photo as displayed on their Instagram account, there is a strong argument that this defence applies in your case. It is important to give the acknowledgement equal prominence (e.g. same font size) to the other text that you are displaying as part of the artwork.

However, this is a defence under UK law and there may not be an equivalent defence in other jurisdictions. The US also have fair dealing exemptions – some of which are broader than those under UK law – however as UK lawyers, we are unable to advise on US law on this point.

You had a query as to whether you could escape liability by putting text on the landing page of the site such as: 'If you see your selfie in this work and do not want it to be here, please email c.webb@arts.ac.uk'. This would not mitigate your liability but would only assist you as a take-down policy to prevent you continuing to infringe the owner's copyright. That and if you are happy to include such a statement in your webpage we can see no reason not to do so from a legal perspective.

Level of risk:

As discussed at our meeting, the advice given above is the black letter law and this does need to be balanced against practical considerations and the likelihood of enforcement.

As far as UK law is concerned, your financial liability for copyright infringement is low. If you have used someone's

content, that person is entitled to an injunction to require you to take down the content. The person whose copyright is infringed is also entitled to damages – the key financial risk in your case – which is likely to be the equivalent to the amount that you would have to pay for using a photograph in question. In theory, there may also be damages available for breach of privacy but in this situation it would be difficult to argue that the photograph-takers had a reasonable expectation of privacy given that they have posted their photographs on a social networking site with no privacy settings.

There is also a risk that Instagram will find out about your project and be unhappy with the impact on its users, which could result in Instagram terminating your account. However, the only way Instagram is likely to find out about the project is if a user (or users) complains to it.

You also had a query as to whether you or University of the Arts London would be liable if any legal claims were made as a result of the work. The answer to this depends on the contract that you signed with University of the Arts London on starting your PhD.

You had a query as to whether it is morally acceptable to wait for complaints of copyright infringement to come in and then respond immediately, rather than making provisions to avoid infringement as a starting point. This is a question for you to answer, but as you could argue that you are free to use the photographs in the way you are doing under the fair dealing exemption of section 29(1) CDPA discussed above, this may put a gloss on the moral question.

As this work needs to be available for view by external examiners in one year, you had a query as to whether the site would need to be removed should a cease or desist notice or similar be issued by an Instagram user. In this situation, the site could be password-protected and only accessible by the examiners, which, assuming that the examiners access the site from the UK, should ensure that that you fall squarely within the section 29(1) CDPA fair dealing defence discussed above.

Appendix 5

Correspondence re: Instagram terms of use,
between Silvia Baumgart (Own-it) and Charlotte
Webb, 29 March–27 April 2016

Enquiry to Own-it, made by Charlotte Webb, 29 March 2016

Dear Own it

I have a query regarding the Instagram terms of use, which
state:

'Instagram does not claim ownership of any Content that you
post on or through the Service' (Instagram, 2013). However,
by agreeing to the Terms of Use, users grant Instagram 'a
non-exclusive, fully paid and royalty-free, transferable, sub-
licensable, worldwide licence to use the Content that you post
on or through the Service, subject to the Service's Privacy
Policy' (Instagram 2013).

According to a legal blog (Law Offices of Craig Delsack, LLC),
this means that once a user has posted a photograph,
Instagram has the right to sublicense it to any company for a
fee without paying the user (see
<http://www.nyccounsel.com/business-blogs-websites/who-owns-photos-and-videos-posted-on-facebook-or-twitter/>).

Does this mean that if I were to pay, this would enable me to
use Instagram images 'freely'?

Many thanks,

Charlotte

Response from Own-it, received 27 April 2016

Dear Charlotte,

Thank you for your query dated 29 March 2016 with regard to Instagram's Terms of Use; more specifically, whether you would be able to use the images on Instagram by paying a fee or [if] such access is limited only to companies, and if so would the latter have actual free access to those contents.

This advice is limited to matters of English law. We are unable to give advice as to legal matters pertaining to any other jurisdiction, and in particular we are not able to advise as to copyright law subsisting in the United States of America. It is of note that copyright law in the USA has numerous 'fair use' provisions that do not have equivalents in English law.

It can sometimes be difficult to assess where any infringement of copyright law has taken place, and therefore which jurisdiction's copyright law is applicable in the circumstances. The analysis of the relevant jurisdiction may be very complicated, especially when acts take place on the internet, and detailed discussion of the applicable law is beyond the scope of this advice. For the purposes of this

308

note, we assume that all acts are intended to take place in the United Kingdom.

We understand your enquiry to relate to the use that you might be able to make of images posted on Instagram. As to the rights that you might be able use, the following issues arise:

The rights that the individual contributor of the image (the 'Contributor') has in relation to the image;

The rights that the Contributor grants to Instagram when posting the image on Instagram, under the Terms of Use of Instagram;

The rights that any user of Instagram (the 'User'), viewing the image posted by the Contributor on Instagram in normal browsing circumstances, has in relation to that image;

Any additional rights that Instagram might grant to the User by further agreement.

Rights of the contributor

Section 4(1)(a) of the Copyright, Designs and Patents Act 1988 (the 'Act') provides that copyright may subsist in a photograph, being an artistic work, as long as it is original.

The creator of a photograph is the 'author' for the purposes of the Act, and the author of a work is the first owner of copyright in that work (section 11(1) of the Act). The rule in section 11(1) is subject to section 11(2) of the Act, which provides that where an employee in the course of his employment makes an artistic work, his employer is the first owner of any copyright in the work. Alternatively the rule in section 11(1) is subject to any agreement to the contrary, for example, provision for vesting of copyright in a subcontractor agreement.

The owner of copyright has the exclusive right to copy the work protected by copyright, subject to any licence or agreement by the owner otherwise.

When considering the rights that Instagram may have, and may be able to sublicense to third parties, it should always be borne in mind what rights are licensed to Instagram in the first place. It would normally be safest to assume that the

Contributor is owner of the copyright in the photograph in question, although this may not necessarily be the case.

Licence from the Contributor to Instagram when uploading photos

As you have noted in your query, when a Contributor uses Instagram, he or she agrees to the Terms of Use of Instagram, which provide that the Contributor grants Instagram 'non-exclusive, fully paid and royalty-free, transferable, sub-licensable, worldwide license' to use the image/photograph ('Rights' clause 1).

This licence is unlimited in scope for Instagram and, as clause 2 of the 'Rights' section of the Terms of Use makes clear, Instagram is permitted to use an image/photograph in conjunction with advertising and promotions, and indeed sublicense an image/photograph to a third party for whatever purpose, including advertising and promotions.

However, this licence is subject to the Service's Privacy Policy, which provides, amongst other things, for you to choose to some degree who can view your image/photograph. We understand the Privacy Policy to circumscribe the scope of the

licence granted by the Contributor to Instagram and depending on the privacy settings available to the Contributor, he or she may be able to prevent Instagram from using an image/photograph for advertising and promotional purposes.

The following appear to us to be the key limitations on Instagram in relation to the Contributor's image/photograph set out in the Instagram Privacy Policy (dated 19 January 2013), at section 3:

They may share 'User Content' (which includes any image/photograph) with businesses that are legally part of the same group of companies that Instagram is part of;

They may share 'information' (which does not appear to include User Content, but is of the nature of cookies, log files and device identifiers) with third party organisations;

The Contributor may choose to share User Content with the public, in accordance with the privacy settings set by the Contributor.

Therefore, insofar as the image/photograph is available online to the public, to the extent chosen by the Contributor, Instagram has a royalty free and sub-licensable licence to that image/photograph.

Note that the Terms of Use and Privacy Policy of Instagram are governed by and construed in accordance with the laws of the State of California. For these purposes, we have assumed that enforceability of those terms is the same as under English law, although that may not be the case.

Normal rights of a User in relation to photos on Instagram

It is unclear from Instagram's Terms of Use what a User of Instagram is permitted to do with content, for example, images and photographs, in normal circumstances.

All that is said by Instagram in its Terms of Use is that the User of Instagram agrees (at 'Basic Terms' clause 7):

'to comply with all laws, rules and regulations (for example, federal, state, local and provincial) applicable to your use of

the Service and your Content (defined below), including but not limited to, copyright laws.'

Insofar as a User of Instagram is required to copy a Contributor's image/photograph, if it is simply done for the purposes of browsing the photos on the Instagram website, then this will be permitted either because the Contributor, through the selection of his or her privacy settings has granted such a licence directly, or such a sublicense is implied in the Instagram Terms of Use. We would not expect such a licence granted to the User to extend to, for example, free commercial use of a Contributor's image/photograph.

Additional rights that might be granted

Since, as described above, Instagram has a right to sublicense a Contributor's content, to the extent of the privacy settings set by that Contributor, a third party may be granted a licence to that content, within the scope of the Contributor's privacy settings. Indeed, Instagram grants such licences to third parties for use through their own APIs.

Therefore, if you wished to use images posted on the Instagram website, presumably for uses outside normal

browsing of the website, you would be required to obtain a sublicense to such images for those uses from Instagram. Simply because such images are publicly available does not mean that the Contributor or Instagram consent to any use of such images.

We cannot comment on the terms on which such a sublicense might be granted, and whether you would have to pay for such a sublicense. This would be a commercial matter between you and Instagram. You also ask whether this would enable you to use the Instagram images 'freely'. If by this you mean for any purpose whatsoever, then that would be also dictated by the terms of the sublicense granted to you by Instagram, which in turn would be limited by the privacy settings of the copyright owner, the Contributor.

Alternatively, you could ask the Contributor directly for a licence to use the images for whatever purpose required.

As to the position of companies, they are treated in law as any real person. Therefore a company would be required to obtain a licence to images found on Instagram, if it wished to use those images for anything other than normal browsing

use. Again, such a licence from either Instagram or the Contributor might or might not incur a royalty depending on the commercial terms negotiated.

We hope this information has been able to answer all your queries.

Yours sincerely

The Own-it Team

BPP Disclaimer

This advice has been prepared on behalf of Own-it by law students in BPP Pro Bono Centre's Intellectual Property Pro Bono Group. Please note that this is general advice and is not a substitute for legal advice from a qualified professional.