

## Overview

As a researcher I specialise in digital media-theory. To date I have produced several publications, listed in detail below, on the intersection of digital technology, philosophy and screen media – including film, digital art and games. My background is interdisciplinary, having completed degrees in Film Studies (University of St Andrews with Prof. David Martin-Jones), Screen Media Cultures (The University of Cambridge with Dr. Jenna Ng and Prof. Steven Connor) and my doctoral research on the affective, interactive and aesthetic dimensions of independent videogames at The University of Glasgow. Working with Professor David Martin-Jones and Timothy Scott Barker, my research was an agential-realist engagement with software and technology building on the philosophy of Karen Barad. I used several methods in my research, including the close reading of software source code, the development of software and computer games to illustrate the theories with which I was engaging, and more conventional visual studies close-reading. I am currently continuing my research into programming, human-computer interaction and games through a research programme funded by the SGSAH (Scottish Graduate School for the Arts and Humanities). Through my research I have become as comfortable with digital media theory as I am digital practice. For example, as a lecturer at Fife College, Scotland, my experience researching programming (Java, C#), film production software (Adobe CC) and 3D modelling software (Maya, 3DS Max) structured my teaching on the digital-media design and production courses. At the University of Glasgow, I similarly introduced elements of my digital theory and practice into a variety of modules including honours-level course 'Film Aesthetics' and the newly revised 'Film History and Genre'. Within the department, my research has also allowed me to assist with supervising undergraduate thesis work and aiding current PhD students. While the majority of my teaching has focused on visual analysis and close-reading, I have experience using and teaching social-scientific quantitative and qualitative research methods both from my post-doctoral research and in teaching archive and audience focused classes. I have published my research on contemporary cinema and digital-media in a variety of leading journals including *The Computer Games Journal*, *Digital Culture and Society*, *Performance Research*, *Cultural Sociology* and *Information, Communication & Society*. My work has received numerous grants from the AHRC, SGSAH and a variety of smaller institutions. I am currently in the process of publishing my PhD thesis, "Videogame Ecologies" with the Open Humanities Press, am an active member of British DiGRA, the leading academic research group videogames and digital media, and am on the editorial board of the Glasgow based, open source "Press Start" journal. My research has, within the past two years, been within the top 14% of viewed research on Academia.edu.

## Education

PhD, University of Glasgow, 2017.

Advisors: Professor David Martin-Jones  
and Dr. Timothy Scott Barker.

Doctoral Thesis:

"Videogame Ecologies: Interaction, Aesthetics  
and Affect."

My thesis focused on current ideas of interaction with software and digital games. I proposed that deep, technological readings of the software and hardware behind new-media yields a uniquely ecological model with which to reconceive of activity commonly thought of as a one-to-one relationship. Using Karen Barad's notions of intra-action and agential-realism, I further suggested that the dependencies that digital media exhibit on a micro-level (and that some allow us to explore on a macro level) are telling of the complicated material world we inhabit.

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MSc, University of Glasgow, Interactive Technology, 2018.

Following a year of teaching digital media design and production, I have engaged in a study of interactive technology at the University of Glasgow, developing networked software with fellow researchers to explore HCI concepts and digital technology in a more practical, less philosophical manner than in my doctoral research. I also furthered my experience with both non-parametric and statistical data gathering/analysis, broadening my knowledge of quantitative and qualitative methodologies.

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MPhil University of Cambridge, Screen Media Cultures, 2013.

M.Phil Thesis: "Biopower as Gameplay: Reading Lars Von Trier's *Melancholia* as Expanded Cinema"

Throughout my time at Cambridge I worked with a variety of different tutors to develop an interdisciplinary approach to screen media. With Dr. Sarah Wood I engaged with Youtube video and performance as forms of protest, with Dr. Jenna Ng, explored cinematic gaze as a site of potential interactivity while with Professor's Jacqueline Wilson and Steven Connor I developed my thesis that attempted to further a broader understanding of cinema as an interactive medium.

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University of St Andrews, Film Studies/English, M.A. 2012.

I developed the fundamental research skills that have served as the basis for my academic career since. What is more, I developed working relationships with a number of academics that have grown into research partnerships over the subsequent years.

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## Research Interests

My research specialisation is in media-theory and the intersection with screen-media and viewer experiences. In my doctoral thesis, to be published through the Open Humanities Press, I explored current thinking on user/viewer engagement with digital media in contemporary society. I questioned existing theories of interactivity and generated new ways of understanding how digitality can shape concepts of 'reality'. Although inspired by technologically centred ideas such as media-ecology, media archaeology, platform studies and software studies, my work aims to draw out the resonances these practices have with recent philosophical trends such as posthumanism, new materialism and object-oriented ontology. As such, while I investigate the underlying technological aspects of digital and screen media, I am also attuned to the various intersections with (so-called) 'natural' ecologies, aesthetics and identities therein.

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## Publications

### *Peer-reviewed journals*

Forthcoming (2018), "Playing with Materiality: An Agential-Realist Approach to Videogame Code-Injections", Information Communication and Society: Special Issue on 'Work and Play'

(2016) "Alternative Trajectories: Structuring Play Through Videogame Physics Engines", Performance Research, Vol 21. Issue 4.

(2016 with Tim Barker) "Unearthing techno-ecology: on the possibility of a technical media philosophy of ecology", Digital Culture and Society, Vol 1. Issue 1.

(2014 with Jenna Ng) "'You have all the weapons you need" — Sucker Punch and the Multiform Gaze", *Computer Games Journal*, Vol 3. Issue 2

#### *Book Chapters*

(2017) "The Colossi" in Jaime Banks, Robert Mejia, Aubrey Adams (eds.) *100 Greatest Videogame Characters* (MD: Rowman and Littlefield).

#### *Book reviews*

(2016) "Our Combative Past and Co-operative Future: Review of *The Play Versus Story Divide* in *Game Studies: Critical Essays*", *Press-Start*, Vol 3. Issue 2.

(2016) "Book Review: Shigeru Miyamoto: *Super Mario Bros.*, *Donkey Kong*, *The Legend of Zelda*", *Cultural Sociology*, Vol 10, Issue 4.

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## *Teaching Experience*

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University of Glasgow, Film, Television and Theatre Studies

2018, "Film Aesthetics", Level 3/4

2017, "Spectatorship, Audiences and Identities", Level 2

2015, "Looking, Listening and Reading", Level 1

2015-2017, Glasgow Film Studies Summer School, "Cinema and Digital Media".

In 2017 I managed and developed a new iteration of this core-course with Dr. Tim Barker. The purpose of this course was to ensure honour-level students had an ability to sufficiently contextualise close-reading of film aesthetics within a specific cultural/historical moment. While staying true to the requirements of the course and liaising with the university at School level, to meet the requirements of an honours level course, I placed a much stronger emphasis on digital media, taking the stance that digital-media is a dominant form of global film making on all production scales. The course, delivered to every University of Glasgow film-studies single-honours students, provided students with the ability to research conventional cinema and cinema/visual-theory, but also to undertake leading research into cutting-edge digital media with a comprehensive knowledge of digital theorists. Students responded very positively in end of year feedback and produced a strong grade average across the class.

In 2018, working with Dr. Harrison, we have developed a course that seeks to challenge the established canon of film-history and introduce a focus on feminist discourse throughout cinema's birth a development. We encourage all 80 of our students to adopt a material, object-centred approach to history, curating a collection of objects and responding to these objects' place in history in lieu of an essay or exam that merely engages with rapidly outdated modes of thinking within film history scholarship. To that end, I have encouraged students to develop their project-lead research in the direction of digital theory, with an emphasis on media-archaeology and platform studies.

2016 Digital Media, HNC  
Computer Game Design, HNC  
3D Modelling: Lighting and Textures, HND  
3D Modelling: Character Development, HND  
2D Animation, HNC  
Introduction to Digital Media.  
Online Asset Design.  
Introduction to Web Design.

Working within a FE environment but also teaching to degree level, I quickly became familiar with the administrative system at work and set about shaping several courses for the 100+ students I was placed in charge of. Working in tandem with the existing a previous staff at the college, I developed a demanding but industry-focused course that promoted self-reflection and analysis while also promoting the need for core skills in design and media production. I taught a range of ages skills in computer programming using an array of programming languages and development environments, computer game programming, Adobe Creative Suite design and basic animation and film production.

For example, in taking on the computer game design course, it was my responsibility to devise the delivery of required course skills. I used a number of different platforms to allow students to work through a range of different projects quickly, then use the platform they felt most comfortable with the develop a project that satisfied the assessment criteria. I began the year with an introduction to scripting and programming concepts using the visual language, MIT's Scratch. I then moved on to building the same project again in an interactive online environment, using Javascript libraries, Phaser and 3.js. All student groups, regardless of which platform they chose to adopt, were then able to develop assets for their projects in the Adobe creative cloud, to be integrated into their games. At the same time, algorithmic concepts such as recursion and 'big O' efficiency could be explored in a way that each was familiar with and felt relevantly able to access. Students for whom programming was a challenge were able to develop working prototypes of games in a visual language while more experienced programmers were able to develop stand-alone programs. Freeing up students in this way, allowed them to engage in relating their games to a specific context, identified from a number of readings discussed in seminar groups.

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## Grants

2017 Scottish Graduate School for The Arts and Humanities Research Grant

This grant enabled me to undertake the study Human Computer Interaction to an MSc level while teaching at Glasgow.

2016 Glasgow University Research Travel Grant

Funded my participation in a week-long symposium on videogames and digital media, focused on publishing research and developing networking activities.

2015 Glasgow University College Fund

Facilitated my ability to co-host an international conference "Techno-cultures" with Professor Wolfgang Ernst

2014 University of Gothenburg Travel Fund

I was invited to speak on my research into digital media at The University of Gothenburg and University of Skövde with the support of Dr. Anna Backman-Rogers

2014 AHRC Research Travel Grant

Allowed my participation in the Ecologies SiG at SCMS 2014

2013 AHRC Research Grant

Facilitated my PhD research for the course of three-years; encouraged a variety of internship and networking activities such as regular conference attendance throughout the UK

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## *Relevant Skills*

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Computer Programming	I have with experience designing desktop programs in Java and Python and designing databases with SQL.
Web Design	I have proficiency in designing for web, using HTML, CSS, Javascript and SQL databases. I have also developed using Django and JSON. I frequently hosted my own web pages to allow easier access for students to class resources and easy integration into Moodle.
Classroom software	I am highly proficient using Moodle and other classroom software such as the YACRS online quiz system.
Digital Media Design	<p>I have taught and created media using the Adobe Creative Cloud (Photoshop, Illustrator, Animate CC, Premier Pro and After Effects).</p> <p>I have also instructed in game design using Unity, Unreal and, for more basic users, MIT's Scratch.</p>
Statistical Computing	I have extensive experience using the R programming language for statistical computing. This was used throughout my PhD and post-doctoral research to generate data through parametric testing.