

## *Overview*

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My research investigates the intersection of interactive digital media, moving image studies and philosophy. My primary area of research is the interactive, aesthetic and affective potential of experimental videogames, from an interdisciplinary perspective that blurs the line between theory and practice. I have produced numerous publications on videogames, but have also published on film and digital art. I have experience teaching a range of subjects, both theoretical and practical at varied levels, including film history, film aesthetics, introductory film studies, digital cultures, videogame design, 3D modelling, programming and web design. My doctoral research on the on independent videogames was completed at The University of Glasgow with Professor David Martin-Jones and Timothy Scott Barker. Using the philosophy of Karen Barad, I utilised a range of research methods, including controlled group-play, and the close-reading of source code. Where source code was not accessible, I developed programs to illustrate my arguments. Since completing my thesis, I have developed my theoretical practice by studying interactive technologies with the department of computer science at the University of Glasgow. This has since blossomed into several projects at the intersection of the arts at technology. With publishers, Vagabond Voices, I am working with local authors to develop interactive narrative apps for their work, including interactive maps and a tarot-inspired poetry web-app. At the same time, with researchers at the University of Glasgow I am developing an interactive history of the Viking board-game, 'Tafl'. My work has received numerous grants from the AHRC, SGSAH (Scottish Graduate School of the Arts and Humanities) and a variety of smaller institutions. I am an active member of British DiGRA, the leading academic research group for videogames and digital media, and a member of the editorial board of the Glasgow based "Press-Start" Journal.

## *Recent Publications*

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### *Peer-reviewed journals*

(2018) "Videogames Beyond Representation: Intra-Acting with Independent Videogames", Proceedings of the 5<sup>th</sup> Biennial Transdisciplinary Imaging Conference, Edinburgh 2018.

(2018), "Playing with Materiality: An Agential-Realist Approach to Videogame Code-Injections", Information Communication and Society: Special Issue on 'Work and Play', Vol 21. Issue 6.

(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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## Education

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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 – forthcoming under contract – I build on existing theories of interactivity and propose a novel theory of how digitality can shape ontological philosophy. My work is inspired by technologically centred ideas such as media-ecology, media archaeology, platform studies and software studies, but I also have expertise with recent philosophical trends such as posthumanism, new materialism and object-oriented ontology. As such, though I explore the social and philosophical ramifications of digital and screen media, I am also interested in the

ecological, aesthetic and social factors that extend from them. I employ media-practice in my research, developing software to illustrate points and would welcome the chance to develop or continue any mixed-curriculum subject or to teach practice-focused courses.

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## *Teaching Experience*

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### **University of Glasgow, Film, Television and Theatre Studies**

#### **2018, with Dr. Rebecca Harrison, "Film History Aesthetics and Genre", Level 2**

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.

#### **2017, "Film Aesthetics", Level 3/4**

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.

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

I acted as a lecturer and seminar tutor to more than fifty students developing fundamental ideas of applying theory and criticism to cinema.

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

I was a seminar tutor covering the basics of the introductory film studies course, teaching more than sixty students, developing basic essay writing and presentation skills in preparation for more challenging concepts ahead.

#### **2015-2018, Glasgow Film Studies Summer School, "Cinema and Digital Media".**

I work with Dr Becky Bartlett (University of Stirling) to produce a short course on the convergence of digital media and cinema for students preparing to enter university. A focus is placed on critical thinking and originality, attempting to foster confidence in independent thought.

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### **Fife College, Centre for Creative Industries**

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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

## *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.