Post-Digital Audience Engagement Activity
in and across Visual Arts and Publishing

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Thesis submitted in partial fulfilment of the requirement for the award of PhD in Publishing Studies and Management at the Universities of Stirling and St Andrews

July 2018
Declaration

I declare that the thesis embodies the results of my own research and was composed by me. Where appropriate I have acknowledged the nature and extent of work carried out in collaboration with others included in the thesis.

Signature

Date
Abstract

This thesis conceptualises post-digital audience engagement activity in activity settings across visual arts and publishing. The research question is: how is audience engagement activity understood in and across publishing and the visual arts in the post-digital age? The central argument this thesis makes is that in the post-digital age relationships between the audience (and conceptualisations thereof) and cultural/sector organisations are undergoing a degree of transformation. Additionally, activities in the publishing industry have become significant to other areas of the creative industries, as media has begun to converge in the post-digital age. Greater understanding of audience engagement activity in this wider context bears significance for the potential roles and expanded activities that publishers can undertake.

This thesis explains the dynamics of post-digital audience engagement activity undertaken in the visual arts and publishing. Post-digital audience engagement activity is motivated towards expanding audiences, creating new relationships with audiences and developing new playful transactions. Events have a key role in expanding audiences, generating participation and transformations of activity. Other key features of post-digital audience engagement are digital tools which interact with other analogue instruments of engagement and gamification and playful features of activity drawn from games development practice.

Taking a practice-based studies approach, this research used Cultural Historical Activity Theory. The research methodology adopted a mixture of research strategies drawn from ethnography and case study research. An adaptation to the case study strategy of activity settings was used relating to the challenge of demarcating boundaries of a case while adopting a practice ontology. Qualitative data in the form of semi-structured interviews, observational fieldnotes, documents and images form the data sets for this research in three activity settings of publishing, national art collections and contemporary art. Organisations which are central to these activity settings are Publishing Scotland, National Galleries of Scotland and Dundee Contemporary Arts.
Acknowledgements

I would like to thank my supervisor Professor Claire Squires at University of Stirling for her advice, guidance and unwavering confidence in me throughout this thesis process. Warmest thanks also to my joint supervisory team at University of St Andrews, Dr Gail Greig, and Professor Nic Beech who helped me through the developmental stages of the research and challenging aspects of Cultural Historical Activity Theory. My thanks to Dr Shiona Chillas from University of St Andrews who read early chapters of my thesis and provided helpful feedback and advice for subsequent analytical chapters. Thanks also to Professor Russ Vince who read draft material and provided useful advice on analysis methods.

This PhD was funded by the University of St Andrews 600th Anniversary PhD Studentship 2013, the University of Stirling Impact Studentship 2013 and Nesta, Creative Scotland and the Arts and Humanities Research Council. I received two research and conference grants from University of Stirling to present conference papers at, The Society for the History of Authorship, Reading and Publishing Annual Conference 2015, Montreal, Canada and Literature between Paper and Pixels 2015, a conference at the Centre for Literature between Media, Aarhus University, Denmark. I am also indebted to University of St Andrews for discretionary funds which became critical for the final stages of this thesis in helping me secure childcare.

Finally, I am eternally grateful to my family for their loving help in taking care of my baby boy, Caelan, before he went to nursery in the final stages of this thesis. I am most indebted to my husband, Alexander, for his enduring love and support, and the sacrifices he made for me and this PhD. I dedicate this thesis to Alexander, Caelan and my late grandpa, Richard.
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List of Abbreviations

ASQ      Activity Setting Question
CHAT     Cultural Historical Activity Theory
CReATeS Consortium for Research into Arts and Technology in Scotland
DCA      Dundee Contemporary Arts
LBF      London Book Fair
NGS      National Galleries of Scotland
PDMC     Publishing for Digital Minds Conference
SIC      Standard Industrial Classification
SOC      Standard Occupational Classification
UNESCO   The United Nations Educational, Scientific and Cultural Organisation
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Introduction

This thesis conceptualises audience engagement activity in the post-digital age in the fields of visual arts, literature and publishing. The research question is: how is audience engagement activity understood in and across publishing and the visual arts in the post-digital age?

This research was developed in relation to an investigation of how cultural organisations were working on audience engagement strategies incorporating digital technologies in order to explore how they could improve engaging with audiences on a deeper and/or broader level. That investigation was conducted by the Consortium for Research into Arts and Technology in Scotland (CReATeS).\(^1\) The empirical focus for CReATeS researchers were ten collaborative Digital R&D projects conducted in Scotland between 2012 and 2014 (Consortium for Research into Arts and Technology in Scotland CReATeS 2014). CReATeS focussed on the research areas of: collaborations between arts organisations and technology partners; the relationships between the collaborative projects and the wider cultural context in Scotland; and the research methodologies and approaches in place for understanding the developments for innovation in the arts and participating organisations (Consortium for Research into Arts and Technology in Scotland CReATeS 2014, p.4). The ten projects outlined below were supported by the Digital R&D Fund for the Arts and Culture in Scotland (Digital R&D Fund).\(^2\)

There were two rounds of Digital R&D projects. The first round included: The National Piping Centre working with Yellow Brick House to develop an online teaching facility (Squires 2014c); An Iodhlann, a heritage archive on the island of Tiree working with Community Information Technology to develop an app which visitors to Tiree could use to access historical information across the island (Squires 2014b); The Lyceum Theatre and the Cultural Quarter working with TicToc to

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1 The CReATeS team included researchers from the Universities of Stirling, Strathclyde and St Andrews.
2 The Digital R&D Fund was formed in a partnership between The Arts and Humanities Research Council, Creative Scotland and Nesta (Nesta 2012). Creative Scotland is the public organisation which supports the arts, screen and creative industries across Scotland (Creative Scotland 2016). The Scottish Government (2018) provides annual funding for Creative Scotland, which is one of five national public bodies responsible for “preserving and promoting Scotland’s art, culture and heritage”. Creative Scotland receives funds for the arts, screen and creative industries. This national body has a particular remit which is shaped in part by the Scottish Government and in part by public consultation (Scottish Government 2018). Nesta is a charitable foundation which supports innovation in industry (Nesta 2013). Nesta (2015) provides an overview of the development of the Digital R&D Fund across the UK.
develop a website which aimed to promote the activities of those venues across the
art forms of theatre, film, dance and music (Berridge & Eikhof 2014); Dundee
Contemporary Arts (DCA) working with Lucky Frame and Denki to produce game-
lke strategies for engagement with their audiences (Greig & Beech 2014); The
National Galleries of Scotland (NGS) working with Kotikan to produce the app
ArtHunter to encourage visitors to find selected artworks in the gallery (Michael
2014); and the Glasgow Film Theatre and Edinburgh Filmhouse working with
Distriﬁ to produce an online player to enable remote viewing of ﬁlms in their
cinema programme (MacKenzie 2014).

The second round of funded projects involved: The Audience Business
working with Whitespace to develop an app for Facebook with the aim of expanding
audience ticket sales and engagement with Edinburgh's cultural organisations (Ray
Murray 2014); The National Theatre of Scotland working with We Are Everyone,
the technology partner and FLIP – Disability Equality in the Arts, to develop a
system which aimed to improve the experience of the performance for audience
members with visual and/or hearing impairments (Berridge & Greig 2014);
Publishing Scotland which worked with Spot Speciﬁc and Bibliographic Data
Services to develop an app which aimed to commemorate Scotland's heritage of
literature (Squires 2014a); and the Scottish Documentary Institute which worked
with Distriﬁ to create a new fundraising tool (MacKenzie 2014b).³

These projects, involving a spectrum of artforms including theatre, art,
publishing, music and heritage, provided the empirical settings for the questions of
this research. The methodology chapter explains in more detail which projects were
selected for the subsequent ﬁeldwork of this research, and the reasons why. The
selection was based on the outcomes of the literature review, which situates this
research within the broader academic positioning, theoretical and conceptual context
and provides the rationale for this research topic and approach. The three Digital
R&D Fund projects selected involved cultural organisations situated in visual arts
and publishing: Publishing Scotland, NGS and DCA. As set out in the methodology,
these organisations became the central foci of activity settings for the exploration of
audience engagement activity.

³ The ﬁnal report and individual reports on each project are available from Nesta (Consortium for
Research into Arts and Technology in Scotland CReATeS 2014).
In the inductive and abductive process of this research two areas of exploration fed into the refinement of the research questions: Technology and Process, and Audience Engagement. The mesh of activities involving arts organisations, audiences and the cultural product/experience is core to this research. The conditions and kinds of activity happening in this space of audience engagement have been investigated by this research, which has produced the thesis of a conceptualisation of audience engagement activity in the post-digital age.

Three sub research questions were explored in this research. Firstly: what happens in playful and experimental projects exploring different uses for digital technologies and what are the implications of gamification and play on organising processes in and around audience engagement activities? Secondly: how are cultural works in publishing and the visual arts mediated? i.e. what are the approaches and processes of audience engagement activity and how are they carried out? Lastly: what are the implications of hybrid uses of technology (different mediums and formats across the activity settings) for audience engagement activity and the cultural experience, and what are the implications of new kinds of co-productive or co-creative relationships with audiences on our understanding of gatekeeping and curating (key activities of cultural/sector organisations in these activity settings and more broadly)?

The literature review sets out the academic ground on which this thesis is situated and the rationale for the aims and questions of the research as detailed above, as well as the chosen research approach. This research was carried out jointly in Publishing Studies in the division of Literature and Languages, Faculty of Arts and Humanities, University of Stirling and, the School of Management, a primarily social sciences discipline at the University of St Andrews. It has consequently drawn on the academic literature from both research areas of publishing and organisation studies. The creative industries and cultural studies are areas of common ground for both fields of research. Discussion of the creative industries and the cultural industries in the literature review highlights differences in understandings of the two terms. The creative industries is a label for the industrial sector which incorporates the variety of cultural and creative production and consumption in the UK and internationally. The creative industries are generally understood in terms of profitable activity of culture and creativity. The cultural industries term is a legacy of the Frankfurt School and is understood from the critical stance of the
commercialisation of culture. A focus on media convergence as well as the consequences of digital technologies, which include diversifying activity of publishers and other media companies, provides a point of departure for the literature review. In addition to providing the rationale for the subsequent direction of the research questions, the literature review also provided the rationale for taking a practice-based approach.

The methodology chapter explains the value of Cultural Historical Activity Theory (CHAT) in the selected research approach within the practice-based family of theories. Qualitative data was gathered between October 2014 and March 2016. The research data includes interviews, published materials and observations. The methodology details the methods used in gathering the research data and conducting analysis, which led to the analytical themes which form this thesis.

Three findings chapters in Part II set out the data derived from each of the activity settings. These chapters are then referred to in the subsequent analysis chapters which discuss analysis of the themes: Events; Engaging Audiences through Play; Gatekeeping and Instruments of Audience Engagement.

As stated earlier, in a post-digital frame concepts of audience engagement activity have become increasingly relevant and bear significance for a publishing industry keen to adapt as a result of digital disruption. This thesis proposes and argues for a conceptualisation of audience engagement activity in relation to complex production and consumption activities across the fields of visual arts, literature and games in the broader creative industries, created through the lens of practice-based studies.

This thesis aims primarily to contribute to the field of publishing studies. It shows that using the approach of CHAT brings the contribution of valuable insights to audience engagement activity, as it relates to on-going cultural and creative practices across the broader creative industries context in the post-digital age. The thesis unpicks complex relationships and interactions of producing and consuming activity in the fields of visual arts, literature and publishing. It also provides a view of how audience engagement activity, understood in the nuances described by the findings and analysis, enhances and encourages audiences to engage with cultural/sector organisations and what they are doing in new meaningful ways.
1 Literature Review and Academic Positioning

This interdisciplinary research draws from literature in the fields of both publishing studies and organisation studies. It adopts the research approach CHAT from organisation studies, which is not known to have been used previously in publishing studies. Publishing studies is most commonly situated in the arts and humanities and was initially a vocationally focussed area of study. It has evolved to incorporate a range of disciplines relevant to the research of the book and wider aspects of the publishing industry. Scholars have developed research which incorporates rigorous critical and analytical approaches to the study of a range of book and publishing related sub-topics and fields (Murray 2006). Towards the end of the twentieth century the relationship between the book and other cultural mediums was acknowledged as the term ““culture industries”” was drawn from the Frankfurt School (Murray 2006, p.5). Scholars aimed to move from descriptive guides of publishing viewed as a genteel cottage industry towards the mass industrial commercial industry that it had become (Murray 2006, p.5). Publishing Studies has since become a diverse field of research activity that incorporates scholars from: Book History, Communication, Media, Cultural Studies, Sociology and Nationalist and Post-Colonial Studies (Murray 2006). Organization studies is a similar field of research in terms of its relationship to industry and in terms of scholars in this area who also draw on a range of approaches from philosophy and the Frankfurt School. Organization studies evolved from the changes brought by industrial capitalism in the late nineteenth and early twentieth century. As large scale industry changed social and political life, organizational theory was developed to bring order to the perennial conflicts of “collective needs” of society and the “individual” (Reed 2006, p.2). Organization studies today incorporates a range of enquiry into organizations and management. The philosophy of social sciences has had direct and indirect relationships with organisation studies as the discipline has evolved (Turner 2006, p.409).

The scope of this literature review includes a wide-ranging subject matter linked to the central research topic of this thesis, of audience engagement activity amongst complex processes of cultural production and consumption in relation to technology use in the post-digital age. This central research topic is approached from different perspectives relating to the two terms creative industries and cultural industries, and the empirical areas of art, culture and heritage associated with them.
This broad ranging literature review is required because the Digital R&D Fund projects of the CReATeS research, which this PhD research was set up in relation to, involved the spectrum of art forms. The project collaborations joined the areas of arts and culture with technology and research. They involved games and software developers, and university researchers. The literature review sets out current research undertaken in this area. Areas of common ground between publishing studies and management and organisation studies are discussed, which demarcates the research area this thesis and research questions are situated in.

Cultural Production and Consumption: Technology and Culture

A key aspect of this research is the confluence of technology and culture. In particular this research is concerned with cultural producing and consuming, the transformations that technology developments have made to these processes and the associated emergent relationships with audiences. An overview of the creative industries provides key terms and concepts to this research around the transitions of the consumer and the citizen, and associated areas of public and private, the production and consumption of culture. Issues around definitional ambiguity in the creative industries and the evolution of this term from the cultural industries and the culture industry highlight an ambiguity around what people actually do in the creative industries. This was a core reason for the practice-based approach that this research took. The practice-based approach, ontology and CHAT, which proved ideal for the aims of this research is discussed in Chapter 2. Adopting a practice-based approach means focussing on practice and activity. This approach allows for a departure from the problem of definitions and contested terms in the literature around the creative industries, which are outlined below.

Creative Industries in the UK

Developments in the understanding of activity in the creative industries and relationships with the term cultural industries form the grounding of this research in relation to the Digital R&D projects and the broader research topic described previously. The creative industries is a label for an area of research, including but not limited to the fields of publishing studies and organisation studies. The creative

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4 For example, a body of literature addresses the creative industries from economic and policy perspectives (Flew 2002; Flew 2005; Flew 2012; Potts et al. 2008; Markusen et al. 2008; Throsby 2008).
industries represent a large area of cultural and creative activity grouped together as an industrial sector, which academic research studies. Activity in the creative industries includes: games and software design; visual arts and design; antiques, heritage and museums; theatre and the performing arts; film and cinema; publishing and literature (UK Government 2001).

The Creative Industries Mapping Documents first brought the term creative industries into discourse on policy. The timing of this government publication by the Department of Culture, Media and Sport (DCMS) was attributed to the start of debates around the definitions of the term (Flew 2012; Howkins 2002; Hesmondhalgh & Pratt 2005; Garnham 2005; Flew 2002; Roodhouse 2008). The creative industries sector was defined as:

those industries that have their origin in individual creativity, skill and talent, and which have a potential for wealth and job creation through the generation and exploitation of intellectual property (Smith & Department for Culture Media and Sport 2001, p.4).

A subsequent definition of the creative industries which located the sector more squarely with developments in technology articulated that:

The idea of the Creative Industries seeks to describe the conceptual and practical convergence of the Creative Arts (individual talent) with Cultural Industries (mass scale), in the context of New Media Technologies (ICTs) within a New Knowledge Economy, for the use of the newly Interactive Citizen-Consumers (Hartley 2005, p.5).

Key to this understanding was the idea that creativity permeated all areas of the new economy and society, such as education and health, and was no longer restricted to the arts (Hartley 2005, p27). This new economy is one which includes the development of the service industries. Industry is no longer solely focussed on the manufacturing of goods and products but includes the addition of knowledge and information services, which the creative industries is most keenly aligned to (Hartley 2005, p27). In this context, the historically separate distinctions of public and private spheres and correspondingly the citizen and the consumer are intermeshed as boundaries are blurred with the development of personal and networked computing (and subsequently Web 2.0) (Hartley 2005, pp.20-21). The consumer, who purchases

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5 In Scotland, the creative industries comprise of 15000 businesses providing around 70000 jobs as well as freelance work. Students on creative courses are also included as part of the creative industries (The Scottish Government 2015).

6 The Scottish government currently employ a relatively unchanged definition (The Scottish Government 2015).
goods for personal use, is linked to the pursuit of comfort and the ideals of business since the industrial revolution. The citizen, who is legally recognised as a subject or national of a state or commonwealth and has social rights, is linked to government and the pursuit of freedom. The consumer and the citizen are entwined in a historical relationship but each reflect two distinct areas of private and public life respectively (Hartley 2005, p.9).

Problems with fluctuations in unclear definitions for creative industries policy, had effects on management in the creative industries and research in the area (Roodhouse 2008). The UK Government office of statistics Standard Occupational Classification (SOC) and Standard Industrial Classification (SIC) did not help clarify the situation (Roodhouse 2008). The SIC codes were considered inadequate for accurately reflecting the “part-time, transient and event-driven nature of activities in the cultural and creative sectors” (Dempster 2012, p.14). The Creative Industries Observatory aimed to understand relationships between sectors of the creative industries and actual activity (Dempster 2012, p.11). Data became too unreliable for statisticians and economists and the variations in the definitions became more problematic when used to determine value of artistic endeavours (Roodhouse 2008, p.17). Despite attempts to bring regular definitions to the sector by the DCMS, the whole sector was said to be weakened by a “paucity of empirical evidence on the visual arts” (Roodhouse 2008, p.17). Bilton (2007, p.xvi) also supported this view and criticised the DCMS definition for being based on the assumptions of politicians about creativity and what it could be used for.

The creative industries term is viewed as a natural progression and replacement of the term cultural industries. However, an alternative view considers the creative industries term as distinctly separate to the cultural industries. Those who view the two terms separately understand the creative industries as the connection of arts and creativity to the economic areas of technology and science, and the cultural industries in closer alignment to traditional concepts of fine arts (Flew 2012, p.59). A third view posits the creative industries joined together the terms creative arts and cultural industries (Hartley 2005, p.6). In this view, the

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7 For example, UNESCO used the definition of the cultural industries to subsequently build policies on this grounding (Flew 2012, p.60).
8 The concept of the creative arts derives from civic humanism and is closely associated with subsidised arts. The earl of Shaftesbury, Sir Joshua Reynolds brought back the separation between the useful crafts and the liberal arts (Hartley 2005, p.7). This legacy is present today, more so in the European context than in America (Hartley 2005, p.5).
purpose of the creative industries idea is to bring together creativity with the market, which is not envisaged in terms of the aristocracy or the servile worker (Hartley 2005, p.9). Hartley exemplifies this shift from the mass consumer audience of entertainment in the industrial model to the interactive, but still passive audience with more choice:

The mass, industrial model of consumption, i.e. a disciplined industrial workforce consuming mass entertainment via spectator tourism, media, and sport, has developed into a customized, interactive partnership based not on mass persuasion, manipulation, and passivity but on difference, affinity, and informed choice (Hartley 2005, p.9).

As mentioned earlier historically separate concepts of citizen and consumer have become intermeshed in the creative industries. This is thought to be due to key differences of the scale of manufacturing and organisations in addition to the organisation of production, between the creative industries and other sectors (Hartley 2005, p.23). Hartley hints at the context of technological change and the opportunities this has afforded the consumer/citizen with the quote above. Further contextualisation of technology and mass commercialisation of culture is provided with the developments of the term Culture Industry (the historical backdrop to the Creative Industries).

**Mass Industrialisation of Culture**

Technology developments and the mass industrialisation of culture was first critiqued by philosophers from the Frankfurt School of Critical Theory, Adorno and Horkheimer. The origins of the term Cultural Industries is attributed to the term Culture Industry developed by Adorno and Horkheimer. Their critique of the commercialisation and mass production of the artwork or cultural product, titled *Kulturkritik*, has been attributed as the grounding work for the emergent theory on the creative industries (Flew 2012, pp.61–62). For Adorno and Horkheimer, culture was believed to be the highest form of art reflecting the world, which could posit “utopian” ideals for alternatives to the status quo (Hesmondhalgh 2007, p.16). The moralistic core of culture was believed to be at risk by capitalist industrial activity (Hesmondhalgh 2007, p.16). The resulting term Culture Industry became synonymous with further arguments against the mass industrialisation of culture by Adorno and Horkheimer (Hesmondhalgh 2007, p.16). As with the creative industries, developments in technology and the resulting mass industrialisation of culture provoked new opinions about the resulting changes, and critiques in production and
consumption. French sociologists, including Miège (1979; 1989), developed the term Cultural Industries, arguing that there was no single industry of culture but several industries involved with differing ways of operating. Key differences between the two schools of thought were the pessimistic view of the Frankfurt School of the commodification of culture, one of the threats of capitalist industrialism; and the ambivalent view of the French sociologists of the cultural industries in a state of complexity and contest in relation to the process of capitalism of culture (Hesmondhalgh 2007, p.17). The cultural industries approach allowed for the observation of differences between the cultural industries to other forms of industry (Hesmondhalgh 2007, p.35). The approach is focussed on the production and circulation of cultural works and it accommodates for a focus on audience behaviour. Production and consumption are not considered separately, but rather seen as parts of a complex process (Hesmondhalgh 2007, p.36).

Viewed as a sector, the cultural industries have the common aim of making texts, which are defined as:

- cultural ‘works’ of all kinds: programmes, films, records, books, comics, images, magazines, newspapers and so on produced by the cultural industries (Hesmondhalgh 2007, p.2).

Producers compete for the same resources such as consumer income, advertising revenue, consumption time and skilled creative and technical labour (Hesmondhalgh 2007, p.13). Publishing is viewed as a core cultural industry, whereas art galleries are considered a peripheral cultural industry. The core industries produce and re-produce texts in large volumes, whereas the peripheral cultural industries produce a comparatively smaller number of texts, e.g. the exhibition presenting unique artworks. This core and peripheral industry activity are said to have important relationships in relation to production processes involved. In the peripheries, the reproduction of texts use semi-industrial or non-industrial methods (Hesmondhalgh 2007, p.13). In the visual arts reproduction is limited, whereas in publishing

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9 Approaches to the study of culture in the Cultural Industries tradition include: media and cultural economics; liberal-pluralist communication studies (which focus on the effect of mass media on political views and political communications); political economy (which focus on power); and sociology of culture and organisational and management studies (which focus on the organisations in the cultural industries) (Hesmondhalgh 2007, p.32). The Cultural Industries approach was established in Europe as a development of the work of scholars, amongst others Miège (1979; 1989) and Garnham (2005). The Schiller-McChesney tradition was established in North America, a political economy approach with a focus on power, which neglected to incorporate the complex and contradictory nature of the process involved in creating cultural commodities (Hesmondhalgh 2007, p.36).
reproduction is maximised. Of relevance to this research is the acknowledgement that “core and peripheral industries interact with each other in important ways” (Hesmondhalgh 2007, p.13). This is an important point in relation to the ways in which this research looks across activity in the visual arts and in the publishing industry. Furthermore, Hesmondhalgh acknowledges that conceptions of cultural industries audiences are changing:

there is greater emphasis on audience research, marketing and addressing ‘niche’ audiences [...] the cultural tastes and habits of audiences have become more complex. The production and consumption of cultural texts and the turnover of tastes and fashions has quickened (Hesmondhalgh 2007, p.2).

The complex history around the development of the two terms Cultural Industries and Creative Industries has been shown. This began with the pessimistic views of Adorno and Horkheimer around the commodification of culture, which are aligned with the negative impacts of mass production technologies on the art and craft of production (Benjamin 1969). A key point to draw from the cultural industries is the acknowledgement of a complex, contested and ambivalent view of the cultural production and consumption processes due to the unpredictable behaviour of audiences and their reception/consumption of cultural works. The interactions between core cultural industry activity in relation to the production of “texts” as described by Hesmondhalgh (2007, p.13) provides grounding for this research in terms of the empirical settings of the visual arts and the publishing industry.

Additionally, the concept of the Creative Industries with the development of a closer incorporation of the audience, consumer, citizen and “newly interactive citizen-consumers” (Hartley 2005, p.5) in relation to the arrival of digital technologies and the developed knowledge economy, adds further grounding to this research. The potential for audience participation in production and consumption processes and the changes brought by digital technologies to the creative industries are a key area of this research.

The definitional ambiguity of the creative industries and the cultural industries demonstrates the complex evolution of understandings of the terms, which stem from research on culture in philosophy and sociology. The definitional problems around the creative industries, in terms of practice and activity involved in and between the sectors of the creative industries, establish the rationale for this research to use a practice-based studies approach for a focus on practices and activities involved in the visual arts and publishing industry. The value of using
CHAT and the rationale for this choice from the practice-based studies approach is argued in chapter 2. Additionally, these debates reflected in a seam of the literature on the creative industries show there is a gap in empirical research in the visual arts, and also in understanding between actual creative industry practice and what cultural policy documents reflect.

Notwithstanding the debates around what the creative industries are, a common theme is the joining of commerce with creativity and culture and the developments in technology. With the developments in technology came the concepts of media convergence, produsage, prosumption and spreadable media. These concepts are discussed next in relation to the concepts mentioned earlier of the citizen and the consumer, which brings focus to the relationship between the consumer/public, cultural/sector organisations and audience engagement.

**Media Convergence, Participatory Culture and Gamification**

As previously discussed, an area for further research was identified around the developments of technology, subsequent understandings of the consumer, citizen, and the public, and activity involved in cultural consumption and production. Prior to a discussion of this area in the contexts of publishing and visual arts, the effects of Web 2.0 and the social network has prompted the development of the concepts of media convergence, participatory culture, spreadable media, produsage and gamification. These concepts reflect changes to relationships that audiences/consumers have with media and technology, which provide further grounding for this research.

Media convergence is a theory outlined by Jenkins (2004, p.34) that defines areas of tension and transition in the early 2000s in the media environment. Mobile technology and readily accessible internet connectivity allow for media which was formerly separate to converge via the mobile phone or laptop computer. Convergence is not about the shift in technologies but relates to the new and transforming relationships “between existing technologies, industries, markets, genres and audiences” (Jenkins 2004, p.34). Amongst the need for creative industries to re-assess what it means to consume media is the need for re-negotiations of the relationship between producers and consumers (Jenkins 2004, pp.37–38). Media ownership converged as entertainment conglomerates produced a mix of cultural products, e.g. TV programmes, films, news, magazines, books and comics. Correspondingly, developments with computing software and online connections
allow audiences to consume media in a way which combines traditionally separate formats. For example, listening to music, chatting with friends and responding to correspondence can all be done simultaneously by shuffling between windows on a computer (Jenkins 2004, p.34). Participatory consumers can also respond to a cult TV programme for example, as a fan group who produce and disseminate their comments and responses via the internet (Jenkins 2004, p.34). Digitization has blurred the lines of separation between publishers, broadcasters and music companies (Jenkins 2006a). Digital allows for the same product to be accessed at multiple points and in multiple forms for the consumer (Jenkins 2006a, p.11). Scholars from a variety of disciplines including politics, the arts, journalism, education and management studies, began to address the ways that “media change might be enabling new forms of grassroots communication and collaboration” (Jenkins 2014, p.268). The term participatory culture is explained as:

the intersection between three trends: (1) new tools and technologies [that] enable consumers to archive, annotate, appropriate and recirculate media content; (2) a range of subcultures [that] promote Do-It-Yourself (DIY) media production, a discourse that shapes how consumers have deployed those technologies [and] (3) economic trends favouring the horizontally integrated media conglomerates [that] encourage the flow of images, ideas, and narratives across multiple media channels and demand more active modes of spectatorship (Jenkins 2006b, pp.135–136).

Spreadable media, developed from participatory culture, refers to media circulated by audiences from a grassroots level and by media corporations. Spreadable media incorporates networked communities and social networks which were contributing to the circulation of media at the time (Jenkins et al. 2013). Media convergence and participatory culture also had an impact on the working practices of media companies and media professionals, which challenged, “consensual notions of what it means to work in the cultural industries” (Deuze 2007, p.244).

Produsage is a term aligned with altered traditional conceptions of production and consumption. Thus, produsage relates to concepts of media convergence, participatory culture and spreadable media. The conventional concept of production and consumption and the chain of producer to distributer to consumer no longer holds in relation to activities witnessed by consumers of content on web 2.0, for example Wikipedia (Bruns 2008, p.1). Web 2.0 is referred to as the platform for “user-led content creation” (Bruns 2008, p.2). Echoing and re-affirming the definition of the creative industries related to the networked age and the new information economy alluded to by Hartley (p.18), produsage:
provides a new paradigm emerging from the networked information economy in contrast to the production models of the industrial age, which have until now also been applied to the production of informational goods along industrial lines (Bruns 2008, p.227).

With reference back to the discussion of the creative industries, the DCMS definition includes games and software design. The concept of gamification is relevant in this research with respect to the collaborative processes of the Digital R&D projects. Gamification is “the use of game design elements in non-game contexts” (Deterding, Dixon, et al. 2011). The term originated in 2008 and was coined in the digital media industry (Deterding, Dixon, et al. 2011). Gamification has since become “an informal umbrella term for the use of video game elements in non-gaming systems to improve user experience (UX) and user engagement” (Deterding, Sicart, et al. 2011). The concept that playing games for improving areas of society outside of an entertainment context, such as the health sector, the workplace and education, is an emergent area of research and practice for a wide range of scholars. For example, the ways in which “the gamer mindset” could transform approaches to learning and education in science has been explored (Farhangi 2012). A call for papers for a special issue on Organizational Creativity, Play and Entrepreneurship, open to other disciplines including: “philosophy, sociology, anthropology, literary studies, aesthetics, management, cultural studies, political science”, asks: “How is this new creative, playful and entrepreneurial organizational life to be organized?” and “What are the organizational conditions for creativity, play and entrepreneurship?” (Hjorth et al. 2015). The field of Human Computer Interaction (HCI) has drawn on philosophies of play from Plato to Huizanga (Blythe et al. 2004). Play is said to be at the centre of human culture, “the basis of all myth and ritual and therefore behind all the great ‘forces of civilised life’, law commerce, art, literature and science” (Blythe et al. 2004, p.xv). The game is conceptualised in terms of rules designed to challenge the player, an ability to suspend the player’s sense of normal life and that it is mainly played for enjoyment (Vesa et al. 2017, p.275). A key feature of games are a goal for the player to focus on and feedback for how he/she is progressing in the game, such as points or score accrued or the statement game over. (McGonigal 2012, p.21). Games are considered distinct from play and toys. Research in HCI uses the term ludus as “rule-bound, goal-oriented play” viewed as the predominant factor in applications of gamification, and paidoa, “open, exploratory, free-form play” situated at the other end of the spectrum of kinds of play (Deterding, Dixon, et al. 2011, p.11). Hacks and jams, originating from the field of games and technology
development, are linked to concepts of gamification and play. Hacking originated in MIT in the 1950s (McGonigal 2012, p.187). It is defined as collective hands-on problem-solving which happens in highly sociable events, usually, but not necessarily working with technology (McGonigal 2012, p.187). The hack event is usually set up as a relaxed, low-risk situation of activity for participants to freely come up with new ideas and prototypes (Papadimitriou et al. 2015). Generally, the aim for hack events is open exploration of solutions to problems, without the pressure of producing a finished product. This matches the conceptualisation of play activity which is primarily focussed on “potential or virtual objects and motives” (Hakkarainen 1999, p.234).

The topics discussed so far relating to the confluence of technology and culture and the complex activity in the mesh of the citizen/consumer and production; the idea of media convergence; participatory culture, produsage and gamification, have provided the background, context and key terms for the discussion of the key focus of this thesis, audience engagement activity.

Cultural Production and Consumption: Technology and Process

Two aspects of audience engagement activity are the focus of the latter parts of this literature review. The first aspect discussed here is digital disruption and technological change as it relates to processes of production and consumption, primarily and most keenly observed, in the publishing industry. The second aspect which concludes this chapter, are concepts of audience and audience engagement in terms of communities and readers.

A key question for publishers in terms of participatory audiences and media convergence is the relationship between what publishers do and other sectors of the creative industries. For example, Hall (2014) places publishing in the context of the creative industries and the challenges that have been faced by the creative industries in relation to participatory technologies and digital convergence. She argues that instead of publishing being placed alongside other creative industries as the DCMS documents do, the publishing industry should seek to develop ways of working with other industries to create collaborations and partnerships. In relation to participatory culture and social networks, a study of the self-publishing platform Wattpad exemplified the struggles around legitimate authorship and gatekeeping roles of publishers, which are often laid bare via social media and online platforms.
In terms of user-generated content, Martens (2011) investigated the question of whether the participation of teens in co-productive activity in the multi-platform transmedia book series *The Amanda Project*, is empowering or an exploitative device by the publisher to help shape a product which will be sold more successfully to those readers.

The relationship between the publishing industry and society has been a topic of book history scholars linked to publishing studies in complex ways (Murray 2006). Book History is the study of how the book, understood as any form of document, printed or digital, cultural, legal, economic and political is produced and disseminated, but also has a reciprocal relationship with society in terms of authorship, reading, librarianship and publishing history (Rose 2003). Eschewing restricted focus on the material form of the book, book history also includes the study of how the book affected and often produced the social and cultural context through history (Darnton 2006, p.9). The reciprocal relationship between book production and history as it has evolved was the “conceptual breakthrough” made by scholars Elizabeth Eisenstein and Robert Darnton (Rose 2003, p.11). Change has been acknowledged as a constant aspect of book history and book production (Rose 2003, p.14). By showing the history of change, book history provides a perspective with regards to the publishing industry in the digital era.

![The Communications Circuit](Darnton 2006, p.12).

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10 Elizabeth Eisenstein showed that new printing press technology of the time was responsible for: scientific revolution, mobilisation of the Protestant Reformation and disseminating the successes of the Italian Renaissance in *The Printing Press as an Agent of Change* (1979) (Eliot & Rose 2007, p.1).
The Communications Circuit (figure 1) models the multi-disciplinary approaches to the study of the book and of publishers in the field of book history (Darnton 2007, p.495). This model illustrates how books were produced and circulated in society, which could be made relevant to different periods of history, in particular the period between c1400 and c1800 (Darnton 2007, p.504). Book historians use this model to relate different parts of the communications circuit with economic, social, political and cultural aspects of their situation, which were seen as the central forces acting on the process (Darnton 2006). Each stage in the process of the production and consumption of the book, and relationships of the agents involved are provided in this model. The process begins with the inception of the book at the author stage along with the publication by the publisher. The linear process of printing, shipping and bookselling are demarcated as part of the cycle until the book finally reaches the reader. Influences on this process (depicted by the circles in the middle) are the local and national, economic, social, political and legal contexts of the activity related to each part of the process (Darnton 2006, p.16).

Critics of Darnton’s communication circuit argued that the focus should be turned from human activity involved in the production and circulation of books, to a focus on the printed book or “bibliographic document” and the effects of the outside processes on that production and circulation of the text/artefact (Adams & Barker 2006, p.53). In Adams and Barker’s model, (figure 2), five areas of activity were defined as processes applied to the “bibliographic artefact”: Publication, Manufacture, Distribution, Reception, and Survival, which replace the processual

Figure 2  Adams, T.R. and Barker, N., The Whole Socio-Economic Conjuncture, 1993 (Darnton 2007, p.503)
nature of Darnton’s diagram. The afterlife of the printed book, or artefact is included in the aspect of Survival, which was addressed to an extent by Darnton’s model by the inclusion of libraries. Darnton later acknowledged he had not considered the re-use and re-publication of a document or book in other languages (Darnton 2007).

The publishing industry transformed during a period of intense conglomereration and globalisation between 1970 and 2000 (Squires 2007). The Publishing Value Chain (figure 3) is a model of the publishing value and supply chain (Thompson 2012, p.15). The supply chain depicts the development of the book at the beginning of the process, from the author to production and distribution, and the consumer/reader or institution such as the library at the end of the process. In addition to reflecting the publishing industry in the twentieth century, it attributes extra detail to the processes and stages involved in publishing a book, compared to Darnton's Communication Circuit and Adams and Barker’s Socio-Economic Conjuncture (figures 1 and 2). It also adds detail in terms of which aspects of the process at this time were completed by freelancers.

In this model of book production, the author writes and provides the content to the publisher - a step commonly mediated by an agent in trade publishing. The publisher purchases the rights to the content and produces it through the activities: editing, proof reading, typesetting, design etc., before sending it to the printer. The printer prints and binds the content to form the book and then sends these to the distributor. The distributor which is either owned or hired by the publisher stocks the books in the warehouse and fulfils the orders from retailers or wholesalers. Finally, the book reaches the hand of the reader, either in the library or in the bookshop. In this publishing supply chain, the reader has no contact with the publisher and is only concerned with the book title and the author at the point of sale or while browsing in the bookshop. The publishing value chain relates to each link in the supply chain.
which adds value to the overall product being produced (figure 3). Each time value is added the publisher (or another agent or organization) must pay for that step. Disintermediation is the cutting out of one of these steps in the value chain. For example, if the publisher deems a step too expensive related to potential gains (Thompson 2012, p.16). This concept has become key as digital technologies have developed with subsequent digital disruption in the publishing industry.

**Digital Disruption**

Digital disruption is a term used across academic literature. Most relevant to this thesis are the uses of the term and the definitions of it in the fields of media and communication, organisation studies and publishing studies. In organisation studies the theory of disruptive innovation “seeks to explain changes and new entries into established markets” (Corsi & Di Minin 2014, p.80). Disruptive innovation is defined in terms of sustainable technologies and disruptive technologies. Sustainable technologies are those which are valued by customers in the mainstream market and continue to be valued as they are developed incrementally or otherwise. Disruptive technologies are those which differ more greatly in terms of attributes and the level to which they are valued by the mainstream customers in the market. Initially these technologies are valued less than the sustainable technologies, but they increase in value to the mainstream customer market until they become disruptive to the sustainable technologies as they reach the same level or more in value. They essentially displace the sustainable technology. For example, two attributes that underwent development in the hard disk drive industry between 1976 and 1992 were maximum capacity and recording density. The industry followed these key attributes determined by the market until a smaller niche market began looking for a different attribute - the size of the hard drive. Smaller firms were initially able to meet this demand producing drives with the focus on this attribute of size. As the drives developed in this smaller market and their performance increased, drives began to perform well in all three main attribute areas and so they gradually displaced the former sustainable disk drive products. Furthermore, disruptive technologies are separated into two categories, “high-end disruptions” such as mobile phones for example, which had initial problems with reception but soon disrupted the market for home phones. “High-end disruptions” are generally categorised as those which offer “better performance on attributes that differ from those valued by mainstream customers” (Corsi & Di Minin 2014, p.79). “Low-end disruptions” are those which
offer little to no extra performance value but are cheaper than other products available. Disruptive technologies are also envisaged as a disruptive challenge not only in terms of the product and technology but also in terms of marketing. Companies are required to keep attuned to segment or niche emerging markets and trends in order to better forecast and respond to future disruptive technologies (Corsi & Di Minin 2014, p.79). Echoing the words of Corsi and Di Minin (2014), digital disruption is defined by Skog et al (2018, p.432) as:

the rapidly unfolding processes through which digital innovation comes to fundamentally alter historically sustainable logics for value creation and capture by unbundling and recombining linkages among resources or generating new ones.

Gubbins (2012) provides an overview of the challenges and changes facing the film industry as a result of digital disruption to modes of producing, distributing and consuming film. Channels for showing film have become fragmented with Video on Demand and Internet streaming services and platforms. This fragmentation has reduced the volume of audiences watching on any one channel which correlates to a reduction in interest by advertisers and hence commercial income (Gubbins 2012, p.74). Events have also become the clearest development for the film industry, where audiences seek a special experience. For example, Secret Cinema, organise film ‘happenings’ such as a screening of The Battle of Algiers under Waterloo Station in London in 2011. Festivals are key events in the film industry, such as Cannes and Berlin (Gubbins 2012, p.80).

The publishing industry models outlined previously show the complex relationships between book production and society, the distribution and consumption of books. These models provide a context for the discussion of digital disruption in the publishing industry, as they also illustrate the relationships of technology in processes of production and consumption. Thompson (2012, pp.326–338) provides details of the ways in which digital technologies had impacts on working practices for publishers since the 1980s. Key areas highlighted by Thompson, most notably changed, included the flow of content through production and delivery and sales and marketing. Email correspondence and digital files replaced printed letters and manuscripts/book proposals. Digital typesetting and page layout software also came into use in the 1990s. With the development of e-books, the need for storage space became moot. Relatedly, the bookselling activities of Amazon had started to compete heavily with bricks and mortar booksellers. Online marketing began to take hold as
the preferred route of marketing activities for publishers. As Thompson (2012, p.333) remarked, publishers were intent at this time on: “expanding their e-marketing activities and trying to understand how best to use the online environment to reach out to their readers and grow their readership”. There were also tensions for booksellers and publishers over the degree to which consumers could freely sample content of books using Amazon’s Look Inside function. The development of e-books had a slow selling rate in the beginning due to the expense of the initial outlay for a digital reader by the consumer and difficulties over which device to choose, in addition to relatively poorly developed functions in early models. There was also initial confusion by publishers over whether they had the digital rights in place to publish content in e-book format. In terms of pricing, e-books were also perceived by consumers as a format that should be cheaper than print books.

Despite the disruption outlined above, certain features are identified in a positive light and of value to the publishing industry. Thompson (2012, pp.340–343) surmises the positive aspects of e-books in contrast to printed books. The sale of e-books made book titles available to the consumer twenty-four hours a day, seven days a week. Updates of editions in print were a long and arduous task, but in digital form timescales were greatly reduced. The number of books available were greatly increased in digital formats, although titles needed to remain relevant and of use to

![Figure 4 The Digital Communications Circuit (Ray Murray and Squires 2013, p.8).](image-url)
the consumers. Searching through an e-book was a useful feature, as was the ease of portability due to the lightweight features of the e-reader devices and tablets which could store hundreds of book titles. Flexibility in terms of the user’s ability to change the typeface they were reading was welcomed. However, less desirable features of use were the sharing of content and the relative uneasiness of flicking back and forward through an e-book. The transmission of digital texts involves cost savings in materials, storage and distribution which makes the e-book title cheaper for the consumer than a printed book. Digital links to references in the e-book could be followed up by the reader immediately and images, video and music could also be added to the e-book (Thompson 2012, pp.340–343).

These positive and negative features of digital technology in terms of e-books and e-reader devices outline early reactions from the publishing industry to the challenges of digital disruption. A key revision of Darnton’s communications circuit, (figure 4), reflects the twenty-first century situation for publishers in the UK facing the subsequent challenges of digital disruption and disintermediation (Ray Murray & Squires 2013). The literary agent is added to the communications circuit and the binder is replaced with the electronic device such as the tablet or e-reader. Freelancers and outsource agencies are also included, a new addition to the communications circuit. Self-publishing by authors became an increasingly established form of activity, replacing the role of the publisher in these cases. Added to this mix of change in the industry is the aspect of the reader becoming a content-creator (Ray Murray & Squires 2013, p.4).

Another feature of digital disruption is a relatively recent publishing model based on crowdfunding models.11 Crowdfunding which appeared in response to the last big financial crash is a form of finance which rewards people who back a project pitch with a product or other reward (other than monetary) (Tondi 2017, p.34). Kickstarter, Unbound and Pentian are examples of crowdfunding platforms which help an author gain the financial resources he/she requires to self-publish content (Tondi 2017, p.34). Pentian and Unbound are hybrid crowdfunding/publisher companies, incorporating a mixture of crowdfunding ethos with traditional publisher activity (Tondi 2017, p.34). Unbound, est. 2011 focuses on books and audio books. It

11 Crowdfunding for film is in a relative state of infancy. However, the film industry has shown some examples of the advantages that crowdfunding has for partly financing a film project (e.g. The Woods (US)) as well as creating “a dialogue with audiences and a shared sense of ownership” (Gubbins 2012, p.90).
differs from other crowdfunding sites as it has a selection round for project proposals to the “acquisition editors” who make decisions on which material goes to the next stage for people to make pledges to (Tondi 2017, p.35). Unbound develops the budget and sets the production cost figure which needs to be raised for the project proposal (Tondi 2017, p.35). The author has the responsibility of making the project pitch video for the website and the marketing activity (Tondi 2017, p.35). If the project raises the target funding amount, Unbound then proceeds with the production and editorial tasks akin to the traditional publisher (Tondi 2017, p.35). A key component for crowdfunding to work well are rewards offered to people donating money for the proposed project. Pentian, mentioned earlier is another hybrid book publishing specialist crowdfunder similar to Unbound, except Pentian’s rewards are a mix of monetary and non-monetary. Supporters of the proposed project in Pentian are rewarded with a proportion of the royalties from book sales relative to the size of their pledge. The proportion of net profit from sales from a project crowdfunded by Pentian is split: 50% to project financers; 40% to the author and 10% to Pentian (Abrams 2014).

These examples of digital disruption show current developments in industry and the corresponding conceptualisations of the term. However, disruption and disruptive activity in the publishing industry is not a new phenomenon, as Johnson (2017) shows with the example of the citizen author. Johnson provides details of the position of power a citizen author occupies in terms of the discourse of the publishing industry through the lens of Foucault. A citizen author differs from a self-published author in that a citizen author writes and publishes work on social media sites, and other online platforms, which invites participation for critical discussion and creates networks of interested people in the work and its subject. Johnson (2017, p.133) writes:

> a citizen author is someone who embraces the new digital technologies to produce their own works, create new networks, communities, and followers, bypassing the gate-keeping mechanisms of the publishing industry. In choosing to forgo the traditional business model of the publishing industry the citizen author actively disrupts the discourse of the book by creating points of dispersion where new statements of the author and book are formed which challenge the industry’s conception of what a book and author can be.

The citizen author has its origins with self-publishers of the 1600s, who disrupted the publishing industry of the time by working directly with booksellers or by selling directly to their readers. In a period characterised by the end of the Licensing and
Press Act of 1662, in 1695, the strict censorship and rules which governed the activities of a select few institutions authorised to publish ended. Although this event did not coincide with a rush of new publishers or a similar volume of new works, it did broaden the extent to which individuals and publishers beyond the formerly limited institutions could print and publish books and pamphlets (Johnson 2017, p.133). Albeit, these individuals were most commonly professionals in the clergy, in education or engineers who wished to profit from the publication of their specialist knowledge. The production, promotion and selling of these works was all down to the self-publisher (Johnson 2017, p.134).

Aligned with changes to the publishing process that Ray Murray and Squires’ Digital Communications Circuit represent is an argument for publishing theory which accounts for publishing as it is understood in the digital networked age. In this view publishing is an act of mediation, defined by three key aspects of content, framing and amplification (Bhaskar 2013, p.169). Filtering and amplification are placed at the centre of what it means to publish. Amplification is defined as: “any intermediation through framing designed, according to a model, to increase the consumption or exposure or value of content” (Bhaskar 2013, p.169).


Seeking the essence of what it means to publish, Bhaskar (2013, p.169) states that “to make public” is too vague to be useful, preferring the term amplification. In
the Content Machine (figure 5), Publishing Models undergird the process of publishing, which is followed by the act of filtering. Models are conceived of in a similar light to business models, but as a more open, flexible and mutually constituting understanding of how the publisher is constituted, in both the macro and micro levels. Amplification happens through the process of framing, which forms the cultural intermediation (Bhaskar 2013, p.168).

Bhaskar writes:

publishers need a more informed idea of their role, allowing them to focus on core competencies in difficult times while building a more expansive notion of their activities. [...] A theory of publishing is a theory of mediation, of how and why cultural goods are mediated. It is a story behind media, rather than the story of a medium itself (like books or words), and has a big role to play in our understanding of communications (2013, p.4).

The requirement for publishers stated here of “a more expansive notion of their activities” (Bhaskar 2013, p.4) and a focus on the mediating activity of publishing reinforces the argument made from the discussion of the creative industries and cultural industries, for taking a practice-based approach to this research. The focus on activity and practice, especially using CHAT, allows precisely for analysis of activity and its transformation.

Post-Digital

This research is aligned with the broader context in the creative industries of media convergence. A term which has become prominent in relation to technology developments is post-digital. In a state of emergence, the post-digital concept pertains to the mix and mesh of digital and analogue technology in existence today. A working definition of post-digital describes it as:

the messy and paradoxical condition of art and media after digital technology revolutions. ‘Post-digital’ neither recognizes the distinction between ‘old’ and ‘new’ media, nor ideological affirmation of the one or the other. It merges ‘old’ and ‘new’, often applying network cultural experimentation to analogue technologies which it re-investigates and re-uses. It tends to focus on the experiential rather than the conceptual. It looks for DIY agency outside totalitarian innovation ideology, and for networking off big data capitalism. At the same time, it already has become commercialized (Andersen et al. 2014).

The practicalities of this definition are for example, how traditional materials such as oil paint are combined with digital image editing software techniques, and vinyl records are hunted down whilst music is listened to on iPods (Cramer 2014). Post-digital relates to the material and temporal status of production and consumption of a
cultural text. It is not necessarily referring to a period after digital, as digital remains a present and current part of our lives, but rather it refers to the conscious ambiguity of the material and immaterial, the digital and the analogue (Bajohr 2016, p.104). To illustrate this idea the process by which a cultural text is produced and consumed concerns both digital and material (analogue) forms of printing in Print on Demand platforms organised by certain publishers or “publishing collectives” (Bajohr 2016, p.103). As Bajohr (2016, p.104, emphasis in original) states:

> The post-digital denotes the *ontological status* of an object, ambiguously lodged between the already-evident and the still-new. As soon as it is possible to question which category applies in a given case, the post-digital offers the resistance necessary to bring back to consciousness the otherwise elusive process of technization and its resulting concept of reality.

This post-digital framing includes a relationship with the participatory consumer discussed in relation to media convergence. The do-it-yourself (DIY) maker culture alluded to in the post-digital age indicates that old boundaries between corporate and DIY cultures in the post-digital frame are less clear (Cramer 2014). *Make* for example, is a publication (including traditional craft making, how to do 3D printing and use Arduino circuit boards) said to be “instrumental for the foundation of the contemporary ‘maker movement’” (Cramer 2014). In terms of publishing and literature, post-digital is not the focus on the book as a medium itself—as going from the print book to the e-book—but rather the production of text which involves “human activity (a practice of human language)” and “the writing of digital text formats (the practice of code and computation)” (Anderson & Pold 2013).

This post-digital framing for the current context of cultural activity involving the mesh of technology today allows for the exploration of an expanded understanding of cultural organisations and their audience engagement activity: the understanding of which is not based on the development of technology from one state to the other—from print to digital—but rather incorporates the intermingling of the print and digital forms of media and tools as part of the activity of engaging audiences.

This section of the chapter has discussed the ways in which the publishing industry has transformed from the cottage industry in the past to the global conglomerates of today, with the integration of digital technologies. The resulting digital disintermediation continues to be a challenge for the publishing industry. However, in the post-digital age and recalling Bhaskar, publishing requires
conceptualisation in terms of the activity of mediating cultural goods in the different forms they take. This thesis aims to contribute to such an understanding by focussing on the relationship between audiences and the cultural organisations that provide the data for this research.

Audience Engagement

Audience engagement is an emerging activity of non-profit making arts organisations (Brown & Ratzkin 2011). Galleries and museums identified a need to maintain audience levels due to increased competition and as a result increased efforts to ensure visitors get the best understanding from the work being viewed (Brown & Ratzkin 2011, p.2). Audience engagement is understood as the:

guiding philosophy in the creation and delivery of arts experiences in which the paramount concern is maximizing impact on the participant. Others refer to this vein of work as ‘enrichment programming’ or ‘adult education’. […] we use the term ‘audience’ in the broadest sense, referring to groups of people who attend and participate in exhibitions, performances, film screenings and other types of events (Brown & Ratzkin 2011, p.5)

The ways in which museums use participatory media to engage audiences has developed with the affordances that web 2.0 allows, for example: “institutional blogs, wikis, podcasts, photo and video sharing, virtual environments, tagging, annotation and authoring tools” (Russo 2011, p.327). A comprehensive understanding of how these activities affect the cultural sector are yet to be fulfilled, although there has been a shift from the “build it and they will come” frame of mind towards cultural exchange and creative connections with existing communities as key elements for building relationships, which are sustainable with audiences (Russo 2011, p.327).12 An example of the ways in which museums could “encourage audience participation” is the British Museum’s History of the World in 100 Objects (Russo 2011, p.328). This series of podcasts, produced with the BBC and distributed through iTunes, showed how museum directors “could partner with other organisations, publish in non-traditional formats, and encourage audience participation by brokering online cultural exchanges through social media platforms”

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12 According to Russo (2011), in terms of museums creating sustained relationships with audiences who participate in their social media platforms, a clearer understanding of the types of cultural exchange they would like to see happening is required. This would include a critical re-evaluation of the current relationships that museums have with audiences and the ways in which audiences use the museums’ services.
Although this example relates to museums, it illustrates how the activity of publishing is related to audience engagement activity.

In the publishing industry, marketing activity is most closely aligned to audience engagement activity. There are however subtle differences between audience engagement and marketing activities. A key difference between publishing and non-profit making arts organisations is a central tension in publishing between commerce and culture (Squires 2009, p.40). Marketing activities in publishing cover a spectrum of: “formats, packaging, imprints, branding, bookshop taxonomies, and literary prizes” (Squires 2009, p.41). These activities have been shown to be constitutive of “constructing the meaning of literature, representing it in the marketplace and influencing its reception” (Squires 2009, p.176). However, marketing in publishing has also been described as essentially “effective selling” (Baverstock 2008, p.4).

Branding is a central role of marketing activity where the brand operates as a distinguishing factor between goods produced by companies (Murphy 1992, p.1). The brand “acts as a credible guarantee for that product or service allowing the consumer clearly to identify and specify products which genuinely offer ‘added value’” (Murphy 1992, p.3). Branding creates a set of values and product attributes which are incorporated consistently across an organisation. These core values are communicated to the consumer/public of that organisation (Murphy 1992, p.2). The “decoding” activity undertaken by the audience member in terms of evaluating the value and significance of the cultural work makes he/she a “‘co-creator’ of cultural content (a role increasingly enhanced with the internet, mobile and digital media)” (Townley et al. 2009, p.952). A brand is built through its name, the packaging design, the product itself, promotion and advertising activity, “a synthesis of physical, aesthetic, rational and emotional” aspects (Murphy 1992, p.3). In the publishing industry, branding is linked to symbolic capital which is the level of accumulated prestige and recognition in the field (Bourdieu 1993, p.7). This intangible quality is required and sought out by publishers as acquiring an increased status and reputation in the eyes of others in the industry produces higher revenue and increased ability to out-perform competitors. For example, a publisher with high symbolic value/capital can attract and make contracts with the best quality authors and agents representing authors. Similarly, authors and agents also seek to acquire symbolic capital. High regard, reputation and/or popularity of authors with readers
strengthens their position in terms of negotiations for future contracts with publishers (Thompson 2012, pp.8–9). Booksellers have also shown an increased significance of the symbolic value of books over other products such as food items or clothing (Wright 2005, p.114).

However, marketing differs from audience engagement as it incorporates branding activity, but also creates strategies for “moving products or services from the producer to the consumer in a profitable fashion” (Murphy 1992, p.3). Correspondingly, Schroeder (2005) argues for the increased understandings for marketing theory to be gained by exploring how visual artists, and others in visual culture, critique and employ branding activity. He states:

greater awareness of the connections between the traditions and conventions of visual art and production and consumption of images leads to enhanced ability to understand branding as a strategic signifying practice. [...] Successful artists can be thought of as brand managers, actively engaged in developing, nurturing and promoting themselves as recognizable ‘products’ in the competitive cultural sphere (Schroeder 2005, p.1292).

Examples of branding beyond individual artists’ activity to either create their brand or to critique brands in their work, are: the art museum shop which increasingly plays a key role in the consumer and audience experience and; the branding associated with Christie’s and Sotheby’s, “superstar artists and collectors” (Schroeder 2005, p.1293). In entertainment, media corporations such as News Corporation highlight how content is exploited across divisions of the corporation to enhance further awareness with consumers of the brand (Murray 2005, p.416). Feature films are the main source of content used to produce various items of merchandise including clothing, figurines, soundtrack CDs and DVDs. The main aim for the contemporary corporation is to transform the “household brand, to a house of brands” (Murray 2005, p.422, emphasis in original). Disney is an example whereby the corporation’s divisions of ESPN and Miramax have been developed as “quasi-independent enterprises” even though they contribute considerably to Disney’s profit. Notably, there has been a shift towards a focus on increased branding of smaller enterprises of larger conglomerates. For example, from the global conglomerate Time Warner towards the subsidiaries Warner Bros, HBO to the even granular aspects of characters (such as Harry Potter) (Murray 2005, p.422). Gubbins (2012, p.88) discusses the progression of the relationship between commercial brands and film that has gone beyond simple product placement, stating:
some brands see support for art as a kind of social capital that can strengthen its image and thus they perceive filmed content as an effective means of communicating the kind of brand image that traditional marketing cannot convey.

Gubbins (2012, p.88) concludes “brands are looking to tap into and share a relationship between content-makers and audience”. Audience engagement aims to develop an interactive relationship between the organisation and its audience. However, the subtle relationships and differences between marketing activity and audience engagement activity highlight a need for more clarity around how audience engagement in the post-digital age is conceptualised.

**Curating and Gatekeeping**

As the amount of products our society produces has continued to increase, there has been a subtle shift in emphasis from producing towards selecting from what is already present (Obrist 2014). The history of curating is traced back to Roman times when the *curatores* were tasked with keeping the aqueducts and public services running. In medieval times the *curatus*, currently a priest, was responsible for looking after the people’s souls. In the late eighteenth century the *curator* was what we commonly call the person who looks after museum collections (Obrist 2014).

Different versions of the activity of curating have evolved but in essence:

> the work of the contemporary curator remains surprisingly close to the sense in *curare* of cultivating, growing, pruning, and trying to help people and their shared contexts to thrive (Obrist 2014, p.25).

Four main functions of the contemporary curator are preservation, selection of new work, the contribution to art history and the display of collections in the gallery (Obrist 2014, p.25). The contemporary curator has become popularly known for the display of exhibitions. Comparatively the exhibition and the novel are a similar age. As Obrist (2014) reminds us:

> Exhibitions themselves are a new form, a later addition to the pantheon of classical forms such as drama, poetry and rhetoric. Like novels they are a practice that became prominent only in the last 250 years.

Post 1990, a time identified as showing a shift in curating practice, the idea of the curator in contemporary art developed as the curator became regarded as the *creator* of exhibitions which were considered as works in their own right (O’Neill 2007, p.14, emphasis added). More recently curating has been explored in relation to its use as a “buzzword” for activity of selection from abundance and a solution to the “problems of information overload” in areas from arts to finance, policy and business
(Bhaskar 2016, p.8). In the post-digital age, where information is abundant and people are online and connected in increasingly pervasive ways, curating is gaining traction as an activity of great value for the consumer (Bhaskar 2016, p.8). Key to good curation is “trust and knowledge” (Bhaskar 2016, p.300). This recent increased recognition of curating in areas outside of visual arts has relevance for how cultural/sector organisations such as publishers are more broadly understood, especially in terms of the audience engagement activity they undertake. The gatekeeping role of cultural/sector organisations is closely associated with curating activity. Gatekeeping is described as the selection from a wide choice of artists, whose content is produced if it is judged as profitable and taken to market (Caves 2006, p.538). The agent is described as an intermediary between the author and the gatekeeper, who matchmakes the author with the publisher (for example) and negotiates the terms between an artist/author and gatekeeper (Caves 2006, p.543).

The gatekeeping role for the selection and publication of certain content has been discussed. Associated with successful profit from this activity is the ownership of the rights to publish the content. Practically speaking, copyright law has been under development since the 1500s, when the Royal Charter to Print was given to the Universities of Cambridge and Oxford (Owen 2014b, p.1). The Statute of Anne was a key moment in copyright history, “the first official copyright act in the world” which came into force in 1710 (Owen 2014b, p.18). The regulation and application of copyright law is aimed at the control of the multiplication of copies of an author’s content to protect value for the author and the distributor of that content. Amendments to copyright law over time have usually coincided with a development in technology and subsequent changes to social-economic situations. Thus, with each new technology developed, a modification to the copyright law had to be made. With the Digital Millennium Copyright Act (DMCA), copyright entered into the regulation of consumption for the first time, as a progression to the regulation of the production of copies of works (Litman 2017, p.16).

The process of curation, distribution and the reception of cultural content just discussed is a constitutive part of cultural producing. Audience engagement activity involves complex interactions in the space of the reception of cultural content as a constitutive part of cultural producing, which this thesis aims to unpick. The next section examines more closely concepts of the audience in relation to the public and terms of readers, community and consumer.
Beginning with the idea of publishing, conceptually, to publish is defined as the verb, “to produce or issue (printed matter) for sale, to have one’s written work issued for publication, to announce formally or in public” (HarperCollins 2006, p.702). Publishing activity is described as “a process of producing a public artefact and inserting it in a particular social circuit” (Duguid 2006, p.502) and “the initial decision to multiply a text or image for distribution” (Adams & Barker 2006, p.53). Recently, publishing has also been explored in terms of artistic practice (Gilbert 2016). Publishing has been subtly differentiated as an activity which “makes a public” for the “circulation” of published content, and a “public” which is “created by publication” (Gilbert 2016, p.26). A global network of publication studios, originating in Portland, Oregon in 2009 exemplify the latter differentiation with the statement:

We attend to the social life of the book. Publication Studio is a laboratory for publication in its fullest sense—not just the production of books, but the production of a public. This public, which is more than a market, is created through physical production, digital circulation, and social gathering. Together these construct a space of conversation which beckons a public into being (Publication Studio 2014).

The meaning of public is somewhat contested. Habermas outlined the public sphere as it transformed after the Reformation and other social changes in the eighteenth and nineteenth centuries. This conceptualisation of the public sphere was set against the backdrop of the development in history of the idea of public and private life in society (Habermas 1989). This public sphere was formed in three areas: “the political realm”; the “world of letters” and the “‘town’ (market of culture products)” (Habermas 1989, p.30). These public spheres were positioned and conceived of in relation to the “private realm” of: “civil society (commodity exchange and social labour)” and the “conjugal family’s internal space (bourgeois intellectuals)” and the “Public Authority” of the “State (realm of the ‘police’)” and “Court (courtly noble society)” (Habermas 1989, p.30). The public sphere was formed of private “middle class” individuals who discussed shared issues of concern which formed “rational public debate” (Crossley & Roberts 2004, p.2). The public sphere of letters formed from debates of literature and art in coffee houses and salons transformed into political debates (Crossley & Roberts 2004, p.3). The printing press, journals, newsletters and printed pamphlets circulated information and provided resources to fuel these debates which formed public opinion (Crossley &
Roberts 2004, p.4). The short lived significance of these transformations of the public sphere was the “critical rationality” and the “force for change” that was created (Crossley & Roberts 2004, p.4). Warner defines the concept of publics as a collective group of people which are produced through their engagement with media (Dourish 2010, p.2). Warner’s definition of publics is set in contrast to the idea of the large collective group of people, “the public at large” or, at the other end of the scale, the specific audience for a performance or event (Dourish 2010, p.2). Warner defines publics as “the social body that is brought into being through a relationship between a media production and its reception.” (Dourish 2010, p.2). For example, when people read a publication like The Wall Street Journal, they identify themselves as the type of person that the publication is aimed at, as being part of the wider public that is formed in the reception of that publication (Dourish 2010, p.3). Therefore, a public has an active sociable characteristic which is formed in the reception of the cultural work. Additionally, as there are a variety of media, there are a variety of publics which are constituted during the process of engaging with a cultural work (Dourish 2010, p.3).

Groups of passionate followers of a particular media franchise are known as fans and fandoms. Fans are defined as a group of members of the public who “consciously identify as part of a larger community to which they feel some degree of commitment and loyalty” (Jenkins et al. 2013, p.166). The audience on the other hand is considered as a group of people who have gathered together to watch a film in the cinema for example, and who do not acknowledge a shared identity with others in a particular interest. They are “merely aggregates of individuals” (Jenkins et al. 2013, p.166). A key difference between audience and community is the passive aspect of the audience and the active participation of a community. In terms of publics, ideas of the nation and imagined communities were developed with regards to the invention of the printing press and the resulting large volumes of books being produced (Anderson 2006, p.43). Print-capitalism aimed to profit from as many readers as possible. Printers focussed on producing books to sell in large numbers which were written in the language most commonly spoken, with the consequence that over time minority languages died out (Anderson 2006, p.43). So called “print-languages” were created and as a result readers of printed publications could identify with others through the reading of print in the same language (Anderson 2006, p.43). In this view, imagined communities were created through print: “These fellow-readers, to whom they were connected through print, formed, in their secular,
particular, visible invisibility, the embryo of the nationally imagined community” (Anderson 2006, p.44). Reflecting on Anderson’s *Imagined Communities*, Dourish (2010, p.1) states that Warner’s concept of a public is useful in current times where “participation, rather than use, characterizes engagement with digital media”. Warner’s conceptualisation of a public reflects the contemporary version of the imagined community (Dourish 2010, p.2).13

Lines of enquiry between sociology and reading studies into the reception of texts have focussed on how books were used, for example, for the “taking of oaths, the exchanging of gifts, the awarding of prizes, and bestowing of legacies” (Darnton 2006, p.22). The history of audiences was a new field of research enabled by the availability of autobiographies of working class readers who began to comment on their thoughts about what they had been reading (Rose 2006, p.424). This area of research defined the mass audience, its “cultural diet” and the ways in which this audience responded to all kinds of cultural activity including literature and art (Rose 2006, p.424). In the 1800s ideas were not passed down from a high cultural elite to the masses but were, “diffused through a web of cultural institutions and personal networks that were often created and controlled by common readers” (Rose 2006, p.426).

Communities of readers found in literary salons, author - reader relationships, face-to-face book clubs, TV programmes, chatrooms and other formal programmes created by cultural authorities have been specific areas of focus in this area of reading studies (Rehberg Sedo 2011a, p.1). Reading is conceived of as a “social process” against the backdrop of media convergence in contemporary times (Rehberg Sedo 2011b, p.1). Reading groups in the 1870s led to new areas of learning not available to older adults via an education system (Rehberg Sedo 2011a, p.5). Book clubs run by media companies on behalf of television shows like Oprah's Book Club and Richard and Judy’s Book Club associated books with TV. Richard and Judy discussed books in the studio, gained the opinions of other book clubs and became “hugely important actors in the contemporary literary print culture field”

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13 In terms of copyright, the relationship between culture and the public is also viewed of critical significance. For the arts and sciences to continue to develop it is crucial that there is a balance between what the author can control over the use of content and what the public can do with the content (Litman 2017). Negotiations over the development of copyright laws has involved the delicate balance between allowing fair use for the progression of ideas and the avoidance of exploitation of content. In America these rules have been created by major stakeholders who benefit from the profits of disseminating content and from tight copyright controls (Litman 2017).
In the online environment, “Contemporary readers engage in social practices that are unique to the digitized spaces of twenty-first century life” (Rehberg Sedo 2011a, p.7). Fan fiction is produced and shared amongst fan communities, book swapping is enabled via online platforms like LibraryThing.com and GoodReads.com where readers can exchange recommendations with their friends and networks who use the site (Rehberg Sedo 2011a, p.7).

This discussion shows how reading activity is currently understood to create meaning as an act of communication and the production of communities, rather than regarding the book as an object—as part of the literary canon. The activity of reading discussed in this chapter shows how audiences, readers and communities are understood within the field of publishing studies and book history in terms of a social and situated practice. Despite the commercial aims of the publishing industry, the term consumer is instead replaced with the term reader and author, which arguably indicates the tension mentioned earlier between commerce and culture in the publishing industry. The act of reading for publishing studies scholars and book historians has been shown to be more complex than a simple act of consumption. Reading is also a shared activity online or in face-to-face book groups, regarded as interpretive communities. The communication of texts in the publishing industry involves a two-way relationship whereby meaning is mutually-constructed between the reader, the author and the publisher.

A proposal for the future of publishing studies includes the requirement for the field to account for three main areas: contemporariness—a focus on the late twentieth and early twenty first centuries; cross media flows—relating to the positioning of book publishing in the “intermeshing” of other media such as TV, games, radio etc., and the fact that “the contemporary book is no longer solely analogue, nor purely digital, but rather a complex combination of flows between simultaneous media formats” and; cultural politics—taking an increased critical stance towards cultural theory (Murray 2006, pp.16–17). This literature review substantiates this claim and provides the context and rationale for the research of this thesis. The literature discussed in this chapter shows transformations in production in the publishing industry with regards to technology, in addition to publishing and printing being an agent of change itself. The area of reception studies and reader practices is also shown to be comprehensively addressed in the history of reading.
and in contemporary times in relation to social networks and participatory audiences/readers. However, this literature review also evidenced that a conceptualisation of audience engagement (in industry and research) is lacking in terms of activity undertaken by those inside and outside of the mainstream publishing industry—and in relation to practice outside of the literary field such as games development and the visual arts.

The discussion around ambiguous definitions of practices that form the creative industries provide a rationale to adopt a research approach which focussed on activity in the empirics of this research. The practice-based approach is the most useful research approach to take for the aims of this research: to understand and conceptualise audience engagement activity across publishing and the visual arts in the post-digital age. Preceding the methodology, the research approach is outlined in the next chapter. An overview of the practice-based approach is provided before discussing in more detail the selected analytical framework of CHAT.
2 Research Approaches

Practice-Based Studies

Practice-Based Studies are a family of approaches to research that focus on practice (and practical activity). The common aim of Practice-Based Studies is to understand knowing and knowledge as constitutive of practical understanding and doing (Gherardi 2012, p.202). Other terms for this approach include: “practice idiom, practice standpoint, [and] practice lens” (Nicolini 2013, p.2).

Research approaches included in Practice-Based Studies are derived from social sciences, most especially organisation studies, and “sociology of practice” (Gherardi 2012, p.198). Figure 6 illustrates the variances in the Practice-Based Studies approach and shows the stream of activity theory, as it relates to theories adopted and developed by other scholars. Prominent philosophers and the legacy of their work influence the varying strands of practice-based studies: Karl Marx, Ludwig Wittgenstein and Martin Heidegger (Nicolini 2013, p.40).

Figure 6 The Streams of Practice-Based Studies (Gherardi 2012, p201).

The term practice is loaded with meaning. Apart from being “what people do”, in practice-based studies, “a working practice is a collective activity undertaken in a particular place and at a particular time” (Gherardi 2012, p.202). A practice is variant
depending on the situation it is carried out in, the people it is carried out in relation to and with, and the resources available. Gherardi argues that practices of for example a nurse or a lawyer are repeated, and depending on the situation, are carried out in ways which adapt to the particular situation. In work settings practices are considered as the “units of analysis of work”, which are “partially given and partially emergent” (Gherardi 2012, p.202). The repeatable aspect of practice is what makes it so, where a practice includes elements of habit, taught and learned skill and action (Gherardi 2012, p.203). Two features of practice are the repetition of it under usual circumstances (e.g. not an emergency or unexpected event) and the adaptation to change, which are linked:

insofar as the constant reproduction of an activity generates within the community of its practitioners dynamics for the constant improvement (or disuse), adaptation or change in a practice as a response to altered conditions (Gherardi 2012, p.203).

The last key feature of practices are that they “reproduce society”, meaning practices endure through the shared and generally agreed upon values of the “‘correct way to do things’” (Gherardi 2012, p.204). Internal struggles over the right or best way to do practices is the third element that creates change in practices in the process of doing them (Gherardi 2012, p.204).

As figure 6 illustrates, there is no unified theory of practice (Nicolini 2013, p.1). Rather, within the practice view of knowing and knowledge intertwined with practical doing, there are four main developmental lines of enquiry (Gherardi 2012, p.200).

Strands of the approach include: the “cultural-aesthetic approach”—activity and practice is mediated by language and the aesthetic sensibilities required for activity (such as sight, touch and smell); “Situated Learning Theory”—learning is the underlying basis for social identity and activity and is the core aspect of “participation in practice”; “Activity Theory” which focusses on the emergent and contested object of activity in an embodied “historical and culturally constituted” setting; “Actor Network Theory (ANT), which illustrates how knowing is enacted in sociomaterial networks of human and non-human actants”; and finally, Workplace studies—the “naturalistic” study of work settings, paying close attention to interactions and ‘technology as a social practice’, or technology-in-use” (Gherardi, 2012, p.200, emphasis in original).
In relation to these streams of practice-based studies, three distinctive approaches are taken which focus on organizational contexts (Feldman & Orlikowski 2011, p.1240). The first approach is empirical, when scholars have focussed on the practices of people in organizations to generate understandings about “human agency” which do not necessarily contribute to practice theories or practice philosophy (Feldman & Orlikowski 2011, p.1240). The second approach is theoretical, whereby scholars use practice theory to understand relationships with theory that explain the “dynamics of everyday activity, how these are generated, and how they operate within different contexts and over time” (Feldman & Orlikowski 2011, p.1241). The third approach is philosophical, whereby scholars use the practice based approach with the fundamental understanding that social life is made up of practices and nothing else (Feldman & Orlikowski 2011, p.1241). Using this practice ontology, scholars take this approach to re-appraise the status of the phenomenon/a they are studying (Feldman & Orlikowski 2011, p.1241). However, some scholars use practice theory aligned with a practice ontology but do not make the “fundamental status of the phenomenon under investigation core to their research question” (Feldman & Orlikowski 2011, p.1241).

Despite the variations of approach within practice-based studies, certain key principles are agreed amongst practice theorists and philosophers (Schatzki 2001, p.10). Activity is considered to be “embodied” and “nexuses of practices are mediated” by natural or manmade objects and tools (Schatzki 2001, p.11). There is contention however around how the embodiment of practices is understood and how relevant the mediating elements to practices are to them (Schatzki 2001, p.11). Nonetheless, practice-based studies are joined by:

the belief that such phenomena as knowledge, meaning, human activity, science, power, language, social institutions, and historical transformation occur within and are aspects or components of the field of practices. The field of practices is the total nexus of interconnected human practices (Schatzki 2001, p.11).

The “linchpin of the practice approach” is that analysis either creates an account of the field of practices or uses them to locate studies of the “transformation of their subject matter” (Schatzki 2001, p.11). Three key areas of agreement in practice theories are:

1) that situated actions are consequential in the production of social life; 2) that dualisms are rejected as a way of theorizing; and 3) that relationships of mutual constitution are important (Feldman & Orlikowski 2011, p.1241).
Practice theories reject dualisms of: “mind and body, cognition and action, objective and subjective, structure and agency”, the “individual” and the “institutional” (Feldman & Orlikowski 2011, p.1242). The relational and mutual constitution of practices are not necessarily equal, which relates to aspects of power (Feldman & Orlikowski 2011, p.1242). Practice theories offer advantages to organizational studies in terms of the emphasis on “work, activity and performance in all aspects of social life” which is embodied, and interlinked with material aspects, the acceptance of a focus on the individual but in relation to the collective activities of practices, and the acknowledgement of power, conflict and politics as part of social life (Nicolini 2013, p.6).

The practice-based approach to theorising knowledge in organisations developed during the transition from the traditional industrial society dependent on manual labour to the new knowledge and information economy dependent on digital technologies (Nicolini et al. 2003, pp.4–5). This view fits with the acknowledgement that, “contemporary organizing is increasingly understood to be complex, dynamic, distributed, mobile, transient, and unprecedented” and that the practice based approach is ideal for understanding these aspects (Feldman & Orlikowski 2011, p.1240). Bourdieu’s theory of the field of cultural production has been influential to research approaches in publishing studies (Thompson 2012, pp.3–4). The habitus is changeable and rooted in historical practice, but Bourdieu fails to incorporate how practices may mutate and change over time (Nicolini 2013, pp.68–69). CHAT, however, allows for a view of how practices may change and transform. Furthermore, developments of new technologies and the difficulties that management had “using conventional approaches” prompted new directions to the understanding of knowledge in organizations away from rational-cognitive approaches and towards the use of CHAT (Blackler 1993, p.868). As stated previously, this thesis aims to conceptualise audience engagement activity across visual arts and publishing. Audience engagement activity is undergoing transformation and involves technology and processes in complex interactions amongst cultural organisations and audiences. The next section of this chapter introduces and explains the core concepts of CHAT. An overview of the origins and evolution of the theory from Marx to contemporary scholars elucidates the value of using CHAT within the practice-based studies approach for the aims of this thesis.
Cultural Historical Activity Theory

*Origins, Evolution and Central Concepts of CHAT*

As illustrated by figure 6 and the previous overview of Practice-Based-Studies, CHAT is a part of the activity theory stream of Practice-Based Studies. Three distinct generations of CHAT have their origins with Lev Vygotsky, a Russian psychologist and proponent of the cultural-historical school. Vygotsky drew on a key idea legitimised by Marx as well as German philosophies of Kant and Hegel (Engeström et al. 1999, p.19). Marx legitimised activity as an “object of consideration” in the social sciences (Nicolini 2013, p.29). The key concept Marx introduced was that praxis was any activity carried out by people with an objective to “transform the world”, which he argued was the “essence of mankind” (Nicolini 2013, p.31). By introducing this concept Marx:

introduced the idea that to understand human action one needs to focus on the whole social and historical context of that action. Only by considering the concrete totality of interconnected activities in which socially productive activities are the point of departure can one grasp the meaning of human action (Nicolini 2013, p.31).

Marx’s concept of activity links humans (mind and body), their environment and society, which “overcomes and transcends the dualism between the individual subject and the objective societal circumstances” (Engeström & Miettinen 1999, p.3). Key to this concept is the element of change, understood in terms of “practical-critical activity”, rather than in a political sense (Engeström & Miettinen 1999, p.3).

*Vygotsky’s Theory of Action: The Concept of Mediation*

Activity theory began with the breakthrough work of Vygotsky, who developed the theory of action in the 1930s. Central to Vygotsky’s theory was the concept of mediation whereby, “the human mind may be seen to be socially constituted through culturally mediated acts, imbued with the accumulated experience of those who came before.” (Greig 2008, p.54). The concept of mediation is the founding principle of

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16 Vygotsky’s Activity Theory was subsequently adopted and developed by scholars in the western hemisphere in organisation studies c.1970. The time lag is mainly due to the Cold War where research in Russia was confined and exchange amongst researchers difficult. Michael Cole, Yrjö Engeström and James Wertsch are credited for adopting and developing activity theory in the research fields of education, psychology and work and organization (Nicolini 2013, p.103). In addition to being incorporated for use in the field of Organisation studies (Engeström & Escalante 1996; Engeström 2000), the stream of CHAT relating to Vygotsky’s Activity Theory has been used as an analytical tool in the fields of Education (Postholm 2008; Roth & Lee 2007; Roth et al. 2012) and Human Computer Interaction (Nardi 1996).
CHAT (and a core principle amongst the Soviet cultural-historical school).
Mediation is the idea that an individual action is mediated by tools named artefacts which are intrinsic to human action (Engeström 1999, p.29). These artefacts are material tools “created to prompt or modulate action” (Bakhurst 2009, p.199). Material tools are usually skilfully made instruments developed in a social and cultural situation. Thus, material tools are imbued with historical activity. Non-material symbolic and cultural signs are also considered as artefacts, e.g. language and speech (Nicolini 2013, p.106). Mediation was a breakthrough concept in psychology which had implications for its relationship with social sciences (Engeström 1999, p.29). The concept of “mediation by tools and signs [...] is an idea that breaks down the Cartesian walls that isolate the individual mind from culture and society” (Engeström 1999, p.29). The breakthrough with the concept of mediation was the rejection of the “dichotomous” idea: that human action was controlled from the outside by society, in which case “human agency and transformation of social structures from below becomes an unexplained mystery”; or control came from the inside of him/herself, due to some equally mysterious biological need, urge or personal choice (Engeström 1999, p.29). The concept of mediation is observed in language and semiotics, but activity theory includes practical action entwined with thought: “people do not only, nor do they primarily just think [...] people act practically, moulding their material environments, and they do this not alone but in co-operation with others” (Blackler 1993, p.870).

Vygotsky established the link between mind and society with his theory of action and the concept of mediation. This provided the view of individual human action and thought as socially constituted, mediated by material and symbolic artefacts. However, the conscious intentions or motives behind making tools (psychological and material) which mediated actions in a collective group, i.e. human activity in society, and how this was organized remained unexplored (Greig 2008, p.55). The concept of collective activity marks the development of second-generation activity theory.

Second Generation CHAT: Concept of Activity
The second generation of CHAT is attributed to Leontiev, who drew on Vygotsky’s concept of mediated individual action to create the concept of activity (figure 7).17

17Leontiev is spelt Leont’ev by Engeström (1999, p.23), and Leontyev by Blunden (2010) but is in reference to the same person.
The concept of activity explains collective activity directed towards an object of activity, which has motive (Bakhurst 2009, p.200). Leontiev’s concept of activity brought together individual mediated action with collective activity of the group. Leontiev’s framework of the concept of activity distinguishes between collective activity, individual action and individual operation which represent three levels of consciousness (Greig 2008, p.56).

<table>
<thead>
<tr>
<th>Activity</th>
<th>Motive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Goal</td>
</tr>
<tr>
<td>Operation</td>
<td>Instrumental Conditions</td>
</tr>
</tbody>
</table>

Activity is conceptualised as the collective activity, formed over a long-term, of the group which is directed towards the motive. Actions are short-term and goal oriented. Actions and operations are carried out by individuals taking part in the collective activity. Operations are habits which happen under particular conditions (Bakhurst 2009, p.200). Automatic in nature, operations require little conscious thought in performing. For example, to boil a pot of rice, you first need to turn the tap on to fill the pot with water and turn on the stove after moving the pot to the stove. These operations form the action of boiling rice, part of the activity of cooking. The meaning of actions and operations to an individual depends on the culturally and historically developed activity they are part of (Nicolini 2013, p.108).

Leontiev’s concept of activity is understood more clearly with his example of hunting using the illustration of the stag hunt by Lucas Cranach the Elder (Figure 8, overleaf) (Greig 2008, p.57). Figure 8 illustrates the concepts of the collective object-oriented activity, individual goal directed actions and operations outlined in Leontiev’s framework above. The subjects depicted in this painting who are involved in the collective activity of stag hunting include beaters, such as the figure dressed in red, running in the centre of the image. The beater’s goal is to chase the deer. This action of chasing the deer is mediated by the stick he is holding to scare them. He fulfils this action through the operation of running. Other subjects are depicted riding on horses. These men are also chasing the deer, the action of which is mediated by the horse who carries the man in an operation of running or standing. Other men hide.
behind the treeline holding cross-bows. Their goal is to kill or wound the deer mediated by the cross-bow weapon and the operation of firing the weapon. Dogs also mediate the actions of some men who are also chasing and steering the deer towards the men with the cross-bows. A man on horseback waits on the outskirts of this activity with a horn. His goal is to communicate signals to the other men mediated by the horn, which he uses in the operation of blowing the horn to make certain sounds which are understood by the beaters and other participants of the hunt. Spectators of the hunt are sitting and standing in the boat on the river, which is kept in position by the oarsman. The oarsman’s goal is to maintain the boat’s position, fulfilled by the action of rowing which is mediated by the oars. Other subjects not depicted in the picture such as, the people who made the cross-bows, the boat and the horn did so at an earlier time to the hunt, but they must also be acknowledged for their part in the activity of hunting (Greig 2008, pp.57–58).

Leontiev used this “much-celebrated” example of hunting to argue that for humans, object and motive can be separated, but for animals they cannot (Bakhurst 2009, p.200). Animals have biological needs which their actions serve, whereas in human activity, illustrated in the example of hunting, the beater has the motive to feed and clothe himself, but his actions (e.g. chasing the deer in a certain direction with the stick away from him) serve the object of catching the deer as part of the collective activity of hunting (Bakhurst 2009, p.200). The beater identifies that his
activity is related to the wider social collective activity, the other members taking part and their individual activities (Bakhurst 2009, p.200). Furthermore, the stag hunt illustrates the complexity of the relationship between the object of activity and the motive behind it. The object of activity is to catch the stag. The motive behind this object however goes deeper than to simply fulfil the need to eat. The motive also includes the provision of a spectacle and entertainment for the people viewing the hunt in the boat, thereby demonstrating “wealth and status” (Greig, 2008, p.59).

A key development Leontiev made to CHAT was that the three levels of activity could be analysed including the “transformations going on between the levels” (Engeström 1999, p.23). For example, in the activity of driving, certain operations such as changing the gear of a manual gear-box are initially conscious requiring thought at every step and concentration to undertake as the drivers learn to drive. Through time however this operation becomes automatic, or habitual, requiring little conscious thought. Changing gear is an operation which is part of the actions of accelerating and stopping to give way to other vehicles at junctions, all driving-related actions (Nicolini 2013, p.109). This transformation can also go in the other direction. An operation under a changed circumstance, such as a challenging situation, can require the person undertaking the operation to focus consciously on each step to identify a possible change that needs to be made to the operation which in turn expands the action.

The concept of activity of a collective group and the distinction between activity, actions and operations were developed by Leontiev in the second generation of CHAT. However, Engeström (1999, p.30) saw that this concept of activity was limited to the activity of the situation and the particular group’s individual actions and operations. Engeström (1999, p.30) sought to expand the concept of activity to include the relationships of individual subjects involved in a collective activity with wider society and the ability to include collaborative working. Further development was required especially for use in organisation studies, whereby the interest lay in the rules, relationships and division of labour by people in certain work activity. Thus, the activity system was developed, in order to elaborate on Leontiev’s concept of activity, in the third generation of CHAT (Nicolini 2013, p.109).
Yrjö Engeström initiated the third generation of CHAT with the activity system to model collective activity. Working with the core concept of mediation and developing on the work of Vygotsky and Leontiev, Engeström’s activity system includes rules, division of labour and community. The activity system (figure 9) expands on Vygotsky’s triangle of mediation action, of the object, subject and mediating artefacts.

![The Basic Elements of an Activity System](Nicolini2013.png)

**Figure 9** The Basic Elements of an Activity System (Nicolini 2013, p.111).

The activity system models collective activity which is in a state of emergence (Engeström 1999, p.29). The subject represents the individuals who are collectively taking part in the activity, and who share the common object of activity (Engeström 1999, p.31). The object of activity is the element which holds together “individual actions to the collective activity” (Engeström 1999, p.31). Instruments are the mediating artefacts. The community represents the “social basis” of the activity, which is the larger community of people carrying out similar activity with a similar object (Engeström 1999, p.31). Rules represent the conventions of the activity which include tacit rules. Rules “constrain or liberate the activity and provide to the subject guidance on correct procedures and acceptable interactions to take with other community members” (Engeström 1993 in Yamagata-Lynch 2010, p.23). The division of labour refers to the way in which individuals in the subject of activity are organised, how tasks are divided amongst the community (Engeström 1999, p.31). The division of labour is defined further as “both different tasks and different power,
and status positions, and access to resources for different people and artefacts in the system” (Nicolini 2013, p.110).

The elements of the activity system are more clearly understood using the previous stag hunting example. The people depicted in the image (Figure 8) (the beaters, the men with cross-bows, the spectators, the oarsman, the people who made the tools and the person blowing the horn) are considered as the collective subject. Their actions are directed towards the collective object which is to catch the stag. As discussed previously this object is driven by the motive of hunger but also the motive to demonstrate wealth and status. The instruments are the mediating artefacts, which in the stag hunt example include, the horn, dogs, horses, cross-bows and weaponry, the boat, oars etc. The division of labour refers to the different actions carried out by the individuals, such as the beaters who are on foot and the men on horseback who are chasing the deer, the cross-bow men waiting to take their shot at the stag and the spectators watching from the safety of the boat. The rules in this example direct the actions of individuals as they work towards their object of catching the stag. In this example, the horn and the meanings of the sounds made by the person using it for the other individuals demonstrates the rules. All the people depicted in the stag hunt would also be considered as part of the larger community of people doing hunting elsewhere (Greig 2008, pp.60–61).

Lastly the outcome in Engeström’s activity system represents the larger motive for activity and provides meaning for the actions of individuals of the collective activity (Engeström 1999). The outcome is distinct from the object of activity. As the collective subject work towards their collective object of activity they fulfil various objectives which are made manifest in the outcome (Greig & Nicolini 2015, p.192). As Engeström (1999, p.31) explains: “the projected outcome is no longer momentary and situational; rather, it consists of societally important new, objectified meanings and relatively new patterns of interaction”. The outcome “gives broader meaning” to individual actions (Engeström 1999, p.31). It is the potential new pattern of activity and interaction with other activity systems, which is “projected” from the object of activity - essentially forming the motive of activity (Engeström 1999, p.31).

For example, in the activity of making music, the musician will have the object of activity to play his/her musical instrument in order to create an emotive performance, to fulfil an objective of increasing/gaining high regard amongst fellow
musicians. This same performance would involve a producer who had the object of activity to bring highly regarded musicians and their music to larger audiences so that he/she may fulfil a larger objective to make money. Together the producer’s and the musician’s activity coalesces towards the shared object of activity of making music (Greig & Nicolini 2015, p.192). This example illustrates how objects of activity can hold together an ongoing activity, in this case making music. However, the object of activity can also lead to fractious tensions, especially where older and newer objects of work come together (Greig & Nicolini 2015, p.192). Thus contradictions in CHAT are the tensions that arise with a group of people coming together to work towards a shared object of activity who bring with them their ways of working, rules and concepts (Greig & Nicolini 2015, p.193). As with the example of making music, a tension for the musician may be between making emotive music and earning money. On a more practical level, a tension could arise between the aim to bring musical performances to larger audiences outdoors as rain usually causes problems for musical instruments (Greig & Nicolini 2015, p.193).

Engeström’s activity system expanded on Leontiev’s concept of activity by extending the relationship between situated collective activity and larger society with the added element of community. The activity system, indicated as the smallest unit of analysis (Bakhurst 2009, p.201), also extended the ability to examine the relationships between individuals’ actions, how they were organised and constrained or directed by rules as they worked towards their collective object of activity. As explained in the music example above, Engeström’s developed theory of CHAT also contains the key idea that contradictions within and between elements of the activity system were inherent (Bakhurst 2009, p.201). These developments to CHAT led to the concept of expansive learning.

Expansive learning and the expansive cycle relate to an understanding of the history of activity and its transformation (Engeström 1999, p.33). Key to the basis of the expansive cycle is the conceptualisation of time in relation to action and activity (Engeström 1999, p.33). Action time is short-lived and has a finite period, whereas activity time has an ongoing cyclical nature (Engeström 1999, p.33). Cycles of activity do not always have the same characteristics and this is the basis of the concept of the expansive cycle of activity (Engeström 1999, p.33). As Engeström explains:
For the historical understanding of activity systems, expansive cycles are of crucial importance. [...] It seems promising to analyze these cycles in terms of the stepwise formation and resolution of internal contradictions in activity systems (Engeström 1999, p.33).

Expansive cycles lead to new activity systems, which are developed in a process of the relationship between internalisation and externalisation (Engeström 1999, p.33).

Internalisation relates to the community of the activity and the training and learning that novices partake in as they are socialized into the routine activity (Engeström 1999, p.33). In Engeström’s (1999, p.33) words:

Creative externalization occurs first in the form of discrete individual innovations. As the disruptions and contradictions of the activity become more demanding, internalization increasingly takes the form of critical self-reflection - and externalization, a search for solutions increases.

Thus, the relationship between contradictions of a given activity system or relationship with other activity systems reaches a point where individuals of the collective activity begin to reflect critically and seek out solutions which then become part of a new routinely carried out activity. Continuing with the music example, the contradiction faced of playing musical instruments outdoors with the potential for rain would lead to the search for alternative outdoor venues or the development of instruments that could withstand cold and wet weather (Greig & Nicolini 2015, p.193). Expansive cycles are not predefined on a determined path which is mapped out by externally measured factors, but are developed locally in the process of the cycle itself “under conditions of uncertainty” (Engeström 1999, p.34).

As Engeström states:

Expansive learning is learning what is not yet there, that is, learning to master a new way of working while designing and implementing that new way of working (Engeström & Gläveanu 2012, p.516).

Engeström’s activity system and the concept of expansive learning allows for an ability to conceptualise relationships between situated activity and the broader community with more nuanced detail of how it is organised. Importantly, Engeström’s developments to CHAT have extended the ability to see how activity arises and is transformed due to tensions and contradictions inherent within and between activity systems.

Having detailed the key concepts of CHAT of mediation, activity and contradictions, the final part of this chapter discusses the subsequent developments
of CHAT and its uses which are of particular relevance for understanding audience engagement activity undergoing a degree of transformation.

Continued Developments of CHAT and Activity Settings

The third generation of CHAT is still emergent and there are debates within this development (Bakhurst 2009). CHAT developments by scholars who have drawn on Engeström’s work focus on the links between “individuals, communities and objects of activity” (Beech et al. 2016, p.79). Current research activity using CHAT is also noted for its “nondogmatic nature” where there is a “multifaceted search for connections and hybrids between activity theory and other related traditions” (Engeström & Miettinen 1999, p.2). However, within these developments of the use of CHAT, key concepts remain: the concept of activity entails what people do as well as what they think; action is situated and embodied (Blackler 1993); Activity is considered collectively and acknowledges the social history and motives of those actions (Blackler 1993, p.875); Activity systems are a key component of approaches, which are used as a device to explore the complex network of actions that occur mutually and interact. The elements of activity systems illustrated by figure 9 are conceptualised as “mediating mechanisms,” (Blackler 1993, p.875). These mediating mechanisms create the “relationships between individuals, communities and shared endeavour” (Blackler et al. 1993, p.875). Intentionality is central to the concept of the object of activity of an activity system, which is an “intentional relationship of action” (Svabo 2009, p.365). The concept of “active participation” (Blackler 1993, p.867), which involves acknowledging that novices learn by participating in an activity in a tacit way is related to collective learning. This relates to Engeström’s concept of expansive cycles, as collective learning is when communities create new conceptions of an activity resulting in a new activity system (Blackler 1993, p.867).

Third generation CHAT analyses relationships between activity systems with a focus on contradictions (Bakhurst 2009, p.200). Objects do three things in an activity system. They provide the motivation for the activity, “orienting the effort”. They provide meaning and act as the main organizer of the elements of the activity system, but they also create relationships between activity systems. Activity objects effectively tie together other activity systems. The object of one activity system becomes the help or hindrance to another, that can then create a web of interdependent and conflicting practices. It is common for “third generation” CHAT
scholars to take two or three activity systems as units of analysis together as they interact.

CHAT allows for an analysis of the sensitivity towards “the inherently conflictual, dialectic, and developmental nature of practice” (Nicolini 2013, p.113). Activity systems evolve from a diverse range of interests and traditions of the participants, their division of labour—which involves different positions taken by participants—and different mediating symbolic or material artefacts that bring with them “strands of history embodied in rules conventions and artefacts” (Nicolini 2013, p.114). These differences are “amplified” according to Nicolini, when the activity systems interact. CHAT was envisaged by Engeström as a theory involving engaged research in practice. Activity cannot be fully understood by looking from outside and the researcher must engage and look at activity from the inside (Nicolini 2013, p.116). In this way CHAT is described as an “analytical compass” which employs ethnographic methods that provide “‘thick descriptions’ of the activity, its tools, and the contradictions they generate” (Nicolini 2013, p.116).

With the focus on the interaction of multiple activity systems comes the challenge of practically grappling with data and complex activities for analysis. As Yamagata-Lynch (2010, p.24) observes, “identifying bounded [activity] systems from real-world complex human activity and its context can become difficult and unmanageable”. Organising data into activity settings and demarcating “three planes of sociocultural analysis” is a tool for creating a framework within which to identify activity systems and how they interact in relation to the environment they are carried out in (Yamagata-Lynch 2010, p.24). Activity settings are defined as:

bounded systems related to the social environment in which object-oriented activities and goal directed actions are anchored with other object-oriented activities with similar objects (Gallimore and Tharp, 1990 in Yamagata-Lynch 2010, p.24).

Activity settings are not just physical spaces where activity happens. They also include the socially constructed view of the field in which activities happens, which are carried out towards similar objects of activity. For analysis of complex activities, and the communication of this analysis using CHAT, data organised into “three planes of activity” is an effective way to retain clarity (Yamagata-Lynch 2010, p.24). These planes of activity can be viewed in terms of the separation of lenses, which provide different scales of analysis. These lenses provide: in the largest scale, the community/institutional level of the collective subject being analysed; in the medium
scale, the interpersonal level of analysis of the collective subject being analysed and; in the smallest scale, the individual level of analysis of the collective subject being analysed (Yamagata-Lynch 2010, p.25).

The Value of CHAT for Understanding Audience Engagement Activity

Audience engagement activity observed in this research has involved people from areas of games development working in collaboration with people from areas of literature, publishing and visual arts. This activity has invariably involved a degree of experimentation, where the exact nature of the object of activity has been most emergent. Play as conceptualised by CHAT is particularly useful in this case.

In the field of education, conceptualisations of play have developed in relation to the view in CHAT that activity is motivated by, “the process itself, in the contents of the action, not in the result.” (Brostrom 1999, p.250). Most significantly for the research aims of this thesis, related to experimental audience engagement activity, play is conceptualised as, “an activity type dominated by experimenting with potential or virtual objects and motives of human activities” (Hakkarainen 1999, p.234). In terms of an activity system, play has no definable object of activity, but the “object of play must be the process itself” (El’konin, 1978, Leont’ev, 1981 in Hakkarainen 1999, p.234). Conceptualisations developed around play are drawn from Vygotsky and the cultural-historical school (Brostrom 1999, p.250). Concepts of play are related to Engeström’s expansive cycle. However, they are developed in terms of play as a precursor to learning, so called “expansive play”, rather than in terms of children learning (Brostrom 1999, p.251).

The value of using CHAT in this research is the focus on analysis of the activity as practice, and the central aspect of mediation. Specifically, CHAT provides the ability to focus on the expansion of activity, which this research has set out to investigate with regards to audience engagement activity across the sectors of publishing and visual arts. In terms of the current networked post-industrial and post-digital circumstances, CHAT allows for a view of the ways in which activity systems interact but remain distant, coming together for a project to then disperse. Additionally, with the inclusion of material artefacts in the activity system as mediating tools for activity, CHAT allows for a focus on the ways in which digital software and hardware and analogue tools mediate the activity. The disturbances and discords enabled by the analysis of single activity systems and the relationships between them allow for a view on how audience engagement activity may be
expanding. For these reasons, in addition to the central aspect of practice theories which applies to CHAT— that practice is intertwined with knowledge and mutually constituted with the social setting and community of practice—it is conducive to the interdisciplinary nature of this research situation with a focus on audience engagement activity in the empirical settings of the publishing industry and the visual arts.
3 Methodology

This chapter outlines the methodology used to conduct this research and its philosophical underpinnings. It describes when, where and how the data was collected, organised and analysed during an inductive and abductive, qualitative research approach. Key decisions of this reflexive process are discussed in the stages this research took. As explained in the introduction and background this research had access to primary data collected by CReATeS. This chapter explains how this data was used in the initial stages of the research design. It also details the relationship that the Digital R&D project activity had with further data collection and analysis I undertook. An overview of the data collected during this research is provided and a discussion of the development of the analysis and the challenges I met undergoing the analysis stages using CHAT.

This research set out to explore practices of cultural producing and engaging with culture in the creative industries. The implication behind this exploratory stage of the research was that practices of cultural producing and consuming were changing in relation to developments of digital technologies and new strategies that cultural organisations were testing out in the Digital R&D projects. Specifically, the research aims were refined to gain an understanding of the mesh of activities which involved people working in cultural organisations, the cultural product/experience and audiences. A focus on how activities may be transforming as a result of experiments with new forms of engaging audiences was developed. The literature review identified underdeveloped areas of research around audience engagement activity and the ways in which creative industries worked in practice. The literature review also evidenced a gap in understandings of how publishing related to other artforms in the creative industries. There was less literature on audience engagement activity in the visual arts and an especially evident notion that creative industries sectors may not be as distinctly separate as policy described. The research question became: how is audience engagement activity understood in and across visual arts and publishing in the post-digital age?

In relation to research aims are a choice of research paradigms. Four paradigms are defined according to the position of the researcher: as a subjectivist on the one hand or objectivist on the other; and the aims and objectives for conducting the research, such as whether for radical change to the current status quo or for an
understanding to make developments within existing frameworks (Saunders et al. 2016). The paradigms are created in a matrix according to the positioning of the researcher and his/her research aims along these two axes, illustrated by figure 10.

This research sits within the Interpretive paradigm. It takes a social constructionist epistemology which views the world as an interpretation and understanding is made relative to the context and experience of the phenomenon. The aspect of describing what is happening by “reporting how something is seen and reacted to and thereby meaningfully constructed within a given community or set of communities” (Crotty 1998, p.64) is aligned with the understanding I aimed for in this research. This research takes the ontological view that the world consists of practices which interconnect. This practice ontology was discussed previously in chapter 2 which provided an overview of practice-based studies research approaches. I take a subjective stance towards this research. The research approach was both inductive and abductive in terms of the reflexivity used in the process of data gathering, the use of CHAT and conceptual framing. In summary, the practice-based studies approach forms the ontology of this research, which in relation to the epistemology of social constructionism and my subjective positioning to the research informs the research strategy and methods selected for my research questions. The reasons for using the practice-based studies approach and in particular CHAT were described in the literature review. The literature review identified an understanding of activities in the creative industries would be a useful contribution, in addition to a focus on the mesh of activity involved in engaging audiences with cultural works.
The Research Strategy and Methodology

A second useful visual aid for explaining the underpinnings of this research is the research onion (figure 11). Having set out my research philosophy and approach to theory development (the outer layers of the research onion) this next section explains my methodological choices for the research design. Chapter two discussed the research approaches of practice-based studies, and especially the fact that there is no unified practice theory but rather a grouping of approaches which view the world as a series of connected practices.

![Research Onion Diagram](Image.png)

**Figure 11. The Research Onion (Saunders et al. 2016, p.124).**

Thus practice-based studies incorporate a practice ontology which has implications for the research strategy. I found that modifications were required to conventional understandings of the case study and ethnography research strategies for this research which takes the practice-based study approach. Practice-based studies, and studies which use CHAT, commonly adopt research strategies from ethnography and the case study. This research adopted a mixture of ethnography and case study research strategies related to the concept of activity settings. CHAT was used as a heuristic theoretical tool for analysis and understanding.

In practical terms, the Digital R&D Fund projects used as points of departure for this research were completed by May 2014. Therefore, a full ethnographic analysis of the activities as they happened was not possible. Also, it was unrealistic within the timescale of this PhD to conduct full ethnographic studies from three of the Digital R&D projects as starting points. The case study research strategy, which is labelled as a research method (Crotty 1998, p.5) but also as a methodology
(Creswell 2007) is well suited to the type of in-depth study this research aimed to conduct. The case study also allows for a detailed investigation of the phenomenon under focus within and in relation to its context (Saunders et al. 2016, p.184). This is particularly aligned with CHAT, which takes the smallest unit of activity as the activity system, incorporating the situated, mediated activity of a group and their larger community of activity.

As explained in chapter 2, the use of CHAT incorporates using a practice ontology. Consequently, I used the activity setting as the research strategy in place of the case study. The activity setting shares similarities with the case study in terms of a bounded unit or grouping of data which allows for in-depth investigation of a case. However, in contrast to the case study, the activity setting is understood as a group of activity systems which have similar objects of activity, and which interact with other activity systems sharing similar objects of activity, within a particular social context. The activity setting is not bounded in terms of the organisation, its building or site, or teams within it, but rather in terms of situated activity. The activity setting incorporates similar methods drawn from ethnography and case study research such as: observations, semi-structured interviews, document analysis and photographs.

The Digital R&D project events, 2012–2014 afforded an opportunity to make observations early in the research process. These experiences formed an early relationship between my research, the Digital R&D project activity and the CReATeS research data. These first-hand experiences also informed the direction I decided to take with the research development. CReATeS documents that were made available to me at this stage are detailed in tables 5–7 (Appendix) relating to each activity setting.

**Activity Setting Development**

Three Digital R&D projects were selected as starting points for the resulting activity settings of this research. The research design of activity settings enabled the

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19 There was a slight time overlap between the activities of CReATeS and the activities of this research. For example, the Digital R&D projects of Dundee Contemporary Arts and the National Galleries of Scotland (NGS) both started in August 2012, and the Digital R&D project of Publishing Scotland (PS) began in April 2013. The apps made for both NGS and PS had been launched in October 2013 and March 2014 respectively, and the DCA project ended around June 2013.
incorporation of existing CReATeS primary data which provided a longitudinal aspect to this research. As described in the introduction these three Digital R&D projects were: “Gaming the contemporary arts complex: enhancing experience through digital thinking” (project partners were DCA, Lucky Frame and Denki); Bookspotting (project partners were Publishing Scotland, Saraband, Spot Specific and Bibliographic Data Services): and ArtHunter (project partners were NGS and Kotikan). Reasons for this selection of three Digital R&D projects were twofold. Primarily, the rationale was developed by the literature review. Areas in the literature of publishing studies and organisation studies were lacking empirical research in the visual arts and the relationships between publishing, visual arts and the broader creative industries. The second reason included my previous experience and positioning as the researcher. I have experience as a practising artist, and my professional experience also included working at DCA between 2006 and 2011, which brought benefits of familiarity with the building and staff still working there. I had maintained good connections with lecturers in the University of Dundee and creatives in Dundee from my time working and studying there. My previous research interests explored the relationship between art galleries and publishers and the effects that digital technologies were having on their production techniques and strategies for marketing (Preston 2013). In this study I explored the different perspectives that artists’ publishing activity brought to the publishing industry and the implications for how publishing could be understood in different contexts. An interest in examining how we can understand audience engagement activity external to the publishing industry was carried forward to the research proposal, activities I observed in the Digital R&D projects, and subsequent activities that this research focussed on in the development of this thesis. These factors combined towards the selection of the Digital R&D projects involving: DCA, the NGS and Publishing Scotland.

Three Activity Settings: Data Collection Overview and Methods

The relationship between this research and the CReATeS data has been established in conjunction with a discussion of the reasons behind the development of the

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20 The practice-based studies approach also aligned well with my professional experience as an artist, which I felt brought a pre-existing understanding to the activity settings in the visual arts in particular.
21 Fleet Collective for example is a collective of creatives who collaborate where the opportunity arises, while independently cultivating their own practices.
research design and its philosophical underpinnings. The following overview of the activity settings, the data collection methods and ethical considerations concludes this chapter.

Prior to data collection, research ethics approval was obtained from the University of St Andrews. The CReATeS data collection was conducted under the University of Stirling ethics approval and as such the research participants for their research were attributable. Under my ethical approval the research participants I interviewed remained anonymous. To protect the anonymity of my interview participants, the CReATeS participants’ interview transcripts were also anonymised by including them in the coding procedure for my own interviews. My research participants were given a participant information sheet and consent form to complete. Each participant was also given the opportunity to designate at any time any information that should not be used within the research and the option to discontinue the interview if they so wished. The participant information was coded and securely held. All participants were over the age of eighteen years old.

Each activity setting developed from each of the Digital R&D projects and associated CReATeS data I selected as a starting point. The three Digital R&D projects essentially became sampling frameworks for invitations to interview. The activity settings evolved from the initial Digital R&D data and interview participants. My research activity expanded into the key areas where audience engagement activity could be observed and investigated further by conducting more interviews. These areas were mainly around events organised by cultural/sector organisations, the venues for events and the venues of cultural/sector organisations, mobile apps and other tools which incorporated existing and emergent technology.

The first activity setting of audience engagement in publishing and literature, began with a focus on the Bookspotting app that was developed in the Digital R&D project and subsequent audience engagement activity after the end of the project time, such as the Books from Scotland updated website and the Publishing Scotland stand at London Book Fair 2015. Wider activity of the London Book Fair and the panel discussions at Publishing for Digital Minds Conference became part of this

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22 Ethical approval, reference MN11051, was agreed by the University of St Andrews School of Management Ethics Committee on 15th April 2014. This was confirmed by letter to me dated 16th June 2014 from Dr Samuel Mansell, Convenor of the School Ethics Committee.
activity setting in addition to the events which happened in Scotland, namely the Dundee Literary Festival and the Twine Jam.

Activity setting two, audience engagement in national art collections began with the Digital R&D project ArtHunter and developed by way of interviews with other employees of the NGS who were not involved in ArtHunter, but who were involved in wider audience engagement related activity. Further data collected from the venues of NGS, in particular the resource rooms and subsequent mobile app projects Studio of Objects and Artcasting further developed the activity setting data around each theme of enquiry of experiments with technology and developments in audience engagement activity.

Finally, activity setting three, Audience Engagement in Contemporary Art began with the Digital R&D project “Gaming the Contemporary Art Complex” and developed the data collection around the venue building of the DCA and subsequent events after the Digital R&D project of the new Donations Box and Small Society Lab events.

The data collection process began with explorations around a broad research theme, which was an enquiry into potential emerging practices of cultural production and consumption in relation to the opportunities with digital technologies and engagement with cultural artefacts and experiences. Three key areas of thematic enquiry were devised, based on the reading conducted in the literature review and the events I had attended related to the Digital R&D projects, to begin the data collection. The thematic areas of enquiry were: collaborative experiments with digital technologies; experiments and developments with audience interactions in relation to the advancements of technology; and the extent of audience engagement interactions and audience participation in producing the cultural artefact/experience.

The three activity settings provided a useful way to compare and contrast audience engagement activity by cultural organisations who are primarily situated in visual arts and publishing. The activity in each setting showed a range of experiments with digital technology for engaging audiences, much of which was emergent. The Questions Framework (table 1, p.74) details the three main areas of thematic enquiry of focus, with the corresponding sub-research questions for each activity setting on the left-hand side. The main research question is: how is audience engagement activity understood in and across publishing and the visual arts in the post-digital age? Two sub-research questions: what happens in playful, experimental
projects exploring different uses for digital technologies? (ASQ1) and what are the implications of gamification and play on organising processes for audience engagement? (ASQ2) aimed to explore the theme of collaborative experiments with digital technologies. The sub-research question how do cultural organisations in visual arts and publishing mediate cultural works? (ASQ3) aimed to explore to what extent audience engagement activity may be transforming due to co-productive/co-creative activity. Two final sub-research questions: what are the implications of the hybrid uses of technology (different mediums and formats) for how we understand audience engagement activity? (ASQ4) and; what are the implications of co-productive/co-creative audience engagement activity amongst cultural organisations and their audiences for our understanding of gatekeeping and curating? (ASQ5) aimed to explore the extent of developments of participatory audiences and the implications for cultural organisations’ audience engagement activity and the potential extent of transformations to the cultural experience. Correspondingly, the right-hand side of the table details the semi-structured interview questions which were asked of the interview participants. The theoretically driven areas that these interview questions were focused on addressing are shown in the far-right column of the table. The questions posed to interviewees, and reflexively as a researcher during observational data collection, corresponded to the four theoretical areas of exploration (related to CHAT): Division of Labour; Materiality/Mediating Means; Object of Activity; and Approach and Process. The events which straddled across visual arts and publishing/literature and those which incorporated experimental tools and activities with technology were also selected for particular interest in the ability for observational data to be collected, further addressing the research questions relating to each thematic area of enquiry.

Overall the data includes: 26 semi-structured interviews (41 including the CReATeS interviews) of approximately 60mins in length; one group interview with seven participants, which lasted approximately 30 mins; photographs and fieldnotes made during observational periods of time at various events and locations; and collected tweets myself and others made whilst attending events. Tables 5–7 (Appendix) provide a detailed overview of the data collected within each activity setting. Table 8 (Appendix) shows the data which evidenced activities happening across all three activity settings and wider communities involved. As mentioned earlier, I began by conducting interviews with the central people involved in each of the Nesta Digital R&D projects in each of my three activity settings. Snowball
sampling then allowed for a broadening of the reach of data collection to people who had not necessarily been involved in the Nesta Digital R&D projects, but who had previous or existing working relationships with the initial interviewees and could speak to the interests of the research questions. These people for example were involved in other investment strands of the fund for the Digital R&D in the arts or were working with digital innovation within the areas of publishing and art.
### Questions Framework

Research Question: How is audience engagement activity understood in and across publishing and the visual arts in the post-digital age?

<table>
<thead>
<tr>
<th>Thematic enquiry in each activity setting</th>
<th>Objectives and Questions for each Activity Setting</th>
<th>Interview Questions Across Each Activity Setting</th>
<th>Corresponding Theoretical Area of Exploration</th>
</tr>
</thead>
</table>
| Experiments with digital technologies through collaborations | To explore collaborative activity across the fields of art, literature and technology:  
ASQ1: What happens in playful and experimental activities of projects, exploring different uses for digital technologies such as: apps, games and game design approaches, social media, websites, and coding techniques?  
ASQ2: What are the implications of the approaches of gamification and play on organising processes in an around audience engagement activities? | What do you do? What did you do? (in relation to the Digital R&D project), What did they do? Can you describe what you have been involved in most recently? (Investigates ASQ1 and ASQ3)  
Who do you work with, and how does what they do relate to what you do? (Investigates ASQ3, ASQ5)  
How did they get involved in the project? (ASQ3 and ASQ4)  
Did you have previous working relationships with …? How did those working relationships develop? (ASQ1, ASQ3)  
Did you work with others on the project and what did they do? What other responsibilities did you have? (ASQ1, ASQ3, ASQ5) | Division of Labour |
| Experiments and developments in audience interactions in relation to technology advancement | To understand how existing activity may have been adapted and developed due to co-production/co-creation with technology partners and audiences:  
ASQ3: How do cultural organisations in visual arts and publishing mediate cultural works? i.e. what approaches and processes have been undertaken for audience engagement and how were they organised? | What rooms were you in? Where was that displayed/used? How was that presented? (Investigates ASQ3, ASQ4) | Mediating Means (Material and Symbolic Tools) |
| The extent of developments around audience engagement and the extent of audience participation in producing the cultural product/experience | To understand how audiences may be contributing to the ways in which arts and cultural organisations mediate different formats of art and culture:  
ASQ4: What are the implications of hybrid uses of technology, i.e. different mediums and formats, that mediate cultural artefacts and experiences, for how we understand audience engagement activity?  
ASQ5: What are the implications of co-creative/co-productive activities of cultural/sector organisations and their audiences on our understanding of gatekeeping and curation? i.e. what tensions or disruptions might co-creative/co-productive audience engagement activity have for gatekeeping and curating activity of cultural/sector organisations? | What would be the most ideal project for you next? (Investigates ASQ3)  
How did their approaches differ? Can you describe the process? (Investigates ASQ3 and ASQ4)  
What were the most rewarding things for you? (Investigates ASQ2 and ASQ5)  
What were the challenges and limitations for you? (Investigates ASQ1, ASQ2 and ASQ5) | Object of Activity  
Approach and Process |

*Table 1 Questions Framework*
Data Collection and Analysis: Process & Methods

Initial and emergent findings in the data related to interactions between audiences and the cultural/sector organisations from the point of view of the organisation. The organisations were evaluating the value of their audience engagement activity. The processes at play in these activities were of increasing interest because of the experimental nature of the use of technology and the mix of games and software developers in the community of activity, which included audiences. During this phase of the research the concept of audience engagement activity emerged as something which I felt required expanding, in relation to the activities being observed which involved people working in the visual arts and games development. I decided to focus on the processes of audience engagement activity and what this meant as a practice, in the three activity settings. Initial findings showed an interplay between the physical spaces of engagement—be that browsing in a bookshop or wandering around a gallery, browsing around an app, or doing a combination of these things together, which prompted the relation of these findings to the concept of post-digital. The aspects of technology were embedded within the activities that were being witnessed and described. Even though audience engagement activity was the focus of the research, using CHAT enabled the research to say to what extent and in what ways technology was being used in the various ways across each of the activity settings as the tool in relation to the other aspects of the overall activity system. Thus, the research question became: How is audience engagement activity understood across the visual arts and publishing in the post-digital age?

The data analysis, which took a mixture of an abductive and inductive approach, was wide in scope in the early phases of the research. A list of themes in addition to the four theoretical themes (detailed earlier in the chapter) included, Division of Labour, Mediating Signs and Tools, Object of Activity, and Approaches and Process. I used a mixture of methods in the process of analysis, which included NVivo, tabulating data and gathering all the interview responses together under the similar questions posed. I adopted this mix of methods in response to the process of using CHAT for analysis and the associated challenges I found with it.

I generated a list of codes directly derived from the data using NVivo (Table 9, Appendix.). In addition to codes derived from the data, which included descriptive
coding, were theoretically led codes. A second method I used was tabulation of the data using the CHAT framework as a framing device. This table was formed of each element of the activity system: Object of Activity, Tools/Mediating means, Subject, Community, Division of Labour and Rules. Sections of interview data were linked to each of these aspects (illustrated by table 10, Appendix). However, the coding organised in this way felt too granular. In splitting the sections of data in this way it was difficult to effectively visualise the dynamics of the activity system. Thus, it was difficult to make meaningful inferences about the object-oriented activity or how activity systems interact. The third approach I took in the process of analysis was gathering the answers to each question posed in my interviews in each activity setting. This produced three documents organised into the headings of the first question I posed in the semi-structured interview and so on. Under each question heading were the answers provided by each participant to that question. This was when the data started to enable me to see patterns in the responses across all the participants in each activity setting. Most importantly this approach differed from the first two described in that I could gain an overview of the responses which were organised by the questions I had asked; rather than organised by the themes, which I had either derived from the data in the first approach or which were being derived by the CHAT framework in the second approach. I felt the triangulation of these approaches to the analysis developed a robust way of examining the data.

After conducting the third stage of analysis detailed here, key themes of importance emerged. I judged the importance of the themes in terms of the balance of the amount of references to the theme in the data and the extent to which they could help answer the research question and sub-questions posed to each activity setting. Figure 12 illustrates a nested overview of the principle areas of enquiry which combined to create an understanding of audience engagement activity in the post-digital age across the publishing and visual arts activity settings. The top level is the broadest, beginning with the three activity settings of cultural/sector organisations dedicating their work to showcasing and supporting the arts, literature and publishing in Scotland. Moving down to the second level, within the three activity settings, I focussed on two main areas of exploration, Technology and Process and Audience Engagement. Within these areas, through the process of analysis discussed, but especially using the third method, six key thematic codes
became apparent. Aesthetics pertained to the environment or the objects being used as mediating tools. Materiality pertained to the tools in an activity system and/or to the material environment of the activity. Gamification and play pertained to the process of games design being applied in areas of activity outside of games development, and playful exploration in a process or activity. Events related to interactions with audiences and the live aspect of audience interaction in addition to workshop activity. Finally, gatekeeping pertained to editorial, curatorial processes or the buying and selling of rights.

<table>
<thead>
<tr>
<th>Activity Settings of Cultural/Sector Organisations in Publishing and Visual Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology and Process, Audience Engagement (Areas of Exploration)</td>
</tr>
<tr>
<td>Aesthetics, Materiality, Gamification, Play, Events, Gatekeeping (Thematic Codes)</td>
</tr>
<tr>
<td>Understanding of Audience Engagement Activity in the Post-Digital Age across Publishing and Visual Arts</td>
</tr>
</tbody>
</table>

*Figure 12 Nested Levels of Enquiry [diagram] Preston, L. 2017.*

This chapter has discussed the methodology and the philosophical underpinnings of this research. The data collection and analysis methods have been outlined and the way in which the data was organised and viewed has also been explained in terms of CHAT and activity settings. As explained, the data I collected in each activity setting began with interviews I conducted with principal people involved in each Digital R&D project. The research data I collected is in part a legacy of the artefacts and knowledge that was produced by the experiences of the people involved in the Digital R&D projects and the research outcomes of the CReATeS team. However, my research investigated the activities that happened after the Digital R&D projects. Additionally, I gathered data which related to the audience engagement activity of people who were not part of the Digital R&D projects. Thus, this research expands on the Digital R&D project activity and associated CReATeS research in terms of looking beyond the timescale of the Digital R&D project activity, but also over an extended scope of activity by research participants involved in other events and projects. The empirical data I collected, which extended the CReATeS data on the Digital R&D projects, forms three activity settings presented in part II of this thesis.
Part II  Activity Settings
4 Activity Setting One

Audience Engagement in Publishing and Literature

Audience engagement activity in the setting of publishing and literature is presented in this first of three findings chapters. Each findings chapter introduces examples of collective audience engagement activity by members of cultural/sector organisations situated in publishing and visual arts. In terms of CHAT and activity system analysis discussed in part three of this thesis, the collective subject of focus is formed of people working in the cultural/sector organisations, within the broader community of people doing similar activity. The broader motivations (outcome) behind the object of collective activity (common goal or motive) and individual actions (goal-oriented) are presented where activity was encountered in certain situations and observable through semi-structured interviews, documents and images. Overall the three findings chapters form the three activity settings of Audience Engagement in: Publishing and Literature; National Art Collections (chapter 5); and Contemporary Art (chapter 6).

The cultural/sector organisations in this setting are Publishing Scotland, Saraband, Spot Specific, The London Book Fair 2015 (LBF), Literary Dundee and Electric Bookshop. Audience engagement activity presented in this setting includes the Bookspotting mobile application produced in the Digital R&D project, publisher stand activity and seminars at LBF, and seminars and workshops organised by Dundee Literary Festival and Electric Bookshop.

As explained in the methodology, each activity setting in this thesis is a grouping together of activity which shares a similar object of activity. Each sub-grouping of activity within an activity setting is identified as a framing of activity. Each activity setting began with the respective Digital R&D project with a focus on audience engagement activity. Subsequent interviews I carried out included those with participants of the Digital R&D projects activity and those with people in their networks. Observations were also made at events where live audience engagement activity was particularly evident. The events are understood as framings of activity, which held relationships with the Digital R&D project activity in terms of the participants involved. This chapter sets out the framings of activity that forms the
activity setting of audience engagement in publishing and literature, beginning with the Digital R&D project that produced Bookspotting.

Bookspotting

Bookspotting is a mobile phone application produced in a project funded by the Digital R&D Fund for the Arts in Scotland in April 2013. Bookspotting was launched in March 2014 (Squires 2014a). The project was also known as “Bookspotting: Books on the go” (Saraband 2013). It involved the partnership between Publishing Scotland, the publisher Saraband, the technology company Spot Specific and Bibliographic Data Services (BDS) (Squires 2014a). Bookspotting aims to encourage the discovery of Scottish titles and “find new audiences for Scottish writers” (Publishing Scotland 2014). The app employs GPS functions of the mobile device and game-like suggestion tools for personalised recommendations.

The organisations involved in the Digital R&D project were Publishing Scotland, Saraband and Spot Specific. Publishing Scotland is the “network, trade and development body for the book publishing industry in Scotland” (Publishing Scotland 2013d). It was formed from the Scottish Publishers Association (SPA), established in 1973 by ten publishers who wanted to collaborate to share information, make joint marketing activities and attend book fairs (Publishing Scotland 2013c). In 2007 Publishing Scotland was renamed and it broadened in scope to include organisations and individuals as well as publishers who were involved in all aspects of the publishing industry (Publishing Scotland 2013c). The charitable organisation is based in Edinburgh, with the main purpose to “support publishing practice”, which is achieved by assisting publishers with getting books to market, or offering training, for example in contract law or digital technologies (Interviewee 6, 2014).

Publishing Scotland also supports the industry by hosting a

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23 Publishing Scotland receives regular funding from Creative Scotland (Creative Scotland 2018). Publishing Scotland operates in a wider community of charitable organisations dedicated to various streams of support for literature, reading and literacy and writing, such as Scottish Book Trust (Scottish Book Trust 2019b). The charity Scottish Book Trust is also supported by Creative Scotland. One example of what Scottish Book Trust does is Bookbug, a free programme of reading and singing groups held across libraries in Scotland for babies, young children and their parents (Scottish Book Trust 2019a). Government support for the publishing industry (as part of the creative industries) includes: Culture, Europe and External Affairs Directorate, Creative Scotland, Scotland’s Creative Industries Partnership (SCIP) and the UK Government (who retain policy control at the UK level for “intellectual property, VAT, tax reliefs, employment and trade negotiations”). In 2016 a review was conducted by The House of Commons Scottish Affairs Committee into some of these reserved policy
stand at LBF and working with the Booksellers Association to organise the annual Scottish Book Trade Conference. Publishing Scotland’s vision is:

To become the lead body for the publishing sector in Scotland by helping to create an environment that allows publishers, writers, and content producers to innovate; and to play a part in fostering excellence in the production and delivery of creative content in the 21st Century (Publishing Scotland 2013d).

Amongst the aims of Publishing Scotland, those most relevant to this research are: to develop and promote the work of companies in the publishing sector to an international audience; to foster public understanding of the unique value of books and other published materials in the cultural and political life of the nation; and to promote the status of publishing in Scotland (Publishing Scotland 2015).

Saraband is a relatively small independent publisher based in Glasgow. The company is known for creatively testing out ideas with digital technologies (Interviewee 6, 2014). Saraband publishes the genres: Non-fiction—including memoir, history, arts and environment; Fiction, which includes their imprint Contraband; and Digital Publishing—which include (in addition to the latest Bookspotting app) the apps Pandacademy and Burns Night (Saraband 2016).

Spot Specific, a technology company based in Glasgow, specialised in producing systems which allowed data to be published in apps for Android or Apple devices (Interviewee 10, 2014). The technology company was named after the runtime engine Spot Specific, a system they developed which allows two outputs of data to Android and iOS from one input of data (Interviewee 10, 2014). Spot Specific Ltd dissolved as a company on 10th May 2016 (Companies House 2016). They had worked with various cultural organisations, such as Glasgow Museums and the Scottish Film Archives (Interviewee 10, 2014). The technologists at Spot Specific had backgrounds which included design, arts development and running documentary projects, with the reasons for getting into technology being:

It’s kind of like printing presses, you can develop things that people can use to publish stuff themselves […] we thought that was quite enabling […] so we’ve

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areas at UK level. Scotland’s art, culture and historic environment is invested in via the responsibility of the Culture, Europe and External Affairs Directorate (Publishing Scotland 2019).

24 Recent fame and recognition for Saraband and its imprint Contraband was garnered by the publication of Graeme Macrae Burnet’s, The Bloody Project, which was shortlisted for the Man Booker Prize for Fiction in 2016.
spent as much time developing technologies that we can take data and publish it in new and compelling ways but also give people control (Interviewee 10, 2014).

Digitisation and direct-to-reader marketing became challenges for Publishing Scotland to help address in the 21st Century (Publishing Scotland 2013c). Bookspotting was envisaged as one way to help make progress in this area. The project partners aimed to create new pathways for people to discover Scottish books. The proposition for this project was:

to mobilise Scottish literature by creating a book discovery tool—an app—that would link locations and settings and writers in Scotland using geolocation technology and promote Scottish-interest books in a lively way direct to users’ mobiles (CReATeS, 2013, Key Project Information).

The app was envisaged as a curated selection of book titles:

we’re hoping to curate and present to the public in the form of an app but allow them ways and pathways and signposts and guiding into different genres and types and authors and locations and books that they might not have heard of (CReATeS Interview, Interviewee 6, 2013).

Bookspotting aimed to tackle the problem of discoverability of book titles in the digital environment, in terms of browsing for something rather than having a title in mind to search for. As was described:

When you walk into a bookshop, you are bombarded by colours and visual cues, and book jackets [...] and the more facing out they are the better, but online we’re very, very poor at replicating that. (Interviewee 6 2015).

Publishing Scotland were the commissioning client in the partnership with Saraband and Spot Specific, who were both considered as the technology partners (Interviewee 6, 2014). The “silent partner” in this project was BDS, which supply libraries with metadata of publications (Squires 2014a, p.5). BDS supplied data to the Books from Scotland website, run by Publishing Scotland. Data tagged as “Scottish-interest” was used to draw together the books that would be featured on the Bookspotting App (Squires 2014a, p.5). The Burns Night App, produced in a previous partnership between Spot Specific and Saraband, was when Publishing Scotland saw, “how you could present Scottish material afresh and make it quite fun and make it quite ... whimsical” (CReATeS Interview, Interviewee 6, 2013).

Publishing Scotland were aware that Saraband, “was very innovative in terms of the kinds of apps and also in the way that [they] approached the material” (CReATeS Interview, Interviewee 6, 2013). In addition to previously working with Spot
Specific, Saraband also had working relationships with Publishing Scotland as a publisher member of the organisation. Saraband was paired with Faber & Faber in the Publishing Scotland company development project (CREATES Interview, Interviewee 6, 2013). Faber were making headway with digital innovations, creating “very beautiful apps” and Saraband were considered as “way ahead in terms of thinking digitally” so the pairing seemed fitting in terms of allowing Saraband to focus on “the digital innovation side of it” (CREATES Interview, Interviewee 6, 2013). Publishing Scotland took this into account along with the Burns Night App that Saraband had created when deciding to proceed with the application.

*The Development Process*

Bookspotting was developed from data derived from the Books from Scotland website (Interviewee 1, 2014). This data included 15000 Scottish-interest titles published by Publishing Scotland publisher members and non-member publishers. The Bookspotting production team included personnel from Saraband, who worked with an assistant editor on the content for the app, and Spot Specific. Spot Specific produced the aesthetic design of the app (figures 13–15). They also held the responsibility of publishing Bookspotting on Google and Apple platforms. This process involved Spot Specific compiling the app and preparing it for submission to Apple and Google, which involved optimising the content to the most suitable size (CREATES Interviewee 10, 2014). Google could authorise the submission in a matter of hours, whereas Apple could take up to three weeks to authorise the content and publish it on their platform (CREATES Interviewee 10, 2014). The requirements that had to be met were both in terms of content and the technology used. As Spot Specific said, “there’s no guarantee that they will ‘pass’ our technology” (CREATES Interviewee 10, 2014).

Editorial tasks were the responsibility of the assistant editor at Saraband. She was employed on a 6-month contract to work on functionality ideas for the app, and to transform information drawn from Books from Scotland into usable text for the purposes of the app (Interviewee 1, 2014). For example, the text was written for display on a computer screen for the website. It had to be adapted to fit the smaller mobile phone screen, to make it “a more digestible read” (Interviewee 1, 2014). The web editor for Books from Scotland was employed by Publishing Scotland, three days a week, at the time that Bookspotting was under production (Interviewee 16,
She was also involved in working on the production of Bookspotting, as it was envisaged that “Books from Scotland was going to be where you were directed to buy the books” (Interviewee 16, 2015). The web-editor’s involvement was mainly transferring data from the developer of Books from Scotland to Spot Specific for Bookspotting. Interviewee 16 (2015) explained how the content for the Bookspotting App was derived from the content of Books from Scotland website. She commented how:

we got a big data dump from our developer ... I think all the author bios came from Books from Scotland ... we wrote them, or we got them from the publishers. But then the blurbs actually belonged to BDS who supplied that to us.

Publishing Scotland member publishers were asked for their input in the process of selecting which titles to include in Bookspotting (CReATeS Interview, Interviewee 6, 2013). Non-member publishers also had the opportunity to engage with the process of putting their Scottish related titles on the app (CReATeS Interview, Interviewee 6, 2013). The process of curation involved narrowing down 15000 titles in order to create a selection of Scottish books, which would appeal to the general reader and to the serious reader (Interviewee 6, 2014). From the perspective of Publishing Scotland, it was key:

that we don’t just assemble all the usual suspects on the app and then put them on. It has to be something that a really serious Scottish book buyer would look at and say, ‘I’ve never heard of that book’, or ‘I had totally forgotten that that book came out in the 1960s’ […] if you’ve heard of every single book on the app we’re not doing our job properly (CReATeS Interview, Interviewee 6, 2013).

The free app Bookspotting was published on Google Play and Apple iTunes. The app design and publicity material have similarities to the book cover and marketing design for Trainspotting (CReATeS Fieldnotes, 15.1.2014). Bookspotting offers several options for discovering books, see figure 14 (overleaf). ‘Today’ shows books that were published on the day of use, in previous years. ‘Search’ allows the user to search the app using any search term: a book title or a location for example. ‘Who am I?’ offers for example different sliding scales between fun opposite spectrums to

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26 The book written by Irvine Welsh, was subsequently made into the well-known film of the same name. The film adaptation of Trainspotting has become synonymous with the gritty and darker sides of the touristic capital city of Scotland.
select a mood the user is in. Playful use of Scots language was also employed for the user to select either Bairn or Auld, Loyal or Sleekit, Canny or Glaikit for example. The production team explored gaining copyright permissions to use characters from Harry Potter and Trainspotting for this function. However, due to budget and time limitations for seeking copyright permissions characters older than seventy years were chosen (Interviewee 1 2014). ‘Categories’ contains a wide range of topics under which books are listed in the app: Adventure/Thriller, Antiques & Collectables, Art History, Children’s Fiction. ‘Book Index’ is the A–Z of the book titles in Bookspotting.

The Bookspotting App


Figure 16 Bookspotting Publicity Postcard (front) Publishing Scotland, 2014.

Figure 17 Bookspotting Publicity Postcard (back) Publishing Scotland, 2014.
Other functions ‘Near me’, and ‘Tours’ employ the GPS function of the mobile device. When selecting the ‘Near me’ function, the app offers the user the option of finding his/her location using GPS in the phone or by typing in a location. Titles are then suggested based on this location. Suggestions are made for example based on the book author hailing from a particular place, or a particular location used as a setting for a book narrative, or the factual content of a book title. Bookspotting also suggests other places in the vicinity of the user’s location with literary relevance. For example, near Perth the app informs the user of Scone Palace as a place to visit that was used as a setting in Macbeth. Book titles suggested in relation to Scone Palace are *Scottish Kings and Queens* and *Scotland’s Stone of Destiny*. ‘Tours’ is the second way the user’s geographical location is used by the app to suggest a literary tour that the user could take nearby. This section is designed to offer “A sense of place connecting books, authors and places through tours” (Bookspotting app 2016, Tours). Tours are offered in all areas over Scotland and include the tours: ‘Pub Crawl’, described as a tour to “follow in the footsteps of authors and characters by drinking and eating your way round Scotland in establishments with a literary feel” (Bookspotting app, 2016, Tours, Pub Crawl); and ‘Trainspotting Map’ where the user can “Follow Renton, Spud, Sickboy and Begbie as this tour brings you around Edinburgh locations mentioned in the book” (Bookspotting app, 2016, Tours, Trainspotting Map).

*Bookspotting in Use*

To garner understanding of how Bookspotting was received, the Mitchell Library Book Group agreed to test out the app and provide feedback on their experience. The Mitchell Library Book Group has thirteen to fourteen members who have met for eight years to discuss a broad range of texts from 19th century world literature to the classics (Fieldnotes, meeting notes 24.3.2015). I met the group during one of their regular meetings on Monday 30th May 2015. They were discussing *Hedda Gabler*, by Henrik Ibsen that evening and their discussions brought up interesting themes around translation and language. Afterwards I had the opportunity to see what the group thought of Bookspotting. Out of a group of eight, three members had their own smartphones to access the app. I had downloaded Bookspotting onto two iPod touches, which I brought with me and we had the use of my phone. Three people out
of the group were from Glasgow. Other members of the group came from England, Ireland, Italy, America and Germany.

The group explored the app for approximately 30 minutes. There was a lot of guess work and it seemed like people were having fun using it. The first topic of discussion was the use of Scots language for the ‘Who am I’ function of the app. The Scottish natives in the group had to explain to the others what certain words meant, for example Bairn and Couthie or Glaikit. There was some discussion over the meanings of these words. Foutering, for example, was one word debated over which the Scottish members of the group thought meant messing about or unable to make decisions. The Italian in the group did not understand the Scots words at all. She felt this excluded her from using that part of the app. Scots language and dialects were subsequently discussed in relation to the difficulties some members of the group were having with the Scots words (exemplified above) in the app. It was considered to be a generational issue. In an older person’s view, many of the Scots words used in the app were seldomly heard now, because more people in the area were coming or came from different places.

One participant said Bookspotting would be useful for someone who wanted to read more Scottish books. The location aspect of the app was also considered of value to discovering more about an area through literature. Discussion formed around what a Scottish book is. One person really liked the fact that it made them think about books in a different way. The links between geography and the books were well liked. However, in one person’s view an improvement would have been the option to add personal recommendations, such as creating a library, or a personal tour by adding books relating to places he had visited.

Discussion turned to the different responses that could be made to a book. One group member thought technology could be limiting in the way that people respond to books and to each other. The group discussed the use of mobiles in traditionally public spaces. An older member of the group commented that prior to mobile phones, public spaces were places to meet and chat face to face. He noticed that now people meet in public but have their mobile phones out in front of them. Another older member of the group thought that people who use apps do not read books. Despite the issues discussed, all members of the group found new books that they had not read or discovered before.
As mentioned earlier, Publishing Scotland perceived the key challenges for the publishing industry as digitisation and discoverability in the online environment at the time of the research interviews carried out by CReATeS in 2013. This concern remained in 2015. The problem area Bookspotting was aimed to tackle was the challenge of discovery of titles in the digital environment, although Publishing Scotland still felt after the Bookspotting app project finished, “we’re yet to crack discoverability” (Interviewee 6, 2014). Questions that remained for Publishing Scotland were: How do you tackle discoverability as a small company in the context of large publishers like Harper Collins and Penguin Random House who are “forging ahead with discoverability, and making sure that in the mass media […] their books are up first” (Interviewee 6, 2014) and; with the “perennial” challenge of replicating the browsing experience of the physical bookshop (especially at a time when the high street was seeing signs of decline), how do you best display books in the online environment? (Interviewee 6, 2014).

These questions highlight the motivations behind the development of Bookspotting. The difficulties with these challenges and how to meet them successfully were also highlighted by the evidence gathered from the app in use. As mentioned earlier in the development of Bookspotting, Books from Scotland was the source of data. This data had to be transformed for use on a smaller screen of the mobile. The selection of book titles for Bookspotting was also curated in the editing process that drew on the volume of titles in the Books from Scotland data. This relationship between the app and the website development is explained further in the following section.

*Bookspotting and Books from Scotland*

The Books from Scotland website was created in 2005 in response to Amazon which in the early 2000s was adding a surcharge of £1.99 for hard-to-source publications and had delivery times of between four and six weeks (Interviewee 6, 2014). Gardners fulfilled the direct sales orders made on the Books from Scotland website (Interviewee 16, 2015). By 2005 Amazon had updated their offer to include 24hr delivery in some cases and cheaper books. However, the Books from Scotland website was still considered a good source and collection of titles that came from Scotland or were about Scotland (Interviewee 6, 2014).
By 2014, after Bookspotting was launched, Publishing Scotland recognised that Books from Scotland required an update:

BooksfromScotland.com has been going for such a long time that it strayed away from its original, not really its original purpose, but certainly its original design, and I think that it was just looking a wee bit neglected and unloved (Interviewee 6, 2014).

A first meeting was held in February 2013 about the refresh for Books from Scotland. A second meeting took place in June 2013 (Interviewee 16, 2015). Publishing Scotland member feedback was important in the process of re-developing the website (Interviewee 16, 2015). The tender for the new Books from Scotland website was advertised by Publishing Scotland in June 2014 (Interviewee 6, 2014). In relation to the curated selection of books developed for Bookspotting, the new Books from Scotland website was re-envisioned in a shift away from a comprehensive catalogue of books to a featured set of curated titles (Interviewee 6, 2014). Bookswarm were contracted to develop the new website. The company was described as “a virtual business” with two employees, a “classic sort of kitchen table company” (Interviewee 2, 2014). They used the data that was cleaned up for use in the Bookspotting app to create a new database for the website (Interviewee 2, 2014).

The conceptual design behind the new Books from Scotland website was similar to that of a magazine publication. Creating content on an issue by issue/thematic basis was considered as an ideal, flexible way to make updates to the website (Interviewee 16 2015). The tag line for the website was changed to “Books from Scotland The Best of Scottish Books” (Publishing Scotland 2016a) from “Books from Scotland The Online Resource and Bookshop” (Publishing Scotland 2013b). The monthly newsletter was also increased to a fortnightly newsletter (Books from Scotland 2016).

The key difference between the original and the re-developed site was the new site did not sell books. Sales through Books from Scotland were proving unsustainable for Publishing Scotland due to the time and effort that went into fulfilling each order (Interviewee 16, 2015). Each book order was assigned to either Booksource or Gardners who would distribute the book accordingly. But in some

27 This web page was captured by the CReATeS team in 2013. This screenshot and other images CReATeS collected that this research referred to are detailed in tables 5-7 in the Appendix.
cases, if either distributor did not have the book available, the web editor would need to contact the publisher directly for the book to be sent to her at Publishing Scotland. This was especially time consuming as was described:

Sometimes three sales could take me half the morning. […] I’d print out our own delivery note, put that in, give them a bookmark, wrap it up, write on it, take it downstairs to be sent away (Interviewee 16, 2015).

By removing the sales function from the Books from Scotland website’ cost savings were made. Publishing Scotland could cancel subscription services for the original website, e.g. security services for personal payment details and subscriptions to distributors which were no longer required (Interviewee 16, 2015). One drawback however with the re-developed Books from Scotland website was that as a consequence the connection to Bookspotting was broken. Furthermore, the sales function had been removed. The ability for the Bookspotting user to buy a book he/she had discovered in the app was no longer available via the Books from Scotland website (Interviewee 16, 2015).

The production process of Bookspotting and its relationship with the Books from Scotland website has been shown. These activities illustrate Publishing Scotland’s motivations to improve discoverability of Scottish titles in the digital/online environment. Publishing Scotland also attends LBF on an annual basis to promote Scottish publishing activity and their publisher members in particular. This international event is a key date in the publishing industry calendar for the buying and selling of rights to publish cultural works via the mediums of print, digital, TV, film and audio (The London Book Fair 2018). The large-scale event, which hosts hundreds of stands of publishers and other companies linked to the publishing industry, is a prime example of audience engagement activity on a business to business scale. Of focus in this research, are the smaller scale conversations that were happening around the possibilities and challenges of digital technologies, and specifically publishers’ audience engagement activity. The next

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28 LBF is part of a wider community of activity of book fairs held across the world. Book fairs are organised for both cultural and commercial aims. They are a marketplace for the exchange of content for the book industry, but they also provide a certain status for a city and a nation as a reflection of cultural activity. The history of the Frankfurt Book Fair extends to its importance as a market town in the 16th century (Kobrak 2008). Bologna Childrens’ Book Fair was 50 years old in 2013 (Maughan 2013). LBF is considered to be a key rights sales event, second to Frankfurt Book Fair (Owen 2014a, p.110).
section details the Publishing Scotland stand activity amongst the broader international publishing industry. Additional examples of events illustrate the mesh of activities involved at LBF with a focus on audience engagement activity.

The London Book Fair, 14–16 April 2015

LBF is primarily a book publishing industry focussed annual event. In 2015 LBF changed venue to the larger Olympia Centre from the Earls Court location where it had been held since 2005 (Albanese 2015). I first attended LBF in 2012, prior to my second visit in 2015. In 2015, I observed more stands from the technology sector,
including games companies, taking up larger floor space compared to 2012. This represented an increase in the presence of the digital services for the publishing sector. ‘Tech Central Digital Hub’ and ‘Theatre @ Tech’ were not part of LBF in 2005. In 2015 these areas were expanded considerably in the larger Olympia venue (Albanese 2015). Publishing houses such as Penguin Random House and Harper Collins dominate the lower floor of the venue with large scale stands. People sit at tables doing rights deals and holding various other business meetings. There is a tangible buzz in the venue as booksellers, publishers, authors and publishing students, professors and lecturers as well as illustrators attend the fair. Figures 18–20 illustrate the social and tangible importance of the books presented and discussions happening at the stands.

The Publishing Scotland Stand

The Publishing Scotland stand provides space for Scottish publishers to showcase their printed publications and hold business meetings. Publishing Scotland gather together physical books that publishers want to have at the stand, organise the panels and furniture for the stand and delivery of them to LBF (Interviewee 16, 2015). In 2015, Publishing Scotland created an A4 sized printed catalogue, New Books from Scotland Spring 2015, which showcased publisher members’ books from Scotland (figures 21 and 22). Publishing Scotland previously produced printed catalogues to showcase publisher members’ books. The expense of making the printed catalogue went unwarranted for some years until Publishing Scotland decided to bring it back to help them achieve a larger international outreach (Interviewee 16, 2015). Inside, the catalogue explains the aims and vision of Publishing Scotland and showcases selected books from Publisher Scotland Members. A single page advert for the new Books from Scotland website and a list of Publishing Scotland Member details are included at the back. Figure 22 (overleaf) shows that Canongate Books opted to illustrate their publication, The Honours, as a three-dimensional object. This differed from the majority of books included in this catalogue which were illustrated using flat book cover images. The publisher’s book and author take front stage in this catalogue, with a paragraph of the content of the book and a paragraph about the author. Details of the publisher and contact names for people in the rights department are provided at the bottom of each page. Publishing Scotland state in this catalogue that they “act as the voice and network for publishing, to develop and promote the
work of companies, organisations and individuals in the industry, and to co-ordinate joint initiatives and partnership” (Publishing Scotland 2015, p.4). Publishing Scotland employees at their stand answered questions and helped people who had scheduled meetings. Often at LBF, visitors to the stand hoped to meet with the publishers without a pre-arranged meeting.29 Interviewee 16 (2015) commented that:

you get a lot of people coming by just trying to talk to the publishers and they don’t have time for that. If it’s not a pre-arranged meeting they usually don’t have time to speak to someone. It’s often printers or production people and they’re there for the rights so you just take messages, take cards, sometimes just tell them ‘oh they’re not on the stand at the moment’ and just tell them to come back later.

The following vignette illustrates an example of the kind of activity happening at the Publishing Scotland stand:

The stand was set up with small round metal Ikea outdoor tables and chairs.30 These tables had names of the publishers who had booked out the table to have their meetings at that day. As well as publisher tables, a couple of tables were reserved by Edinburgh Napier University and University of Stirling. About 13 or

29 Foreign buyers of rights to LBF are often known to visit “‘on the hoof’” without organising a stand and often with no prior contact (Owen 2014a, p.110).
30 Interviewee 16 informed me of the source of the furniture.
14 students including myself who were attending the fair popped by to have a chat. It was a relaxed and convivial atmosphere. I met some publishers who were working at the stand. Other tables booked out were Whittles Publishing, Floris Books and Saraband. I sat at the Saltire Society table for a while chatting with a fellow PhD student, when the organiser of Bloody Scotland came over to sit with us. We had some light-hearted chit chat about the fair and introductions etc. While we were sitting there the man from Whittles came over and talked to someone from Publishing Scotland about the paper that the catalogue is printed with and the glossy cover. The attention to the look and feel of the paper seemed important as the person from Publishing Scotland mentioned that it might not have been the kind of paper they had wanted initially. I notice that this kind of comment happened a few times over the course of the day (Fieldnotes Tuesday 14th April 2015).

This chapter has focussed on audience engagement activity of Publishing Scotland activity at LBF in addition to activity conducted with their partners in the Digital R&D project. The following section details audience engagement activity of cultural organisations working in the same community as Publishing Scotland.

Figure 23 Publishing Scotland Stand LBF [photograph] Preston, L., 16 April 2015.

Figure 24 Publishing Scotland Stand LBF [photograph] (Kemp 2015)
Publishing for Digital Minds

A precursor to LBF is the Publishing for Digital Minds Conference (PDMC). This relatively new day-long conference was in its seventh year in 2015. At PDMC, I observed the ways in which publishers conceived of what they were doing in relation to other cultural mediums such as film and television and the use of digital technologies. LBF and the PDMC take place in the London Book & Screen Week, which is described as “uncovering a literary London and uniting readers, writers, gamers and fans alike” (Olympia London 2016).

PDMC 2015 focussed on consumer engagement, future trends and content strategies (Fieldnotes, April 2015). Keynote speakers were the author and screenwriter David Nicholls, longlisted for the Booker Prize for his novel *Us*, Hannah Telfer from Penguin Random House and Rob Newlan from Facebook (The London Book Fair 2015). The day began with an introduction from Jacks Thomas, the director of London Book Fair, and the co-chairs John Mitchison (Founder of Unbound) and Sam Missingham (Head of Events at Harper Collins).31 Certain challenges and opportunities of digital technology, new kinds of relationships or crossovers between the mediums of TV, social networks, and book publishing, for both content and marketing techniques were especially evident. Hannah Telfer’s keynote presentation was titled “Curioser and Curioser: Publishing in a Digital Wonderland”. Tweets made during this panel that myself and others published emphasised key points that resonated with the audience, and the connections between twitter users that were being made in the process.32 The association of the digital era with *Alice in Wonderland* hit a chord for one twitter user who said, “enjoying going

31 Unbound is involving the readers in the creation of books from the beginning based on the model of a crowd funding platform. The author makes a pitch to the commissioning editors who decide whether to host the idea on the website. Once the idea for the book goes live on the site, a contract is made between Unbound and the author. Unbound crowdsource the funds for the project making pre-sales. Upon the publication date Unbound sell physical copies of the book to bookshops via Penguin Random House (Unbound 2015).

32 A tweet is a post on the social networking site Twitter, no more than 280 characters long. Different types of tweets include: the regular plain text tweet; image tweet (includes up to 4 images); video tweet (video posting of 30secs in duration max); media-rich link tweet (includes the link to rich media content e.g. video embedded on a webpage); location tweet (the option to add in your geographical location at the time of the tweet posting); @mention tweet (used for having a conversation with another twitter user - only made public to the users following you and the user mentioned); retweet (a re-posting of another person’s tweet; and finally the poll tweet (the facility to ask a question and get real time answers over a 24 hour period) (Nations 2018). A tweet was originally a maximum of 140 characters long, but this restraint was expanded to a maximum of 280 characters in November 2017 (Newton 2017).
down the rabbit hole w/@HTelfer1 #PDMC15 fabulous speaker” (Missinghame 2015). Key aims of Penguin’s activity that came across to me during Telfer’s talk were: “connecting books to people. author awareness. brand value, [and] consumer first” (Preston 2015c). Publishing Talk (2015b) reflected a key point for them in terms of the question of attracting audience in the digital environment, “Telfer: ‘How do we get noticed? Need to continually invest in expertise in how to reach audiences’ #lbf15 #pdmc15”. This tweet was retweeted illustrating the value/relevance attributed to this comment. Finally, a key point that resonated for Catton (2015) was around Penguin Random House using a branding strategy borrowed from television and the BBC: “@HTelfer1 PRH following BBC branding strategy for new website for consumers - all under Penguin brand #PDMC15”. These tweets highlighted the unknown and slightly bewildering effect that the digital era was having for some publishers in terms of how to connect with audiences best. They also showed the publisher Penguin Random House looking to what the BBC do in terms of their branding strategy for their new website. Tweets made by audience members highlight the points that resonated strongly enough to be shared with their wider community.

The panel session, “New Trends: Marketing; Tech; Social” was chaired by Sarah Lloyd from Macmillan, with Blathnaid Healy from Mashable, James Whatley from Ogilvey and Mather (an advertising company linking brands and consumers) and Manya Robert from the publisher Macmillan. The Twitter stream reflected key points for audience members around book discovery and connections with audiences. These included the browsing experience in the physical book shop, and word of mouth (digitally and person to person). Anderson (2015) tweeted, “#PDMC15 #LBF15 New Trends @BabyJuggler: Discovery: “browsing in a bookshop, word of mouth, following a series author”...not digital!” I also noted the point being made of the importance of book shop browsing as a key part of connecting with audiences, “Audiences craving a tangible connection. Browsing in a bookshop important as ever alongside the digital platforms we use. #PDMC15” (Preston 2015b). The problem of discovery for publishers resonated with Saraband (2015), who tweeted, “Attention poverty in crowded digital space is major stumbling block for publishers, says

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33 Hashtags group together topics and events into streams of conversations combined of tweets made by people using the hashtag. #PDMC15 was the hashtag defined by the conference organisers for Twitter users to add into their tweets.
@whatleydude #pdmc15”. Whatley talked about how fan bases were key to making connections with audiences, “#PDMC15 passionate fan bases are key to aim to for digital - James Whatley.” (Preston 2015a). Tweets also reflected positive opinions about publishing broadening out with the inclusion of panel speakers from outside of the industry at the book industry event. Haslum (2015) commented it was, “SO refreshing and necessary to have non-book industry experts doing panels, challenging and inspiring us from other sectors #PDMC15”. Barreto (2015) replied, tweeting “@zloom definitely. Publishing needs to be a lot less insular #PDMC15”.

A separate panel session in a different room, which took place at the same time as the panel just discussed, was “Branching Out: New Publishing Models” chaired by Alison Jones. The panel included Amia Lewis from Valobox - a pay as you go service offering access to content across different digital platforms (Publishing Scotland 2013a), Emma Barnes from Bibliocloud - a publishing management platform (Bibliocloud 2017), Ruth Jones from Ingram - an image publishing company (Ingram Image 2017) and Robin Cutler from Ingram Spark - a self-publishing platform service (Ingram Content Group 2017). There seemed to be fewer tweets made during this panel discussion, which could have been a reflection of the timing of it coinciding with the new trends panel. Key words were given which inspired the tweet by Publishing Talk (2015a), “ ‘New Publishing Models’ panel keywords: social capital, customising/personalising content, cloud-based software, automation, integration #pdmc15”. Another audience member tweeted, “Sadly don’t think I’m hearing anything ‘new’ at New Publishing Models...seems more about who's better at reacting to change. #PDMC15” (Robinson 2015).

A popular session was, “Unlocking the Potential for Mobile” with Simon Andrews from Addictive Content. MacLeod (2015) tweeted, “@samatlounge -- great turn-out for mobile session #PDMC15 Shameless plug for our Tues session on adapting for mobile http://www.smartbook-tisp.eu/event/adapting-publishing-mobbile-audience”. I noted at this session that “It’s not all about websites just now, social media, Instagram, and other apps taking a big share. E.g. Snapchat 45% aged 16-34. #PDMC15” (Preston 2015d). Questions were also raised around the use of mobile apps as the preferred search tool over Google: “Digital natives to mobile natives: are social / visual apps taking over google as the go-to online search tools #thehashtag #PDMC15” (Inspired Selection 2015).
The session, “Digital Sharing: Protecting Copyright Around the World” was on at the same time as the mobile focussed session. The key debate in this session, highlighted by the tweets, was the tension between the free sharing of other people’s content with others but the need to defend one's own content with copyright. One audience member tweeted that this situation was the, “Copyright paradox: most believe in protecting their own copyright, but also think it's okay to distribute others’ info freely. #PDMC15” (Osborne-Martin 2015).

PDMC highlighted a key topic for publishers was how to increase book discovery and attention for books in the digital environment. This corresponds to the Bookspotting app activity and the aims Publishing Scotland and their partners had in producing it. A second area of activity, which has the potential to disintermediate publishers, is increased self-publishing activity evidenced at LBF by the Author HQ area.

*The Author HQ*

Authors can publish and sell their books direct to readers by way of self-publishing, using the benefits of digital technologies and new self-publishing models. LBF responded to this by creating the Author HQ section in 2011, with dedicated events for authors. The intention behind Author HQ is to make provision of useful resources and advice to authors and self-publishers in a developing area of possibilities to get work to market (The London Book Fair 2016).

A panel at the Author HQ area illustrated self-publishing activity which used crowdfunding platforms. The panel included a film producer looking into new distribution models for music, book and theatre and a fantasy author/self-publishing consultant. Kickstarter, Indiegogo, Pubslush and Unbound were the crowdfunding platforms under discussion. Pubslush and Unbound were noted for being book publishing specific. Publishing related information was provided by the panellists. For example, Kickstarter had successfully crowd-funded 7000 publishing projects with an average fund of between $5000 and $10000. Publishing was mentioned as the third most unsuccessful category amongst others such as games, film and music for example. Digital marketing was noted as a key activity for successful crowdfunding due to the amount of effort required to build attention for the project and hence becoming successful at collecting the funds required. Further noted key
elements to a successful project were the pitch film, a good landing page on the crowdfinder platform website, perks and rewards offered to the funder upon donating money to the project and an existing fanbase. The value of the sharing process was emphasised by the panel speakers, who said, “the wealth is the network” and “crowdfunding is about empowerment and it removes the gatekeepers”. The panellists advised researching the crowdfunding process before going ahead, devising clear budgets, looking for similar projects, and selecting the platform that most successfully funded similar projects to the one being proposed. Indiegogo were noted for being open to a conversation after a project page had been drafted. The panellists advised making the most of that opportunity before launching the campaign. They also noted a common mistake with crowdfunding project pitches was not placing enough importance on the rewards offered to potential funders. They noted that most successful crowdfunded projects began with support from friends and family. It was noted by the panellists that a nominal figure of at least 30% support from friends, family and close networks would need to be achieved before someone could expect to successfully generate the funds required. The film producer on the panel informed the audience that this is the mythology of Indiegogo. Proof of concept is what crowdfunding was described as being all about. (Fieldnotes, Wednesday 15th April 2015).

This panel discussion illustrates the crowdfunding activity that authors, and non-traditional publishers can undertake to engage audiences directly with potential future products. This differs from traditional publishing in terms of the direct financial support that the audiences provide for the publishing project production. In terms of the audience engagement activity discussed so far in this chapter, this crowdfunding example shows a clear and direct connection between the audience member and the production process of the project not yet produced.

*The ‘Real’ New Publishing Seminar at London Book Fair 2015*

An additional and alternative view of contemporary publishing activity at LBF was provided by The ‘Real’ New Publishing seminar which aimed to explore print and digital from a creative perspective (Fieldnotes April 2015). The seminar was chaired by Katherine Reeve from Bath Spa University. The panel was formed of Miranda West from The Do Book Company (Do Book Co.), Vince Medeiros from The Church of London (TCO London) and Caroline Harris from Harris + Wilson.
West presented the activity of the publisher Do Book Co., based in Shoreditch, London. Do Book Co. connect the live talk event to the printed book and the audiences/readers/doers. The series of books, The Do Books are derived from the Do Lectures series. Each book in the series is authored by a Do Lecture speaker (The Do Book Company 2016a). The books are distributed by PG UK to Waterstones, Foyles, Tate and other specialist locations. An expectation for The Do Book Co. is to publish in print and digital. They also sell direct to the consumer. Their core readers are “digitally sophisticated” but appreciate well-crafted artisan products (Fieldnotes, April 2015). The Do Book Co. website illustrates well the connection made between the different mediums of publication made and organised by the company. Titles in the series include: *Do Disrupt. Change the Status Quo or Become It* by Mark Shayler (The Do Book Company 2019a); and *Do Story. How to tell your Story so the World Listens* by Bobette Buster (The Do Book Company 2019b). Books are organised into two main themes Smart Working and Slow Living. Sets of Do Books are also arranged into libraries for a particular kind of Do reader, such as The Start Up Library, The Skills Library or the Slow Living Library. Upon selecting a book on the website, the description and summary is provided with an author biography in addition to the video of the Do Lecture presented by the author of the book (The Do Book Company 2016b).

Medeiros introduced TCO London, a media company also based in Shoreditch, London. He spoke of magazine publishers, the role of books within the 21st century media company and the “tactile goodness in the age of the digital” (Fieldnotes April 2015). TCO London has three key brands, *Huck, Little White Lies* and *71A*. The *Huck* publication is produced in print, digital and video. *Little White Lies* is produced in print, digital, video, app and events. *71A* is a gallery space programmed with events and screenings. The events are “massive”, brands and audience come together in a non-mediated way, physically coming together. As disruption in journalism led to a search for new ways to work and do business, TCO London began to seek out advertisers to partner up with. Consequently, they worked with Google on *Think*, a quarterly magazine “that took tech back to Gutenberg”, in the words of Medeiros. TCO London did magnetic covers, heat activated pages and a personalised cover with the name of the recipient on it (Fieldnotes April 2015). For Google the publication served a marketing purpose, “to open a dialogue with CEO’s,
policy makers and world leaders” (TCO London 2016a). Microsoft was a second technology company client of TCO London. Microsoft wanted to produce a printed publication to engage with their employees (Fieldnotes April 2015). One Book was created by TCO London for Microsoft which:

wanted to offer a gift to 18k new employees joining the company when it acquired Nokia’s handset division to help personnel from the two companies integrate into a single team (TCO London 2016b).

The book was designed as a “keepsake for employees” which aimed to “celebrate the ways the two giants changed the world and what drives their teams to innovate” (TCO London 2016b). An animation was created, and posters were designed in seven languages. The book was delivered to 18 000 new employees of Microsoft (former Nokia handset employees) on day one of the union between the two companies (TCO London 2016b). In Medeiros’ opinion “books add value” and they do this through scarcity. Printed books produced in low volume generate a buzz because they are a limited edition, whereas digital formats are used in abundance.

Harris + Wilson “work in the space between authors and publishers to produce creative and imaginative content...a bit like a TV company” (Fieldnotes April 2015). They put together a sample, spreads and a proposal. Authors become involved in the making of the books. The series of books are the brand. Working between authors and publishers, they seek non-traditional outlets and new audiences. Harris makes the key point that they work across different formats for authors with editorial integrity and business diversification.

In the discussions at the end of the presentations, Medeiros makes the point that lead times for publishers are “crazy” and they need to become more agile. West from Do Books comments that they have “moved into a world of connections”. There is an emphasis on publishers as brands and “building an online community”. To sum up the conversation, Reeve makes the comment that publishers do not have time to be trained up in digital skills and that re-structuring the departments would be her advice. (Fieldnotes April 2015).

This chapter has presented the process of the Bookspotting app and the relationship it had with Books from Scotland website as the starting point of this activity setting. The cultural organisations involved in this process have been introduced, and the wider setting of activity that they are involved in has been
shown. Elements of LBF activity and the associated events and panel discussions all form activity systems that interact. The challenge of discoverability in the digital environment was observed as being tackled by the development and publication of Bookspotting. At LBF audience engagement activity was directly reflected on by attendees at PDMC and indirectly reflected by the crowdfunding activity and Publishing Scotland stand activity (as an example of all the stand activity happening at LBF). The strands of self-publishing activity, the mixture of print and digital publishing activity and the stand activity have also been presented. The concluding section of findings discusses audience engagement activity which involved a community formed of people who make games and art exhibitions in addition to publishers and writers of books.

Books and Literature, Games and Art

Moving beyond audience engagement activity of the cultural/sector organisations involved in the Digital R&D project, the last section of this chapter presents audience engagement activity in the wider cultural contexts of games and art in addition to literature.

Electric Bookshop is a collaboratively organised programme of events which “explore the future of the written word and the technologies of reading” (The Electric Bookshop 2016). The Electric Bookshop “launched in April 2010 [...] founded by three women embedded in the here and now of the literary world, but also have a keen eye on what’s coming next.” (Redman 2013, p.42). Programmed events were held in Inspace, at The School of Informatics, University of Edinburgh, between 2010 and 2014. The Inspace venue was considered of benefit to Electric bookshop events due to the non-literary context it was conventionally used for and associated with (Interviewee 34, 2015). Electric Bookshop events have since become nomadic with no permanent venue (Interviewee 34, 2015). Electric Bookshop events have explored activities which use, “conductive ink, paper technology, digital archiving in fashion, book art, storytelling and educational apps [...] eye tracking technology [and] interactive brainwave-responsive fiction” (The

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34 The School of Informatics in the University of Edinburgh is one of seven schools in the College of Science & Engineering. The main aim of Informatics is to “understand computation in both artificial and natural systems” (The University of Edinburgh 2016).
Electric Bookshop 2016). Conceptual topics events also explored included: “game development and narrative, artificial intelligence, online media marketplace and ethics [...] and writing and publishing in the digital age” (The Electric Bookshop 2016). Electric Bookshop is described as:

- a discussion and demonstration forum, a place to debate, a literary/technology think tank. But it’s also a place to socialise—somewhere to drink cocktails and chat while you grapple with the big challenges and opportunities facing publishing in the 21st Century (Redman 2013, p.40).

The organisers were particularly keen on trying to gather together people “who are doing interesting things in the field, people who are not constricted by borders” (Redman 2013, p.41).

**Dundee Literary Festival**

An Electric Bookshop event was programmed by the Dundee Literary Festival in 2015. This annual festival was held between the 21st and the 25th of October, 2015. Dundee Literary Festival “celebrates the joy of words” by gathering together authors and readers and books through the events in the programme (Hughes 2015). The festival events presented an ideal opportunity to hear from authors about their books. Of particular interest for this research was the Electric Bookshop event, Marginal Technologies: The Future of Books in a Digital Age. This panel discussion was chaired by Claire Stewart from Electric Bookshop. Other panel members were the author Reif Larsen and Dominic Smith, a philosopher from University of Dundee. Stewart introduced the topic of the conversation, to explore two aspects of the future of the book; optimism and pessimism. She wondered how they might moderate between those two positions in the discussion. The question in focus was: “What does the future hold for text, storytelling and for us as readers?” (Larsen & Smith 2015).

Larsen explained the big question in 2010 was: Are books dead? But by 2015 everyone realized this question was moot, as people continue to have intimate relationships with books and places that house them, such as libraries and bookshops. Larsen realized that for him, his work was about telling stories in all kinds of media. The question for him became: what form of delivery does the story take for readers? For Larsen the story demands a form and the form follows the content. He gave the example of the app that was built for his book *The Young and Prodigious T.S. Spivet.*
According to Larsen the first explorations into hypertext had initial problems with clunky functionality. Rethinking the digital page to meet the strength of the medium, Larsen described how he had been on a quest to make an “iPad app that mimics the bounded world of the novel” (Fieldnotes, 24 Oct 2015). In this app development Larsen described how he took the lessons from print to the app. He showed slides of the app as he described his aims for creating the book world in the app. He explained how he took the lessons he learnt from creating the content of this book for print over to the creation of the content for the app. The book contains a high proportion of visuals at the edges of the pages, which function as highly illustrated footnotes. These illustrations and notes are representations of the central character T.S. Spivet’s notebooks, integral to the story. Ending with his rules for the future of the book, Larsen explicated how iPad technology could lend advantages to content if that content led the form of technology best used to present the story. For this project the story and the form of the communication were central. Larsen described the story as jazz like. Larsen provided five take away points for the future of the book: “1. Content always trumps form, 2. Reading is an intimate act, 3. There is a stagnation in terms of devices, 4. Know what your medium does well and 5. Less is always more: the best stories only give you half the story” (Fieldnotes 24th October, 2015).

The relationship between the technology of the book and that of the computer was summarized by Smith, who also proposed alternative conceptualisations of books in the future. Smith explored the question: How do we avoid the book and talk about books and how they work in different contexts? Smith explored three ideas in his talk: 1. What the book should be, which he called closed book pessimism; 2. Open book optimism, which he related to the ideas of Vannevar Bush and; 3. Some suggestions relating to opening the concept of books. In this last part of his talk, Smith referenced the ideas of books as “puzzles” (quoting Georges Perec), as “jokes” (quoting Wittgenstein) and as “curated spaces” (quoting his fellow panelist Larsen).

Word into Art, Art on Words

Evidence of the sharing of the process of writing activity for an author and an arts curator was observed at Word into Art, Art on Words. This seminar took place as part of the same Dundee Literary Festival, discussed previously, on 22 October 2015.

35 Smith makes reference to the future dwelling article “As We May Think” by Vannevar Bush (1945).
Understanding practice and process, in terms of writing about art or viewing art to help a writer make words flow more easily, was under focus in this discussion. (Fieldnotes, 22 October 2015). The panel speakers were: Graham Domke, the curator and exhibitions director from DCA; Beth McDonough, a writer who took a residency placement at DCA. The panel chair was Professor Kirsty Gunn, the director of the MLitt Writing Practice and Study course at the University of Dundee (Fieldnotes 22 Oct 2015).

Gunn spoke of how she motivated her students to visit the gallery and use it as a learning source to inform writing practice. Domke spoke of his writing process as a chance to “flex his creative muscles”. Although some curators to his mind were frustrated artists, he considered the thirty or so catalogue essays he had written as his creative output. The exhibition catalogue for Domke, was a response to the art works and a translation of that in the medium of written text. He spoke of the approach to his work as: “forever looking for art, but also an avid reader, an inhaler of culture” (Fieldnotes 22 Oct 2015). McDonough spoke of her experience during her residency at DCA. She described her work as “poetic work informed by visual work” (Fieldnotes 22 Oct 2015). At DCA she aimed to break down some of the barriers of access she perceived were preventing people, who felt ok about going into the McManus Galleries, from feeling as comfortable to go into the DCA galleries. 36 For her the Echo event in the DCA galleries dissolved the boundaries between different people’s practices through the conversations and the presentations that were being made (Fieldnotes, 22 Oct 2015).

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36 The McManus Galleries hold collections of art and historical artefacts showing exhibitions of the history of Dundee (The McManus: Dundee’s Art Gallery and Museum 2009).
**Twine Jam: Electric Bookshop Event**

The participatory Twine Jam event/workshop was hosted by Electric Bookshop in November 2015 at the University of Edinburgh. Twine is an open source tool used to create interactive stories or games. So called Twines can be downloaded or read/played online via the internet browser. Video and audio clips can be embedded into the Twine story (Fieldnotes 28 Nov 2015). The ergodic storyline, one which has options for the reader to choose between at certain points along the way, is central to Twine. Similar historical ergodic storytelling activity in relation to Twine are the game-like competition books first published in the late 1980s.\(^{37}\)

![Figure 25 Screenshot of my story in development using Twine open source software](photograph) Preston, L., 28 November 2015.

Nine people attended the workshop, including me. Attendees included authors and games developers and an employee of the games company Rockstar Games in Edinburgh. We were offered the option to work in groups or individually.

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\(^{37}\) A key text focussing on ergodic literature, but which lies outside the scope of this thesis is *Cybertext, Perspectives on Ergodic Literature* (Aarseth 1997).

\(^{38}\) *Steel Eye and the Lost Magic* is an example of the competition book. The book had an author of the story, but the story was split into sections across the book. A game plan was devised which sent the reader to different sections depending on the decision they made. For example, “Among the scattered bones lies an antique golden amulet. You pick it up and discover an inscription on it that reads *Armour sounds thrice important*. [...] Ahead are two doors [...] If you choose to go through the red door, TURN to 68. If you choose to go through the blue door, TURN to 102.” (Kingsey 1987).
Most people worked individually apart from one group of two and a group that I worked with of three.

We began by working out the basic functions of the web-based software. As we did this we each used our own laptop to work out how to use it. This process resulted in each of us working on our own versions of a story that we were collectively building as we went. The process was somewhat like a discussion around what our story was going to be about. We discussed how it would begin and subsequent choices we would create at the end of each section. We collectively decided on the beginning of the story but individually wrote our version down in the software in our laptops. We developed the story in this way until we had something that resembled a short story length narrative. Figure 25 (previous page) shows what this looked like on screen. Throughout the day we learned from each other how to use Twine and how to write an interactive ergodic story.

The pace of learning how to use the Twine software to write an ergodic story was challenging. Although Twine was simple enough to operate, using it required a re-think of how to create the story. The ergodic storyline that the software offered and the fairly simultaneous process of learning the software while creating the story meant that as a writer, I had to act spontaneously.

What became interesting in the course of this workshop was my group set out to write one story collaboratively, but individually we felt compelled to have a go at using the software. Consequently, we discussed the essence of what the collective story line would be, but individually wrote it in our own words. This led to interesting differences between versions of the same narrative. The ergodic narrative contrasted greatly to the conventional narrative/content of a printed publication in digital or print. Twine offered an interactive, user-led experience of navigating through the story in several possible ways. Additionally, the software enabled a fast way of working with text, video, image and sound, all mediums that were possible to incorporate into the final publication. We also learned of the larger community of Twine users making publications and a Twine forum with discussion boards for questions and topics related to uses of the software.

The collective audience engagement activity which involved working with apps, the mix of digital and analogue technologies and Twine have been evidenced throughout this chapter. The findings conclude with comments interviewees made
towards the disruptive potential of these activities to existing publishing activity and the potential for relationships and partnerships between publishers and technology developers:

_The Bookseller_ had their hack day or hackathon or whatever they called it a couple of months ago. There are a lot of people being drawn into the orbit of the business which you know hopefully will upskill a lot of the people already in the business. But what’s interesting really is in terms of the slightly longer term is the impact of the digital natives. [...] I can remember very well the time before the internet and the world wide web. There are people who can’t even remember a time before Facebook. They’re the ones that are going to be the account execs and the publishing and the assistant editors and the editorial assistants and the publicity executives and the marketing executives and all the rest of it. [...] That’s the real shift as they start to work up into more senior positions. [...] However much of that is true you still need there to be an appetite for genuine innovative digital projects and that means if you mention appetite, they have to make money. The attitude to risk in most of the big publishing houses is a very risk averse year. (Interviewee 2, 2014)

This response described a sense of the publishing industry undergoing a period of transition in terms of digital skills and the “digital natives” who are working through the industry as time goes on. The idea of digital projects that publishers are enticed to work on must also be balanced against the financial risks to their business. Interviewee 2 (2014) thought that there had been a flurry of app activity in 2011 that seemed to have died down in 2014. He thought this could have been due to things going on in the wider context of publishing, such as the merger of Penguin and Random House causing a distraction from digital activities and the re-structuring of Hachette, which was “reconfiguring the children’s business” (Interviewee 2, 2014). He went on to comment that Harper Collins had appointed a new CEO who has “spent more of his time outside publishing than in it and he’s running one of the big three publishing companies” (Interviewee 2, 2014).

Finally, with regards to transitions in the publishing industry, Interviewee 30 (2015) spoke of his business, which is primarily focussed on partnerships with authors and retailers. His digital-only publishing company was “more open to partnerships with technologists than [in his opinion] almost any other publisher” (Interviewee 30, 2015). He added:

If there is a barrier it's that they just find change in the way that they work hard ... I think that’s my view, is that anything that involves changes to the workflow especially are just extremely problematic because people don’t want to change how they work (Interviewee 30, 2015).
Branding, the publisher and author brand was also noted as a central activity for the successful discovery of books in the digital environment. Branding was described as an activity for a publisher which “actually comes from what we publish, how we act, how we engage with people” (Interviewee 30, 2015). In relation to branding and the current transitions in publishing Interviewee 30 (2015) commented, that:

there’s no doubt that every publisher thinks far more about brands today. I mean almost every year that goes by, publishers think more about brands. Their own brand and author brands, and it is now central to this whole question of how readers discover books. Why people buy books.

Change in audience engagement activity described by the findings in this activity setting, includes the broader challenges of book discovery in the digital environment and alternative relationships with audiences, the book and means of production of cultural content. The chapter began with the Digital R&D project, Bookspotting. It showed the development process and the experiences of its use in addition to its relationship with the Books from Scotland website. This activity using digital tools was contrasted against the activity of Publishing Scotland at LBF and examples of publishing activity more broadly which were shown by the PDMC and panel events at LBF. The relationships between books, games and visual arts were also shown with the Dundee Literary Festival and Electric Bookshop events. The next two activity setting chapters provide findings of audience engagement activity situated further from the book industry, in the fields of national art collections and contemporary art.
5 Activity Setting Two

Audience Engagement in National Art Collections

This chapter presents audience engagement activity in the setting of national art collections. The NGS collections and galleries across Edinburgh are introduced. Findings of established and experimental audience engagement activities of NGS are presented. These include the uses of the resource rooms, and adaptations thereof, other areas of the gallery buildings, and mobile audience engagement. Audience engagement projects conducted by organisations who partnered with the NGS or used the collections conclude this findings chapter.

National Galleries Scotland: Venues and Collections

The NGS displays, stores and maintains the national art collection, of over 96000 works, across seven venues in Scotland (National Galleries of Scotland 2016f). Four main sites in the city of Edinburgh are devoted to exhibiting the collections to the public: The Scottish National Gallery, The Royal Scottish Academy, The Scottish National Gallery of Modern Art and The Scottish National Portrait Gallery. Works have also been loaned to the partner galleries Paxton House in Berwick-upon-Tweed and Duff House in Aberdeenshire (National Galleries of Scotland 2016e). The paintings, drawings and sculptures which are not displayed in the galleries are kept in the Granton Centre for Art; a purpose built, climate controlled storage space dedicated to their storage and safe keeping (National Galleries of Scotland 2016b).

In addition to storage and display of the works in exhibitions, the NGS undertakes research on the collections and has a publishing department. External research is enabled by public access to the collections via the libraries, archives and print rooms in The Scottish National Gallery, The Scottish National Gallery of Modern Art and the Scottish National Portrait Gallery (National Galleries of Scotland 2016c). The publishing department publishes titles for all the main gallery

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39 The National Collections of Scotland receive funds directly from the Scottish Government, which are then directed towards four areas of the collections in: galleries, museums, libraries and records. The NGS is the national body responsible for the receipt and implementation of funds for the galleries collections (The Scottish Government 2018).
sites of the NGS. The titles include exhibition catalogues, which accompany exhibitions, and “scholarly” publications which address “different aspects of art, art practice and art history” (National Galleries of Scotland 2015). The NGS was shortlisted for the first time for the Saltire Publisher of the Year 2016 award, (Publishing Scotland 2016b).

The Scottish National Gallery is situated in Edinburgh city centre. It displays artworks from the Renaissance to 1900 and the national collection of Scottish art c.1600–c.1900. The Scottish National Portrait Gallery, also in the centre of Edinburgh, houses the portraits of important people to the history of Scotland in addition to the national collection of photography. The Scottish National Gallery of Modern Art houses modern and contemporary art in addition to Dada and Surrealist collections. (National Galleries of Scotland 2016e). These collections are split over two buildings, Modern 1 and Modern 2, situated to the west of the city centre. Artist Rooms is the most recent collection acquired jointly by NGS and Tate in 2008. This collection of modern and contemporary art contains artworks of forty artists produced over the 20th century. It was acquired from the art collector Anthony D’Offay with the support of the National Heritage Memorial Fund, Art Fund and the governments of the UK (Tate 2008).  

Artist Rooms tours the UK by way of exhibitions in partner galleries, so called associates.  

NGS play a major role in the preservation, archiving, research and display of the national collections that they hold (National Galleries of Scotland 2016d). Amongst the priorities listed for the NGS between 2014 and 2018 are the two points: to “build new relationships with our audiences” and to “develop our partnership programme” (National Galleries of Scotland 2016d). This activity setting explores the developments in providing new pathways for visitors to engage with artworks in the national collections, and the dearth of information about them, between 2013 and 2015.

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40 Anthony D’Offay had three guiding principles for the Artist Rooms collections: Exhibitions should be monographs of individual artists to allow an in-depth view of the works; the works should be shared with galleries and museums across the UK and that the collection should be employed to instigate engagement and inspiration for art and creativity in young people across the UK (National Galleries of Scotland 2016a).
41 The Artist Rooms on tour is supported by the National Lottery through Arts Council England and Art Fund in England and through Creative Scotland in Scotland (Tate 2008).
National Galleries Scotland: Audience Engagement

Audience engagement is construed and motivated by the NGS in different ways. In 2014, the annual attendance to the NGS was 1.5 million (approx.). In 2018 NGS aimed to achieve annual audience numbers of 2 million (Leighton & Thomson 2014). The NGS corporate plan 2014–2018 prioritised quality, engagement and sustainability. For engagement NGS aimed to develop an “innovative and inspiring public programme” (Leighton & Thomson 2014, p.10). Related to this aim was the priority “to build new relationships with our audiences” (Leighton & Thomson 2014). The corporate plan summary provided more detail stating:

Our approach is not simply about a drive to maintain and where possible expand numbers; it is about changing the very nature of our relationship with the public as owners and users. This ranges from improving service levels, through digital and media engagement, to re-designing our public facing activities to meet new needs and demands (Leighton & Thomson 2014, p.10).

To this end a new audience development strategy was put in place in 2015. This strategy aimed to “upgrade and inspire existing services”, stating “we aim to engage with as wide and diverse an audience as possible, whether on-site, online or through our touring and outreach programmes” (Leighton & Thomson 2014, p.11). The Digital Engagement Strategy was devised to help the NGS to achieve these objectives. As was stated in 2014:

Our Digital Engagement Strategy aims to meet the public’s expectation to engage with NGS through a variety of digital platforms, including website, social media and mobile platforms. […] The vision for digital engagement is to bring our art, our historic sites and our public programme to audiences using digital technology to offer a wide range of meaningful, enjoyable and participatory experiences (Leighton & Thomson 2014, p.14).

Visitor figures to the NGS venues are captured by an intelligent counting camera. These figures are used in weekly and monthly reports (Interviewee 26, 2015). Visitor feedback is gathered via a comments book located in the gallery, social media, the website or direct emails sent to the galleries. An external partner organisation is also employed by the NGS to conduct surveys with visitors and produce detailed quarterly reports. These reports provide information on the demographics of the visitors coming to the galleries (Interviewee 26, 2015). Evaluation of the feedback gathered covers from what visitors think of the toilets to what they thought of an exhibition or an education workshop. Audience research in 2015 was evolving into
looking at how to gather feedback and visitor information in the digital environment. A relatively new role positioned under the Director of Public Engagement, alongside press and marketing roles within the communications department, was described by Interviewee 26 (2015) as:

inherently becoming more relevant within other departments [...] it’s kind of evolving, I don’t do a lot with public facing, I’m always kind of behind the scenes doing like internal research. [...] I work with Education, in the context of audiences and also evaluation, so once they’ve done [...] tours or workshops and things, we can gather up together and work out what it means.

Research on audiences was proving interesting for the NGS because as Interviewee 26 (2015) also commented, “our digital audiences look slightly different to our physical audiences”. In terms of audience research, “the way they kind of work out a digital audience can be a bit more tenuous” (Interviewee 26, 2015). People in the marketing department work with the Audience Research Co-ordinator to contact audience members agreeable to being contacted for marketing purposes (Interviewee 26, 2015). The Press and Marketing team include two Press Officers, Head of Press, two Marketing Officers and a Digital Marketing Officer. However, Interviewee 26, (2015) went on to say, “the department we’re in maybe doesn’t best reflect what we’re actually doing”. This infers that in practical terms sometimes employees’ activities in one department will cross over into another department. Thus, departments will not always strictly adhere to their descriptions. Other motivations for audience engagement include educational aspects of the gallery experience. The Education team organises talks, tours and workshops and provide outreach work. Sitting to the side of these roles is the most recent addition of a role dedicated to curating audience engagement, the Daskalopoulos Curator of Engagement. The activities of this role are described as:

working together with different departments who are involved in exhibition making to [...] look at the audience engagement, specifically around interpretation and understanding, that happens at the same time (Interviewee 33, 2015).

This role was motivated by the problem of different departments across NGS focussing on their particular exhibition. It was created to address the overall visitor

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42 This role is funded by the Greek collector Dimitris Daskalopoulos. Daskalopoulos funds several other roles in Tate and Whitechapel in London, aiming to address engagement, outreach and education for contemporary art (Interviewee 33, 2015).
experience across the gallery venues (Interviewee 33, 2015). The work involves collaborating on projects, often including digital components: for example, a digital resource around a collection in the Modern Galleries for young people that can be accessed online (Interviewee 33, 2015). Another problem area this role sought to explore at the time of interview was:

this idea of a digital space within the gallery space. So how can you use digital in order to be able to access other layers of interpretation that aren’t immediately available? (Interviewee 33, 2015).

The Daskalopoulos Curator of Engagement had an involvement in the activities of the Artcasting app. NGS developed Artcasting in partnership with Artist Rooms, and University of Edinburgh. Artcasting was considered as:

a really good example of something that we’re keen to work on a bit more, which is this idea of how can you use digital to get people to engage with art in a way that they don’t have the opportunity to in the gallery (Interviewee 33).

A pressure was felt “to get new audiences, to grow your audiences” but an acknowledgement was made that “actually the audience for art is decreasing […] for visual art it’s really scary, it’s the same with museums though” (Interviewee 33, 2015). Attending audiences are aging and strategies were being developed to attract audiences across all ages from five years old to fifty-five years old and over (Interviewee 33, 2015).

Tools of Audience Engagement

Long established audience engagement at NGS is mediated by printed leaflets and booklets. For example, a leaflet of the Floor Plan to the Scottish National Gallery helps the visitor to navigate the galleries. A forty-three page booklet, What’s On, details the artist and art works of a particular exhibition. Music concerts over the summer of 2016 in the NGS venues are advertised using an A5 two-sided leaflet. Lastly, a fifteen-page booklet details the courses and workshops available for adults to attend and participate in. These examples can be categorised as audience engagement that is one directional, aimed at every gallery visitor, by way of printed exhibition and event information simply made freely available to the visiting public. The gallery visitor may or may not take up the information in full, participate in workshops or attend advertised events.
A second category of printed publication is the long-established exhibition catalogue. Exhibition catalogues are produced by the NGS publishing department and sold via the NGS shop. For example, a catalogue produced for the Generation exhibition, provides an overview of the artists and artworks showcased.43 Printed materials with a slightly different motivation (again) are for example a marketing and promotional leaflet for the ArtHunter app and a leaflet advertising the NGS print on demand service. This service provides an opportunity for the gallery visitor to “take home a masterpiece” by ordering a Print on Demand print (framed or unframed) of an artwork held in the NGS collections. Large scale posters are also used to advertise current exhibitions on the exterior walls of NGS venues.

In addition to the examples of printed materials produced to inform and engage the gallery visitor, a mix of digital and physical/analogue elements are being combined in ways which are under review and development. Resource spaces and rooms have been created in certain parts of the Royal Scottish Academy and Scottish Gallery of Modern Art 1 (figures 26–28). Books and leaflets are laid out on tables in addition to the NGS website available to access via iPads positioned at fixed points on the table. Figures 29 to 32 show the update to the Resource Room in the Scottish National Gallery of Modern Art 1. Publications and printed materials from the NGS archive are also placed in a vitrine in this Resource Room (figure 29). Looking at the visitor feedback, Interviewee 33, (2015) saw, “really interestingly, what people wanted is drawing materials. They want to be able to sit and draw in the space”. Part of the response was to add some colour to the room, change the furniture and provide materials for drawing. The iPad offering in the room was also being reviewed at the time of the interview. This was felt to be “a really lazy digital offer”, as it simply provided access to the NGS website (Interviewee 33, 2015). Key differences between November 2015 and April 2015 were the addition of drawing materials and comfortable seating. The message, “Get involved #scotmodern” along with the symbols of the Facebook, Instagram and Twitter logos were also added in November 2015. The interactive aspect of this space is the main driver for the use of materials

43 Generation was an exhibition held at NGS and across different venues across Scotland, which aimed to celebrate 25 years of contemporary art from 1990 to 2015 (National Galleries of Scotland and Glasgow Life 2014).
to engage audiences in the information displayed around the exhibitions. As was described:

What we’re looking to do is think about ways that we can actually make the space more interactive and really act on what it is that people want to see (Interviewee 33, 2015).

In relation to materials offered for teenage audiences of the Artist Rooms exhibitions, NGS also found that, “16 to 18 year olds prefer print. They would rather have something in print than something online” (Interviewee 33, 2015). In contrast, a YouTube channel is also maintained by NGS. Videos of curators discussing exhibitions and interviews with artists are published on the NGS YouTube Channel. This channel was created in 2009 (National Galleries of Scotland 2018). Amongst the mix of established and new methods of engaging audiences there is an awareness, “that from the National you’re expecting a certain level of authority, but I think we need to be putting layers of other types of content and participation and conversation into that” (Interviewee 5, 2014).

Elsewhere, screens were positioned in key areas throughout the gallery buildings for audiences to interact with. Figures 33–36 show the touch screen units installed in the Scottish National Portrait Gallery and information screens installed in the Scottish National Gallery and Scottish National Gallery of Modern Art entrances.

The ways in which the gallery venues, the resource areas and a mixture of other printed and digital tools are used by the NGS in their audience engagement activity have been discussed. The tools, both established and under development, are offered for the gallery visitor to engage with and enhance understanding of the artworks and exhibitions. The latter part of this chapter presents project activity which sought to explore the use of mobile apps in developed ways for engaging audiences in the national collections at the NGS.
Figure 26 (above) Resource Area, Royal Scottish Academy [photograph] Preston, L., 2 October 2014.

Figure 27 Resource Area, Scottish National Gallery of Modern Art I [photograph] Preston, L., 7 April 2015.

Figure 28 (below) Resource Area, Scottish National Gallery of Modern Art I [photograph] Preston, L., 7 April 2015.
Figure 29 Resource Room, Scottish National Gallery of Modern Art 1

Figure 30 Resource Room, Scottish National Gallery of Modern Art 1

Figure 31 Resource Room, Scottish National Gallery of Modern Art 1

Figure 32 Resource Room, Scottish National Gallery of Modern Art 1
Figure 33 Touch Screens at the Scottish National Portrait Gallery [photograph] Preston, L., 2 October 2014.

Figure 34 Touch Screens and overhead screen in the Scottish National Gallery [photograph] Preston, L., 30 January 2015.

Figure 35 Touch Screens at the Scottish National Gallery [photograph] Preston, L., 30 January 2015.

Figure 36 Information screen at the Scottish National Gallery of Modern Art 1 [photograph] Preston, L., 7 April 2015.
Mobile Audience Engagement Activity

**ArtHunter**

ArtHunter is a mobile application that was developed for iPhone and Android devices between 2012 and 2013 in the NGS Digital R&D project. NGS worked with Kotikan, an app developer based in Edinburgh to develop the working prototype (Michael 2014, p.2). Previous to ArtHunter, in 2008, NGS experimented with an interactive app on the website to accompany the exhibition Faces and Places at the Scottish National Portrait Gallery (Interviewee 8, 2014). NGS also developed an iPhone app for the exhibition Impressionist Gardens in 2010 (National Galleries of Scotland 2010). Upon completion of ArtHunter, NGS worked with Kotikan on the production of the Titian and Diana app for iPhone and iPad, published in December 2013 (Kotikan 2014).

When the opportunity for funding arose, NGS Digital department approached the mobile app developer Kotikan (CREATES Interviewee 42, 2013). Kotikan grew from the founder in 2007 to twenty employees in 2013. Products Kotikan work on are called “mobile solutions”, i.e. apps or websites for mobile devices (CREATES Interviewee 42, 2013). Kotikan and NGS met at an ideas workshop organised by Nesta prior to the fund deadline and decided to work together on an application to the fund. NGS viewed working with Kotikan as a developing partnership (Interviewee 5, 2014). There was no pre-defined idea of what the project would be initially, but through the process of the application the idea began to crystallise of what they would apply to do (CREATES Interviewee 42, 2013). In a series of “brainstorming discussions” several ideas were produced “with the potential to join their [NGS] app portfolio” (Kotikan 2014). ArtHunter was devised to re-think the content of the galleries for the platform of mobile applications (CREATES Interviewee 42, 2013). Three key elements for the project were developed for the application: 1. The game element of the app, 2. Collecting artworks as the activity and 3. Aiming to encourage people to collect a small grouping of artworks. The application was co-written by NGS and Kotikan (CREATES Interviewee 42, 2013). ArtHunter was released for iPhone and Android mobile devices on 3 April 2013 (Kotikan 2014). Kotikan licensed part of the technology developed for the app to NGS who owned the app (CREATES Interviewee 42, 2013).
The curators of each gallery and the respective collections in the NGS worked independently of each other. However, for ArtHunter, a common agreement on which works to include was made. Curators were the project managers for each exhibition, which involved working with designers supported by digital and by marketing (Interviewee 5, 2014). Digital Content Curators were appointed to spend a portion of time with each gallery to work with curators to assist with the curation of the content specifically for digital formats (Interviewee 8, 2014).

The NGS Digital department, formerly called New Media Services, includes: The Head of Digital; a Digital Content Manager and a Digital Technical Officer. The Digital Technical Officer works with Digital Content Curators who work with the Curators of the different galleries. The ArtHunter project helped clarify some roles in this department which was described as being “in continual change” (Interviewee 5, 2014). Prior to the ArtHunter project the digital department was re-structured. Before the re-structure, the team would work on several projects in smaller teams. Although this was an efficient way of working:

it actually meant some projects were missing skills and direction, and then actually as a team we were kind of fragmented and lots of opportunities became missed (Interviewee 5, 2014).

For the ArtHunter project the team was re-organised into a technical project team and a content team. The content team reported to the Head of Digital, who had a background in English Literature and Film Studies and didn’t see herself as “a technologist or hard-core geek in any way” (Interviewee 5, 2014). ArtHunter was viewed as:

a forerunner of the way we wanted to work in the future, and what we tried to do was actually include the organisation in that and try and get the organisation involved in developing content, and in lots of ways that worked (Interviewee 5, 2014).

Working alongside the Head of Digital is the Digital and Technical Project Manager who undertakes “overall project planning for the Digital Team” (Interviewee 8, 2014). The Digital and Technical Project Manager had been involved in technical development for the website and apps, creating digital solutions or managing app content (Interviewee 8, 2014). The Digital and Technical Project Manager works alongside the Digital and Content Manager and a Digital and Technical Officer (Interviewee 8, 2014). Digital and Content Curators worked on the content aspects of
projects (Interviewee 8, 2014). Two Digital and Content Curators work with the curators on content for digital platforms, one working across the Modern Galleries and the Portrait Gallery and the other situated in the National Galleries (Interviewee 8, 2014). The ArtHunter project came at a time when NGS were working on integrating digital technologies and ways of working with digital across the entire organisation. ArtHunter was developed using a method of development called “sprint” cycles (CReATeS Interviewee 42, 2013). Prototype versions of the app at each stage were presented to the NGS digital team, who delivered feedback to the developer in time for the next sprint cycle.

ArtHunter was designed with a view to the Artist Rooms collection and the Generation exhibition, mentioned earlier (Taylor 2014, p.44). The idea was to draw together the artworks via the mobile app and encourage people to go between gallery locations. ArtHunter was billed as the “free mobile app for art lovers” (figures 37 and 38). It aimed to encourage existing visitors to make repeat visits and to encourage new visitors to the galleries (Nesta 2014).

Figure 37 ArtHunter Gallery Leaflet (front) National Galleries of Scotland, 2013.

Figure 38 ArtHunter Gallery Leaflet (back) National Galleries of Scotland, 2013.
In ArtHunter, artworks are grouped into collections: ‘Art from Scotland’, ‘Blue’, ‘In 3D’, ‘People’, ‘Places’, ‘All Works’ and ‘The Vault’. ‘Art from Scotland’ uses “a broad definition of ‘Scottish art’”. The collection is associated with Scotland by way of the nationality of the artist or “the subject matter of the artwork” (ArtHunter app). ‘Blue’ collects artworks associated with that period in art (such as Picasso’s Blue period) or simply with the colour blue. ‘In 3D’ are a collection of sculptural works and installations. ‘People’ is the portraits that the collections hold. ‘Places’ is a collection of artworks that explore a sense of place. ‘All works’ is the entire collection that the app has available for the user to look for. ‘The Vault’ is the collection of artworks that were available to find using the app but have since been removed from the current collecting list. Captured artworks the user may have already collected are stored here for the user of the app to find at any time. A ‘Galleries’ section in the app shows where the visitor can find other gallery venues of the NGS, but also other galleries located nearby. ArtHunter provides a map of these galleries, further information about them and the artworks available to capture there. A third section of the app is labelled ‘Trophies’ which is where the user sees their progress for collecting artworks, the number of collections completed, and the number of visits made to the galleries. This feature is the gamified aspect of the app. Once an artwork has been selected for the user to capture, and the code found next to that artwork in the gallery has been entered, information about the work and the artist is unlocked in the app. Details of the artwork revealed include the category (e.g. painting), accession number, location, and duration (the period of time a work can be viewed in a gallery). Dimensions of the work are also provided and image credit, identifying if the work is owned by the galleries or if it is on loan. Rich video, audio and photographic content is also provided. For example, a talk by the curator of the exhibition provides historical and background information for a chosen artist or artwork.

**ArtHunter in Use**

In October 2013 NGS attended a Nesta workshop in Edinburgh and shared information about how the app was being received. ArtHunter was downloaded 2393 times between April 2013 and September 2013. 754 downloads were attributed to Android devices and the remainder 1639 were attributable to iPhone devices. NGS spoke of how the app was making audiences look at the collections and navigate the
building in a different way than what would normally be the case (Fieldnotes Oct 2013 Summerhall Nesta event). Interviewee 5 (2014) commented that subsequent to the release of ArtHunter, NGS learned that gallery visitors were using the app at home subsequent to their visit:

we were quite surprised to see how much it [ArtHunter] was being used outwith gallery hours, so it was like either people are having a really rubbish experience or, do you know, and actually after talking to people, what we realised people were doing, they were collecting the content and collecting the artwork and then going home and watching the video

I used ArtHunter on two occasions on the 2 October 2014 and the 8 October 2014. I had an Android mobile phone with me and an iPad. The following vignette, based on observational fieldnotes, illustrates my experience of using ArtHunter in a visit to the Generation exhibition at the Royal Scottish Academy Building (RSA). I had problems using ArtHunter on my phone as I initially thought the Android version for the Generation exhibition was not available. I connected my iPad to the gallery Wi-Fi and accessed ArtHunter on that instead. This process was quite easy, especially sitting in the education area.

It feels very strange wandering around with my iPad in my hand, and also a bit unnecessary to be adding the artworks to the app. I feel strongly that it distracts from my experiences of the artwork, because I need to pay attention to two sources of information or three if you include the artwork itself. So, I’m looking at the artwork, then I’m reading the panel that someone has written for the artwork, and then I’m looking at my iPad screen to see what that will tell me once I’ve put in the code. I get the feeling that the invigilators are reluctant to speak to me. I feel uneasy using my iPad in the gallery, but they don’t tell me to put it away. The academy building has a contemporary feel. The gallery walls are all white and there are no carpets.

After leaving the RSA and Scottish National Gallery buildings I walked over to the National Portrait Gallery.

This gallery is really impressive. The building has been refurbished sensitively to the history of the building and the architecture. The Generation exhibition is also in this building. There’s an overwhelming number of exhibitions on in both venues, and that’s without going to the Modern One and Modern Two locations more to the outside of the centre. Something that perhaps the ArtHunter app can help the visitor with is in the selection of what to go and see. Intriguingly, the
handful of people I spoke to working as gallery attendants haven’t really used the ArtHunter App. However, they seem to have a vague notion of what it is and how useful it would be. One employee said she had downloaded the podcasts that you can get once you add a code, which was interesting because I hadn’t seen that. The reason she hadn’t used the app was that she had a Blackberry phone, so she couldn’t have used it on her phone. She now has a new phone, but she still hasn’t downloaded the app. (Fieldnotes, 2 October 2014).

On my visit to the Scottish National Gallery a week later I observed people viewing artworks and navigating the spaces of the galleries. The following vignette adapted from fieldnotes demonstrate the volume of information to take in while making a visit to the Scottish National Gallery. During this visit I also realised that there is a version of ArtHunter available for Android. This highlights the potential weakness of using digital apps if information is somehow miscommunicated about where or how to download it.

I’m sitting in the National Gallery. Despite looking for signs about ArtHunter I can’t see any. It’s quite quiet (10.45 am on a Friday). I’ve seen a few people walking around with a phone. However, I don’t think that the ArtHunter app is being used by them. People are standing around chatting, viewing the artworks, sitting down, standing up, or wandering around. They pace quite slowly in a non-directional or purposeful direction towards anything in particular, read the panel, then look at the painting, move across to the next panel, look at the painting again for a few moments. Someone has been taking photos openly using a large camera with a long lens. No one seems to be bothered by this (11 am). It’s a busy moment with about ten people in the same room as me. Four people are standing to my right looking and taking the room in. I’m sitting on a red traditional looking leather chair arranged in a circular fashion with others. Another man walks by with a camera, taking pictures, both people had SLR cameras. Outside the weather is quite nice but cold. Most people so far seem to be tourists or people who are generally interested in seeing artworks. The invigilators are quiet, and move around from room to room, chatting with each other. The carpet is green and soft underfoot, adding to the relaxed and calm atmosphere. People seem to be strolling through. It’s still quiet, apart from a couple discussing artwork with each other. I’ve moved to Room 5. Southern Baroque. The room is shaped like a hexagon with a light ceiling cupola, glazed and painted cream. The walls are all red with fabric covering them. Each wall has about six paintings on it with big
gold frames. The paintings vary in size from large, to very large, to quite small. There are two antique sideboards with ornament and marble tops. Someone next to me answers her phone and has a conversation. I can hear the voice of the person on the other end, she starts to leave to go and find her. I’m surprised she answered her phone. I realise the conventions I have learned about being quiet and reverent in a gallery are not as widely assumed as I had thought. People look quite intently at things and some people just gaze or glance quickly at the work.

After these visits, it became clear that ArtHunter is one tool out of a host of other tools the audience member/gallery visitor can use to engage with artworks, the galleries and the wealth of information that relates to them.

Transformations to the gallery experience by increased mobile phone use was a finding in this activity setting and the final activity setting of contemporary art (chapter 6). The first transformation commented on was the presence of the mobile device. Interviewee 5 (2014) described the experience of bringing a mobile phone into a gallery, for her and the gallery attendant:

The first time we did an app I kind of did a bit of an experiment with it. What we had at that point, we still had the policy of no mobile phones, but it was relaxed for the exhibition that the app was for. I got my phone and started using the app in the exhibition and I got followed by one of the attendants all the way round it. He never stopped me doing it, but actually followed me, just in case I did something else with it.

This description of events happened circa 2012. The interviewee went on to describe how this example was an extreme one, but that:

when I took my phone out other people saw me doing it and then took their phone out. It was almost like, ok you can do it, but people weren’t, people were scared to be the first one (Interviewee 5, 2014)

In 2012, the NGS changed their policy on mobile phone use in the galleries to allow the use of ArtHunter. Interviewee 5 (2014) said, “I think it has changed people’s behaviour, not necessarily negatively. I don’t think it’s become the kind of horrific experience that people thought it might do”. She also commented on her observations of people using mobile phones in Tate Britain: “a lot of people were using their phones, but they weren’t using the app, they were using things like Wikipedia or the Tate website and things like that” (Interviewee 5, 2014). Concerns related to mobile phone and tablet use in the galleries related to copyright control over the artworks in the NGS collections. One example of the complexity of
copyright for NGS was that for images and content published online a fee was required, but content displayed on a designated screen within the gallery did not require copyright permissions (Interviewee 33, 2015).

A second type of mobile phone use in galleries is taking selfies, a phenomenon created by the mobile phone. Interviewee 5 (2014) spoke of her visit to the National Gallery in London. Curious to see how mobile phone use may have been changing how people view artworks, she commented that:

the only room that you could see any change in visitor behaviour was the Impressionist room in front of the Sunflowers. That was the only place that I saw some people not really looking at the art and just taking the photo. But all the other rooms people were taking photos, but they were looking at the art still, but it was purely Sunflowers that people were taking a selfie in front of and moving on (Interviewee 5, 2014).

The “spiritual” type of experience (Interviewee 5, 2014), was noted as the ideal aim for galleries and their exhibitions, but these aims were not practical in terms of the volume of visitors to key works of art. The interviewee’s experience above illustrates this challenge of balancing the quality of the experience of the artwork with the motivation to increase gallery visitor numbers.

ArtHunter Updates

A key difference with doing the ArtHunter app was with the kind of product/tool it was, compared to the exhibition or exhibition catalogue. In terms of the process of producing exhibitions and marketing for them Interviewee 5 said:

I think we have a tendency to always move on as an organisation, ok we’ve done the book, we’ve done the campaign, we’ve done this, we’ve done the exhibition, where it’s when you have created something like ArtHunter, you need to keep feeding it. You need to keep doing it. You need to keep updating it (Interviewee 5, 2014).

As with all apps that are released, updates need to be made to continue the likelihood of its use. This section shows the ways in which the app began to evolve subsequent to the funded period of the Nesta Digital R&D project.

ArtHunter was updated in 2014 for the Generation exhibition. For the updated app, galleries taking part in the nationwide series of Generation exhibitions were invited to be included in the Generation edition of ArtHunter. NGS aimed to connect galleries showing the satellite exhibitions which were part of Generation via their
inclusion in the ArtHunter app. NGS aimed to encourage visitors to visit the other galleries through finding out about them in the app (Interviewee 5, 2014).

After Generation ArtHunter was reverted back to the original design. Art galleries and collections were invited again to submit artworks they wanted to be included in this subsequent ArtHunter update. The University of Stirling archive and collections undertook this process. The collections at the University of Stirling could benefit from a wider awareness that being included on the updated ArtHunter app associated with the NGS would bring. Furthermore, budget limitations meant that pursuing digital developments as a small collection were limited (Interviewee 36, 2015). In these ways contributing to the ArtHunter app update was considered a worthwhile opportunity. NGS sent a template to the University of Stirling curator which requested the information required about the artwork for inclusion in ArtHunter. A sheet of considerations and fulfilment of certain criteria also had to be completed by the submitting institution before an artwork could be accepted and included in the app. Conditions had to be met during the three months in which the work would be included in the app. Selection criteria covered areas of accessibility, features of the content of the artwork and practicalities. In terms of accessibility NGS wanted to know if the artwork could be viewed by the public for free. They asked the submitting gallery to consider which features of the work made it suitable to the ArtHunter set and if there were aspects of the work that could be enhanced through the use of video or audio. Practically, NGS also wanted to check that the artwork would be in place for the duration of its inclusion in ArtHunter, that it wouldn’t be on loan and whether there was copyright on the artwork (NGS organisational document, ArtHunter submission criteria).

The developments of ArtHunter at this stage show how the app was beginning to generate virtual connections for the art gallery visitor to other artworks in other galleries across the country. Relationships between the NGS and other venues had already existed between curators, but this development of ArtHunter brings additional transparency to those relationships via the links that were being made in the app. The last section of this chapter presents two projects which explored further app development for audience engagement activity that were linked to the NGS collections.
NGS and the Studio of Objects

Studio of Objects was a project funded by the Nesta Digital R&D Fund England, and developed in collaboration by Hijack, a documentary film production company, Decapo, a media company, Touch Press and Kingston University. Touch Press at the time were known to be involved in arts related activities such as Digital Bristol: The art of the app. “Renowned documentary maker turned app maker Max Whitby” gave advice at an event for filmmakers who wanted to make the shift to “developing interactive experiences on mobiles and tablets” (BBC 2013). Kingston University were the research partners on the project, who provided the research knowledge on the Paolozzi Studio and objects within it. They also carried out research on the project as it developed. The project used the Paolozzi Studio, which is re-created for exhibition display in the Scottish National Gallery of Modern Art 2, as the basis for creating a virtual experience of the same studio (figure 39). The Studio of Objects project was conducted subsequent to the ArtHunter app project, funded by Nesta Digital R&D fund Scotland.

The Paolozzi Studio re-creation (figures 40–42) on display in the gallery is not accessible to the viewer. Railings prevent the gallery visitor from entering the

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44 Touch Press has since sold its educational portfolio to Storytoys and Amplifygames, which became Touch Press Inc. Amphio is the new name for Touch Press “as part of a new strategy refocussing its business on culture, tech and video” (Cowdrey 2016).
The idea for the Studio of Objects project was to take the physical studio and scan the room to create a three-dimensional image of the studio and the objects within it. These images could then be used to create an interactive app that the user could manipulate and investigate via the touch screen of an iPad.

The Studio of Objects team scanned the studio meticulously using a three-dimensional scanner borrowed from Leica. This scanner produced point clouds of the room and the objects within it, which could later be rendered to appear like the objects do in real life. There was some debate around how to get the rich imagery that the team had collected into an app designed to fit into the small space available for an iPad app. Decisions had to be made around whether to project the images collected onto a wall and create an installation rather than an app. Hijack felt that the quality of the images gathered were like the early days of cinema and film making. They felt the technology to capture the imagery was not advanced enough to achieve what they had set out to do (Interviewee 31, 2015). However, a prototype app was eventually designed and launched at a special event in London (figures 43–45).

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45 A point cloud was described as similar to the contours drawn on a map to depict three dimensions, using dots instead of lines. Archaeologists use a point cloud to “place a certain thing in a certain space” (Interviewee 31, 2015).
Figure 43 (above) Studio of Objects Launch Night at The British Academy, London [photograph] Preston, L., 17 July 2015.

Figure 44 (right) Studio of Objects Launch Night at The British Academy, London [photograph] Preston, L., 17 July 2015

Figure 45 (below) Studio of Objects Launch Night at The British Academy, London [photograph] Preston, L., 17 July 2015
The event was held in the British School of Arts building in London. On a summer evening invited guests gathered to see the app. Organisers wore specially printed t-shirts with the Studio of Objects logo on them (figure 43, previous page) and walked around with iPads demonstrating the app encouraging people to try it out. Two projectors also displayed animations of the app in action (figures 44–46). Alcohol and live music created a celebratory atmosphere, and the event was free of charge. Some introductory speeches were made about the project from the people involved. Someone on the Studio of Objects team knew Eduardo Paolozzi and had visited his chaotic studio. She felt especially emotional about the event and the fact that they had managed to celebrate and open-up more of the artist’s work to the public (Fieldnotes, July 2015).

The app allows the user to rotate the room in 360 degrees and zoom in and zoom out of the image. When the user sees an object of interest and clicks on it information about the object appears. This information tells the user what the significance of the object is and what links there may be to other artworks that Paolozzi made, which are on display elsewhere in the UK. For some objects video footage is displayed of an interview with the artist or an image of the time around when it was made.
This project shows how the iPad application can be used remotely by a viewer who has never seen the ‘real’ artist studio before. It provides an access point to works which belong to the national collections without having to physically visit the building where they are housed. In this sense, the Studio of Objects is a publication of the physical studio space and the objects within it.

The Artcasting Project

Artcasting is the final project in this activity setting. Artcasting evidences a different approach to producing an app for the purposes of engaging audiences in the Artist Rooms collection at the NGS. As discussed earlier, ArtHunter aimed to encourage the gallery visitor to collect artworks in the app that they have viewed in the galleries; whereas Artcasting prompts the viewer in the gallery to send out or ‘cast’ an artwork to a place that they associate with that artwork. When another person with the Artcasting app is near to that place, the app alerts the user to the cast artwork which can then be encountered through the Artcasting app. In this way, the Artcasting app uses the artwork as a trigger for another connection or encounter for another person in another place.

Artcasting was developed between 2015 and 2016 from the Artist Rooms research partnership. The University of Edinburgh worked with Edinburgh College of Art (part of the University of Edinburgh) and the NGS to investigate how the touring Artist Rooms collections could gather a better quality of audience evaluation. The project team included two researchers from the University of Edinburgh, researchers from the University of Newcastle and the project partners NGS and Tate (Interviewee 35, 2016). The team was aware of the ArtHunter app, which helped inform the project. They acknowledged that without ArtHunter and the legacy of the change to the mobile phone policy in the galleries it created, the Artcasting project would have been more difficult to do. However, Artcasting had no explicit links to ArtHunter.

Artcasting was designed and developed by the University of Edinburgh and a software developer at the Edinburgh College of Art. Artcasting is available to download on iPhone or iPad but not on Android devices. As the app was a prototype for a research project there were testing days open to the public in late 2015 and early 2016. Certain Artist Rooms exhibitions were chosen: The Lichtenstein
exhibition and Robert Mapplethorpe. Research was also undertaken at the Bowes Museum in Newcastle. For copyright reasons, when the app is downloaded in an external location to that of the artworks, the images of the artworks that can be cast appear blurred. Once in the venue where the artworks are located, the blurred images become clear. When the visitor selects an artwork that they would like to respond to, the app prompts the user to send the artwork to a place and a time. The user can record why they wanted to send it to that place. Then the connection is made between the artwork and that place. An example is a Mapplethorpe artwork which was sent to the EU parliament by a visitor because they wanted people who encounter it there to think about and allow for the differences between people.

The ideas associated with casting a net, casting to produce a sculpture and broadcasting were discussed with Interviewee 35 (2016). The main premise of Artcasting was that the artwork be envisaged outside of the gallery space and positioned in an entirely new context. The concept of casting an artwork was contrasted with the casting of a fishing line by Interviewee 35 (2016). The notion of what might be caught as a result of this casting activity was associated with the aims of the Artcasting app. Ultimately, Artcasting aimed to achieve three things: to create a platform that could be developed upon (the app itself); to explore the theoretical implications of mobile devices and evaluation for galleries; and to explore the possibilities for evaluation for Artist Rooms (Interviewee 35, 2016).

This findings chapter has presented audience engagement activity by people working in the context of national arts collections. Factors relating to the transitional and disruptive activities of mobile audience engagement in the galleries were shown. Existing publications and printed materials were shown in use in conjunction with mobile apps for audience engagement. The final activity setting (chapter 6) develops further findings of audience engagement activity in the context of contemporary arts.
6 Activity Setting Three

Audience Engagement in Contemporary Art

The final findings chapter presents audience engagement activity in the activity setting of contemporary arts. The DCA and its venue is introduced. Details of the material, architectural space of the DCA building as a tool, resource and context, for audience engagement activity and the associated cultural experience are provided. Printed publications and leaflets used for audience engagement alongside playful uses of digital technology developed in the DCA Digital R&D project are presented. The Minimalist Games Jam and Small Society Lab events, which have links to the Digital R&D project, conclude the findings presented in this chapter.

DCA and the Building

DCA est. 1996 is situated in an award-winning building located in the cultural quarter of Dundee. The University of Dundee, Duncan of Jordanstone College of Art and Design (DJCAD) and the University of Abertay are in close proximity to the DCA.

DCA:

promotes the development and exhibition of contemporary art and culture through providing opportunities for artists to create, and for audiences to engage with an active, varied and high-quality cultural life for the people of Dundee, Scotland and beyond (Dundee Contemporary Arts 2015c).

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46 The DCA is a company limited by guarantee with charitable status. (Fieldnotes, DCA Director Presentation at Creative Enlightenment, DCA 2014). DCA receives regular funding from Creative Scotland (Creative Scotland 2018). In 2013/14 DCA received 3% less funding from Creative Scotland, who provide a third of DCA’s total expenditure, and 1% less from Dundee City Council. This left 4% of DCA’s funds required for their budget sourced as earned income (Dundee Contemporary Arts 2014b).

47 The Rep Theatre and Dundee Science Centre are also in the immediate vicinity of DCA. The cultural community in Dundee includes: WASPS studios for artists; Fleet Collective, a studio with a collective of creative practitioners who work individually and collectively depending on the project; Creative Dundee, an organisation that champions and supports individual practitioners in Dundee. The creative community of Dundee also includes the largest concentration of games companies in the UK, outside of London (Vallance 2014, p.17). Most recently Dundee’s city centre waterfront, in the close vicinity of DCA, underwent major development with £1 billion investment. The new V&A Dundee building is part of that development. V&A Dundee is the first design museum in Scotland which opened its doors in September 2018. This striking building has brought “internationally acclaimed” architecture to Dundee (V&A Dundee 2018).

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DCA’s vision is outlined as “a world-class centre for the development and exhibition of contemporary art and culture” with core values, “Bold, Open, Meaningful, Magical” (Dundee Contemporary Arts 2015c). A programme of national and international contemporary arts and culture is delivered by DCA. The centre has two large gallery spaces presenting contemporary artists’ exhibitions, two cinema screens for presenting both mainstream and arthouse films, a print gallery and print studio. Exhibitions of prints are displayed in the print gallery. Printmaking activity of artists working locally, as well as artists exhibiting in the galleries, are facilitated by the
print studio. In addition to the presentation and facilitation of art and culture in these ways, the team at DCA build in layers of support for audiences, such as educational workshops and gallery talks and tours.

Features of the DCA building provide subtle visual cues which mediate audience engagement activity (figures 47–50). The building is divided into private staff areas, areas for encouraging interaction from the public and others for contemplation, such as the galleries and information space. The main entrance is the first point of contact for the gallery visitor and DCA audiences. Accessed via a large wooden clad sliding door, the glass-fronted part of the DCA building houses the shop. In addition to crafts and jewellery, the shop stocks an array of stationery, art books, and magazines. The DCA visitor can also purchase exhibition catalogues by artists who have exhibited in the DCA galleries. Upon entering the building, the visitor is situated in an open space, with several choices as to where to go first. The galleries are the furthest away from the main entrance, reached via a high-ceilinged, long, mezzanine corridor. An information space is updated to reflect themes of each exhibition on the left-hand side of the corridor. Videos displayed in the information space show interviews with the artists in each exhibition, and books on the wall provide further reference for the specialist audience. Stairs at the front entrance lead to the café/bar area below, made apparent by the music and chatter that can be heard and the tables and chairs set out in the space at the bottom of the stairs. The café/bar, situated below the mezzanine corridor, has high sided glass partitions that are opened in the summer creating a social buzz at the heart of the building. The reception desk, situated to the left of the main entrance, makes use of the same counter top as the shop cashier area. Usually one or two box office staff work at the front desk. The visitor can purchase tickets here for the cinema and other events. At either side of the computer terminals, used to make bookings for events and the film screenings, there are pamphlets, booklets and promotional material. A range of free publications include DCA leaflets and booklets of programmes for the cinema, print studio, education workshops and galleries. *The Skinny*, a free art and culture news magazine, and other postcards and small leaflets from galleries nationwide also offer the audience a wealth of information of art and culture happening beyond Dundee and the DCA. The print studio, and Visual Research Centre (VRC) are situated next to and below the café/bar area respectively.
DCA: Digital Audience Engagement Activity

Three aims stated in the DCA’s annual review document, related to audience engagement are: to create clear pathways for audiences to engage with art and culture at DCA; to support and develop artists’ work and dissemination of that work; and to create and enable an ongoing hub in Dundee with international significance (DCA 2014b, p.3).

In a progressive rather than reactive response to digital technologies, DCA has explored the opportunities of developing technologies for their audience engagement offering (Interviewee 9, 2014). DCA were the first arts organisation in Scotland to publish an iPhone app. They “invested a lot in social media and developing ideas through those platforms” (Interviewee 9, 2014). The DCA iPhone App, launched in September 2010, was made available for download through the Apple App Store (Dundee Contemporary Arts 2010a). The app was freely accessible to iPhone users as a tool to “keep up-to-date with our current listings and what’s going on in the building” (Dundee Contemporary Arts 2010a). The app was effectively de-commissioned in July 2014, prior to the website update in August 2014, with the words “Goodbye to the DCA iPhone App” and the explanation “Over the last few months we’ve been working very hard to bring you an exciting new website and ticketing system.” (Dundee Contemporary Arts 2014a). DCA also experimented with Bluetooth technology in the building. DCA trialled making exhibition leaflets and other programme information accessible wirelessly using Bluetooth connectivity via the mobile phone (Interviewee 9, 2014). These examples evidence the experiments DCA undertook with technologies to find new and interesting ways to engage their audiences.

However, Interviewee 9 (2014) commented on activity he observed of gallery audiences taking selfies on the mobile phone. Echoing a comment made by Interviewee 5 in the activity setting of national art collections, he said:

I went to MOMA [Museum of Modern Art] in New York a few years ago and I was really, really shocked by how many people were mediating that experience as they were there. So, everybody was just photographing the works. They weren’t actually looking at them at all. I mean they were photographing themselves with the works. So, it was all about evidencing their experience, so they didn’t have any interest in the works themselves intrinsically. What they
were interested in was proving that they’d actually experienced the works (Interviewee 9, 2014).

Interviewee 11 (2015) also mentioned her observations of audience members taking selfies at the Rijks Museum in Amsterdam. This museum had recently opened up its collection online as a visitor resource. She spoke of being:

struck by the number of people still taking kind of selfies or taking photos of stuff when they can download really hi-res images and do whatever the heck they like with them afterwards (Interviewee 11, 2015).

These comments reflect the unanticipated activities that audiences will undertake while engaging with artworks using a mobile phone. Beyond exploring tools for how audiences could use existing technologies, such as the iPhone, Bluetooth and social media platforms, DCA began to organise Code Club workshops in 2014. Participants of a Code Club workshop learn how to write code using software to produce computer programmes. Code Club is a registered charity working in partnership with the Raspberry Pi foundation to support a network of Code Clubs across the UK (Code Club 2016). Tapping into the Code Club network, DCA became a host venue for young people to learn coding. DCA aimed to help young people to develop skills with digital technology beyond the use of software, for example “beyond image manipulation with Photoshop”, towards writing code or developing ideas for software (Interviewee 37, 2015). DCA’s Code Club was the first of its kind outside of a school environment (Interviewee 9, 2014). DCA Education and Learning team liaised with volunteers from Maker Space and Future Fossil, two games and technology related producers organised by graduates of Abertay University, to undertake the Code Clubs at DCA (Interviewee 37, 2015).

DCA’s education department has a central objective of developing public engagement. Public engagement was described as:

how we engage the public in being an audience but being somebody who can make something [...] we do that for film, moving image education, exhibitions, visual art education, with a specialism in print skills, digital skills with photography, animation, laser cutting, that kind of thing, and a huge variety of traditional print techniques, and time to experiment. We also bring into that design and craft through our shop, cos the shop is a shop, but it’s also a gallery. [...] so we work across all these disciplines and we also include digital technology and digital approaches, in aspects of that, hence Code Club, so public engagement can be interpretation, talks, events, workshops, learning opportunities (Interviewee 37, 2015).
Digital developments for tools that mediate audience engagement with DCA and their programme exemplified here are augmented with longer established tools, such as exhibition interpretation for the galleries. Written information in printed form is offered in the galleries in addition to the artist video and printed publications provided in the information space, mentioned earlier. Printed A5 postcards with the Twitter hashtag, #helloDCA encourage visitors to leave their written comments about an exhibition or their broader DCA experience on a notice board in the corridor outside the gallery spaces. Images of these postcards on the noticeboard are re-mediated by various Twitter users and DCA audience members posting them and additional comments to the Twitter hashtag conversation. Live engagement is considered equally important to DCA’s digital offerings: “we have live gallery assistants who interact with the public” (Interviewee 37, 2015). The audience seems happy with the range of ways in which to interact with a gallery exhibition and the themes or concepts behind it:

We show five exhibitions a year in the main gallery, we show five exhibitions in the print gallery, then we have artists’ projects running year-round, one could argue that a live app about visual art practice, artist and practice, might be a nice thing, no one’s asking for it at the moment […] our audiences seem to be happy where we are at the moment (Interviewee 37, 2015).

As Interviewee 37 alluded to on the previous page, DCA considers audiences in different ways. The audience member who is also at times a producer through the audience engagement activity that DCA undertakes, is key to how the DCA creates pathways for people to engage in their cultural programme. DCA also consider their audiences in three distinct groupings. Some people who visit the DCA galleries are thought to come with no previous knowledge about the artist or their work, but they visit on the basis of trust in DCA and the validation it has given to cultural works on display. A second group of people are thought to be a “very informed, engaged audience”. This group are considered to actively challenge the DCA to “fulfil their understanding about what contemporary art should be about”. The third audience are those who want to be entertained but were not made to feel patronised (Interviewee 9, CReATeS Interview, 2013).

In terms of the curation of the gallery programme and the ways in which DCA encourage visitors to the exhibitions, Interviewee 9 (CReATeS Interview, 2013) also commented that:
the [curatorial] complexion of each year will vary and there will be shows that are easier and shows that are harder for audiences, but we have to try and carry people with us through that. [...] We’re holding on to being driven by that curatorial principle of we will curate shows that we think are the right shows to exhibit. And then we will seek to build the responses and take those responses and where those responses challenge us we’ll try and respond to that as well. So having that ongoing conversation with our audiences is really, really important.

To entice DCA visitors into events associated with an exhibition, DCA send emails to visitors who have asked to be included on their mailing list. For example, an invite to attend an “evening of improvised music and performance” (DCA exhibitions email, 2016) associated with the Duncan Marquiss exhibition and a publication launch of new print editions the artist had been working on in the DCA print studio. A link to a Q&A with the artist featured on their website is provided offering more background information. The Q&A, ‘Duncan Marquiss on Copying Errors’ is one feature of the updated website that went live in August 2014, called DCA Stories. This article aimed to “find out more about the inspiration behind his work” (Dundee Contemporary Arts 2016a). It uses the artist’s own words to give the audience member some information behind the thinking of the work in the exhibition. At the bottom of the page are the opening times for the galleries and an invitation to the audience to, “Share your photos, videos and thoughts about Copying Errors through social media using #DuncanMarquiss—we love to hear from you” (Dundee Contemporary Arts 2016a).

DCA Stories is part of the DCA website akin to a blog. For example ‘Behind the Scenes at DCA with Adrian Murray’ with the Twitter hashtag #HelloDCA, reveals the backstory of the Exhibitions Manager and certain memorable stories behind exhibition installations (Dundee Contemporary Arts 2015a). DCA Stories is used to garner attendance in events but also participation in workshops. The post, “Games Developers Wanted for Drop in and Play at DCA!” calls for games developers to submit their games for a workshop session planned to coincide with “Small Wars & CD-ROMS: two exhibitions exploring the cultural impact of computer games” (Dundee Contemporary Arts 2016b). The benefits for visitors are highlighted, where they can:

drop-in and be among the first to try a range of brand new games before they’re widely available, speak to the game designers and let them know what they think after trying out their work (Dundee Contemporary Arts 2016b).
Drop in and Play enabled games developers to “gather feedback and see how audiences interact with their work, alongside benefiting from publicity for the event” (Dundee Contemporary Arts 2016b). It developed from Code Club, “to work on that family audience” (Interviewee 37, 2015). The open invitation to games developers allowed games of varying stages of “prototype readiness” to be encountered by audiences and was an opportunity for games companies to come and speak to the public (Interviewee 37, 2015). Getting “face-to-face contact” is key for DCA in establishing and growing their network of contacts for the education department. As Interviewee 37 (2015) said:

> what we tend to do if we’re interested in an area, we’ll host an event that’s relating to it, to get people in, so we can see them all in a oner. Or we seek out a particular conference or a particular network.  

The various ways in which DCA engage with their audiences using the building and its spaces, digital tools and printed materials have been discussed. Latterly, this chapter focusses on the DCA Digital R&D project and the process of development. The outcomes of the Artcade machine and the participatory workshops/events Minimalist Games Jam and the Small Society Lab conclude this findings chapter.

Gaming the Contemporary Arts Complex

In July 2012, DCA gained funding from the Nesta Digital R&D Fund Scotland for their Digital R&D project with the aim of “connecting thinkers with doers: methodologies for emergent collaboration” (Nesta Digital R&D Fund Scotland Application, 2012, Dundee Contemporary Arts). DCA collaborated with two games development companies Denki and Lucky Frame in this Digital R&D project. An exploration of how they could incorporate games design thinking into working processes at DCA for the benefit of improved audience engagement was key to this project (Greig & Beech 2014).

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48 Drop in and Play first took place in November 2012 and was included as part of the programme for NEoN Digital Arts Festival and Discovery Film Festival (Dundee Contemporary Arts 2016b). For the Education team the contacts made while working with the volunteers for the Code Club led to an established partnership for a separate project application to Time to Shine Digital, funded by Creative Scotland (Interviewee 37, 2015). Creative Dundee host Pecha Kucha nights for creatives living in Dundee who can present to a large audience to share their work/ideas. Creative Dundee is a network on the radar of DCA, as well as Maker Space and Fleet Collective (Interviewee 37, 2015).
Project Setup and Partners

The “Digital Toy Boutique” Denki, est. 2000, is the longest running games developer in Scotland (DCA, 2012, Digital R&D Fund Scotland Application). Denki’s activities are situated outside of the field of “pure game ‘entertainment’” (Interviewee 38, CReATeS Interview, 2012). The company regards itself as a “digital media” company which centres on the “publication of information” rather than a games developer (Interviewee 38, CReATeS Interview, 2012). Denki has developed over two hundred games for clients such as Dreamworks, Disney, Paramount, Universal Pictures and Cartoon Network: “People who expect you to deliver” (CReATeS, Workshop Audio 1, November 2013).

Lucky Frame, est. 2008, was a smaller company formed of three employees, (DCA, 2012, Digital R&D Fund Scotland Application). Lucky Frame aligned their activity with that of a creative studio rather than with that of a games studio (CReATeS, Workshop Audio 1, November 2013). A core area of project activity for Lucky Frame was exploring the interactive computer interface, e.g. how a Wii controller could be musical (Interviewee 14, 2015). Despite its small size, Lucky Frame garnered recognition and support from University of Edinburgh, NESTA, British Council, Creative Scotland and Channel 4 (DCA, 2012, Digital R&D Fund Scotland Application). Lucky Frame ceased making games in December 2014 (Seznec 2014).

Limitations of research and development projects in general were observed by DCA. For example, general assumptions were often made by some arts organisations about what technology could do prior to embarking on a project (Interviewee 27, 2015). As DCA stated in the project application for funding:

Arts organisations will often approach a technologist with a prescribed outcome aimed at solving a challenge they may have only partially defined (Nesta Digital R&D Fund Scotland Application, 2012, Dundee Contemporary Arts).

A similar understanding was shared by Lucky Frame, who were often approached by creative companies and organisations with a pre-envisaged idea, which was usually an app (Interviewees 14 and 39, CReATeS Interview, 2012). The perception was: “they’re not coming to us asking for our expertise on the development-side or the design-side, they just want it made” (Interviewees 14 and 39, CReATeS Interview, 2012). Additional approaches the company received from arts organisations often
had little understanding of the costings involved in making an app and its mode of
delivery (Interviewees 14 and 39, CReATeS Interview, 2012). Thus, a basis was
made in the DCA proposal for a different approach to their Digital R&D project.

Denki identified an opportunity during this project to test out the
methodology they apply to making digital innovations, to see if it could work in the
“real world” (Interviewee 38, CReATeS Interview, 2013). This methodology and
approach was described as a:

blend of lean start-up principles, customer development principles and the Denki
development process, which is itself an amalgamation of a whole bunch of bits
picked up from different industries throughout the years, from industries probably
as diverse as magazine publishing, through to automobile manufacturing, to
theatre, all sorts (Interviewee 38, CReATeS Interview, 2013).

Denki wanted to learn how audiences interact in the physical space of DCA, and how
DCA staff and the building interacted with audiences. Denki were especially
interested to explore how their approach could pick out the similarities between
virtual digitally created space and the physical environment, and how thinking more
digitally about interactions between the audience and the DCA building could help
tackle challenges that DCA identified. (Interviewee 38, CReATeS Interview, 2012).

The approaches of Lucky Frame and Denki had subtle differences. Lucky
Frame focussed on “encouraging creativity through interaction” (Interviewees 14 and
39, CReATeS Interview, 2012). Lucky Frame’s activity was described as
spontaneous, creating multiple possibilities for their part of the Digital R&D project
(Interviewee 38, CReATeS Interview, 2013). The founding members had
backgrounds in music, design and printmaking. They formed Lucky Frame through
their common interest in games (Interviewees 14 and 39, CReATeS Interview,
2012). An artistic approach along with solving problems was central to Lucky
Frame’s interests in projects with arts organisations. A Lucky Frame member
acknowledged, “my personal excitement in what I make stems from interaction,
interface and audience” (Sharratt 2013b). Lucky Frame aimed to introduce games
and gaming as a creative medium to employ as a tool to engage with audiences in
new ways.

I think there’s still a lot of negativity and misconceptions about games. So I’m
looking forward to introducing people to—even if they’re aware of games—[…] the
aim is to kind of unlock people’s understanding of games as something that
can be used as a creative medium (CReATeS Interview, Lucky Frame, 2012).
Denki on the other hand were viewed as systematic problem-solvers who “look at the problem and unpack the problem, set up a series of questions and take those questions on one at a time” (Interviewee 9, 2014).

The DCA Digital R&D project approach that the partners agreed to was for the technologists to spend time in the DCA in the same way as an artist in residence would. This approach was explained as:

Rather than commissioning a technology company to research and develop a piece of software to order we propose to embed technologists within the organisation through a series of residencies (About the Project, Nesta Digital R&D Fund Scotland Application, DCA, 2012).

The motive behind this approach was open investigation and a larger exploration of the scope of what could be achieved by the project by having the technologists embedded in the DCA organisation. (About the Project, Nesta Digital R&D Fund Scotland Application, DCA, 2012). DCA proposed to give the technologists “the freedom to tackle organisational challenges from their own unique perspective, working with staff to evolve a set of shared outcomes” (About the Project, Nesta Digital R&D Fund Scotland Application, DCA, 2012).

The DCA Digital R&D project approach held characteristics of gamification in terms of the technologist residencies in the organisation which aimed to tackle

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49 The artist residency model has been used historically for organisations to work with artists in ways which support their individual practice. A Lucky Frame technologist was artist in residence at Hannah Maclure Centre, a gallery situated in the University of Abertay in Dundee, which was one of the ways in which DCA became aware of Lucky Frame. Artists’ residencies originate c1900s. Certain “grassroots artists’ colonies” were established where artists gathered together to share and develop their creative work. So called “romantic patronage” was also offered to artists from wealthy benefactors in the form of a stay in secluded residences for artists to live and work (Open Method of Coordination (OMC) working group of EU member states experts on artists’ residencies. 2011, p.69). The value of artist residencies for the development of knowledge and understanding in areas outside of the arts has become increasingly acknowledged (TransArtists 2018). The value of the artists’ residencies model for exploration and idea generation with technology for arts organisations was shown with the Sync Geeks in Residence (Sharratt 2013a). CounterPULSE Artist Residency Commissioning Program exemplified the use of artists’ residencies for audience engagement (Brown & Ratzkin 2011).

50 A similar open-ended research and development project was ITEM which happened at a transitional time in contemporary art related to new media (Interviewee 9, 2014). This project involved MITES, a cultural organisation formed to assist artists with the technical support required for presenting digital works of art, so called new media at the time. MITES had requests to help shape the technical support required by artists rather than just to supply it. These requests contributed to the proposal for the ITEM project. Projects were funded in 2003 by Nesta and Arts Council England and in 2004 additional support was found via Arts Council North West. Pairings of artists and technologists worked collaboratively on research and development, which helped form new ways to present artworks which best suited the works. This was preferred to moulding the artwork to conform to existing technologies of presenting, e.g. television monitors or projectors etc (Gillman 2006).
certain challenges of the arts centre. Other games companies in Dundee applied their work to fields outside of games development. Interviewee 11 (2015) spoke of “a really clear [and] visible benefit of using gamification for health care”. For example, the Dundee based company Guerilla Tea developed an app for cancer research UK. Interviewee 11 (2015) explained the gamified aspect of this app: “as you’re flying through an asteroid field in this game you’re helping scientists uncover DNA data that’ll help map patterns for cancer”. Additionally, in the field of education Glitchspace, created by Dundee based Space Budgie, is a visual programme that helps young people learn how to code rather than learning to code through typing (Interviewee 11, 2015).

Project Activity/Process

Workshops became a catalyst for the technologists to work with DCA staff “to evolve a set of shared outcomes” (About the Project, Nesta Digital R&D Fund Scotland Application, DCA, 2012). Two initial workshops with DCA staff members, Denki and Lucky Frame happened in November 2012. Staff participated from different parts of the DCA including operations, finance, marketing, exhibitions, education, cinema and the shop. (CReATEs, Workshop Audio, 2012). A key aspect of these initial workshops was:

- teaching staff to play games, in order that some of that game playing can be used as a test to see how it could affect what we do on a daily basis (Interviewee 9, CReATEs, Workshop Audio, 2012).

The focus was on “taking the mode of [games design] thinking and getting their staff more attuned to that way of thinking” (Interviewee 38, CReATEs Interview, 2012).

Prior to the workshops, a staff survey was distributed, in both paper and digital mediums, to all DCA staff at the time. The questionnaire aimed to:

- help us set up the workshops that will be happening for staff as part of this project. We hope to find out what experience everyone has of current digital technology and what issues or challenges you think we might focus the project around (CReATEs, DCA Staff Survey Questions, 2012).

The DCA Digital R&D project partners wanted to learn how DCA employees engaged with and used technology in their everyday lives. Staff were asked whether they had a smartphone and if they played games, on what platform: games consul, a computer or their mobile phone. Staff members were also asked for suggestions
about improvements that could be made at DCA with regards to more effective technology, e.g. anything customers had been asking for, or had issues with (CReATeS, DCA Staff Survey Questions, 2012).

Forty staff members completed the questionnaire out of a total of seventy, approximately (Interviewee 27, 2015). DCA operated with 43 FTE staff at the time (CReATeS, About your Organisation, Nesta Digital R&D Fund Scotland DCA Application, 2012). The questionnaire responses were collated and used as part of the first workshops with staff. The goal with using this information was: to allow the technologists and project leads from the DCA to assess the current level of engagement with digital technologies for staff and to “start a conversation on the day [the workshop]” (Interviewee 27, 2015). The workshops were considered as an opportunity for DCA staff to think through other ways of engaging with their audiences collectively with the technologists. As Lucky Frame explained:

> What we’re trying to find out with the workshops is how can the employees have a different way of relating to the audiences that are coming in to the DCA. So I think that’s where we’re approaching the audiences but through the medium of the employees (CReATeS Interview, Lucky Frame, 2012).

Transactions of talking about the artwork in the gallery or buying something in the shop were highlighted as the essence of what the DCA team are doing in the arts centre (CReATeS, Workshop Audio, DCA, 2012). A primary aim of the project workshops was to explore how people play computer games and how that experience could be transferred to interactions between DCA staff, the building and their audiences (CReATeS, Workshop Audio, DCA, 2012). Lucky Frame and Denki introduced their respective companies. Denki then provided insights into their games making process, describing “five pillars” or aspects of a game (CReATeS, Workshop Audio, DCA, 2012). These pillars are Drama, Feel, Life, Convenience and Twist. Drama creates interest in game play such as, change of pace, loud or quiet aspects. Feel aims to engender a type of feeling in the game player. Life is the concept that every “product” or game has a character affecting the way in which a game player or user engages with the product. Convenience allows focus for the game player in a particular level of the game, ensuring other distractions are removed. Twist is the hook that gets the player coming back for more and telling their friends about it (CReATeS, Workshop Audio, DCA, 2012).
The games that staff were being asked to play were then introduced. Games were selected by Lucky Frame and Denki. The selected games, which included some made by Denki and Lucky Frame, aimed to demonstrate a variety of game play aspects. These games included: *Angry Birds*, the popular game where birds are catapulted towards buildings to destroy structures that their enemies (green pigs) are sitting inside (Rovio 2016); Denki’s game *Quarrel*—described as “a war with words” available on Xbox 360 or iOS via the App Store—with the aim to make highest scoring words from a jumble offered in a time limit to help your troops win victory over an island (Denki Games 2016); and *Clop*—a game designed using Flash for play on a web browser operated using four keyboard keys—where the game player had to try and make the horse run using a key to operate each leg of the horse (Interviewee 37, 2015). This staff member described her experience;

so in little teams we played games that required different skills or games that were structured in different ways and thought about why we engaged with those games particularly, or what engaged us. […] Normally when you play games it’s just you and the computer but because we’re in groups we had that sort of group mentality and the competitive nature game out of people. […] I’m not a games player, but in a collaborative situation like that I will. (Interviewee 37, 2015).

Reflecting on this experience she recalled;

I enjoy it, and think you know, which bits of that game were good, was it the narrative, was it the instructions, what other layers could you put on, what was the mental feedback loop that was going on in your brain, what stimulation do you get, what gratification do you get and where does it take you (Interviewee 37, 2015).

Some groups wanted to read the instructions or rules of the game before playing. Other groups dived in and started playing immediately. Some reflection and feedback followed the game play. The look and design of the game was considered an important factor and simple games were the most gratifying (CReATeS, Workshop Audio, DCA, 2012). Discussions were directed towards how the staff might take what they had just experienced and learnt through the game play into thinking around the experiences that DCA customers have. These included aspects such as the language employed in communications with DCA audiences who have an age range from young people to those over sixty years of age (CReATeS, Workshop Audio, DCA, 2012). Discussing how to target audiences not already aware of certain events at DCA led to ideas around personalised suggestions similar to Amazon’s recommendations for existing customers. The aspect of so called “temporal trading”
at DCA was identified, meaning one exhibition on at a time, one film on at a time producing a fixed way of experiencing a gallery or a cinema.\textsuperscript{51} Finally, the intimidating view of the galleries was discussed. Staff felt that the “long walk” to the gallery doors was a factor putting people off entering that area of the building (CReATeS, Workshop Audio, DCA, 2012). Various ideas around how they could encourage people to enter less visited parts of the building were also discussed.

\textit{Prototype Solutions}

Denki and Lucky Frame met with the key project leads from DCA in December 2012. They discussed what their prototype designs would focus on using the learning points from the workshops. As the staff survey had affirmed, not everyone owns a smartphone, so the project partners were conscious to avoid assumptions about audience’s “use and understanding of digital media” (CReATeS, Workshop Observations DCA, November 2012).\textsuperscript{52} Two other points raised by the workshops were that “face to face interactions with audiences” remained important and encouraging information, movement and engagement with different parts of the building would be of value (CReATeS, Workshop Observations DCA, November 2012). The donations box was also highlighted in the staff workshops as a feature of the DCA entrance that amazed front of house staff because children would often ask to put money into the box even though it didn’t do anything. The box was made of clear plastic, situated on a white plinth at the top of the stairs (Interviewee 27, 2015).

Lucky Frame identified an interesting challenge in encouraging people to enter the galleries (CReATeS, 2012, Project Meeting Discussion Notes, 4.12.12). Denki were interested by the large audience engagement DCA had with the red card loyalty scheme. Denki noticed there was no link between the loyalty card scheme and the galleries. The fact that 1600 out of 2000 cards issued were being used piqued Denki’s interest (CReATeS, 2012, Project Meeting Discussion Notes, 4.12.12). The Red Card loyalty scheme was available from December 2010 (Dundee Contemporary Arts 2010b). The visitor to DCA earns points for each visit with their

\textsuperscript{51} The Senior Citizen Kane club was mentioned as an attempt to address this issue of “temporal trading” by offering a gallery tour after certain screenings (CReATeS, Workshop Audio, DCA, 2012). Senior Citizen Kane is a film screening every weekday morning for anyone over 60 years of age. Tea and biscuits are provided and the film is introduced by a member of staff with a chance to chat afterwards (Dundee Contemporary Arts 2016c).

\textsuperscript{52} 50\% of DCA staff owned a smartphone. Of this 50\%, 50\% owned an iPhone, 30\% owned an HTC, 8\% owned a Sony handset and 8\% owned a Blackberry (CReATeS, Workshop Audio, DCA, 2012)
card when making purchases in the shop or going to the cinema. The points are redeemable for free cinema tickets (Dundee Contemporary Arts 2012).

Two main areas further project activity could address were identified as a result of the workshops. The first was a lack of information being gathered about visitors to the galleries. Due to exhibitions being free to enter, no tickets were required by the gallery visitor, and hence no transaction (and the associated opportunity to gather data at the box office/front desk). The second was the existing donations box, noted for its plain and uninviting characteristics. The question of whether the donations box could be developed in order to increase donations was raised.

Two prototypes were decided on as projects for Lucky Frame and Denki to develop. The first was a new donations box. The second was using the loyalty card to build a picture of the visitor’s engagement with different parts of the building encouraging visitors into different areas of DCA in the process (CREATES, 2012, Project Meeting Discussion Notes, 4.12.12). Denki worked on the loyalty card prototype initially with Lucky Frame developing ideas for the donations box. Audience loyalty was of key interest to Denki who attempted to achieve this with each of their games, to “take a game and build a tribe around it” (Interviewee 38, CREATES Interview 2012). Lucky Frame set out to develop ideas for the donations box. However, they also began to generate ideas for the other line of enquiry. In early 2013 the games designers agreed to swap prototype developments. Denki thereafter developed the donations box and Lucky Frame worked on the loyalty card concept (CREATES, 2012, Project Meeting Discussion Notes, 4.12.12).

The Donations Box

Denki and Lucky Frame presented their concepts for feedback from DCA staff in May 2013 (CREATES 2013, Workshop Audio 2 DCA Prototypes, 9 May 2013). Denki developed the prototype Artcade machine, an object that was “part donations box, part art installation, part vending machine, part photo book, part arcade machine” (CREATES 2013, Workshop Audio 2 DCA Prototypes, 9 May 2013).

In the development of the Artcade prototype, Denki considered how a new donations box could generate an increase in donations for DCA. After some research, Denki concluded DCA was only receiving approximately two pence less per visitor
compared to donations received at other institutions in the UK, such as Tate Modern in London. Considering the amounts that DCA received were not particularly low in relation to other galleries, Denki wondered what visitor attitudes were to making donations. They questioned whether visitors were not donating because they couldn’t see the box or because they had no change—a problem of convenience, or if they just did not want to—a problem with engagement (CReATeS 2013, Workshop Audio 2 DCA Prototypes, 9 May 2013). Denki found it was a problem with engagement. The visitors and members of the public that they spoke to would rather take up what DCA offer for free. The question became: How do you stop those visitors leaving and engage them further?

As mentioned earlier, the Artcade prototype combined features of artefacts made to play games, display photos in a book, display art, sell items, and collect donations. According to Denki, the rather neglected arcade game machine format had not been developed in forty years. In their view Artcade could platform digital game content to inform and engage the visitor of the aims and achievements of the donations (CReATeS 2013, Workshop Audio 2 DCA Prototypes, 9 May 2013). The staff commented on how the concept could potentially incorporate connections with social media and the DCA print studio facilities.

In the final stages of the project, the project leads from each organisation DCA, Denki and Lucky Frame met with the contact from Nesta. A key outcome of this discussion is the highly productive and effective nature of the process they had been through (CReATeS Workshop Audio 2, 9 May 2013). Everyone involved in the project felt that the co-productive nature of the process, which included the staff throughout the project through the workshop activity, had contributed to this outcome (CReATeS Workshop Audio 2, 9 May 2013). Both games developers considered the first two workshops as vital staff experience which led to an attuned understanding of how the games developers worked and what they could realistically achieve in the subsequent prototype workshop (CReATeS Workshop Audio 2, 9 May 2013). Denki reached the valuable conclusion that audiences generally had the same expectations across the virtual gaming environment or physical environment of the art gallery or museum (CReATeS Workshop Audio 2, 9 May 2013). DCA staff felt the process was beneficial for their experiences of working together as a team (CReATeS Workshop Audio 2, 9 May 2013).
At this stage Denki were unable to continue the project development towards creating a physical prototype of their concept design. Denki had increasing obligations with other more commercial projects. Crucially they also felt they lacked the speciality skills required to join hardware with software. Denki offered the part of the fee for building the prototype back to the project. This fee was then offered to Uniform, a design agency that designed the physical donations box. A researcher from DJCAD worked alongside Uniform to fulfil the software coding parts required and the construction was completed by a DJCAD product design student (Interviewee 15, Feb 2015).

Artcade and the Minimalist Games Jam

In November 2014 DCA partnered with Abertay University to do a Minimalist Games Jam (Dundee Contemporary Arts 2015b). The new donations box Artcade (figure 50), developed from Denki’s prototype design, became known as “three pixel Artcade Machine” (Thomas 2014) or “The Pixel Artcade Machine” (Steven 2014). The concept behind the design was that each light cube of the box illuminated in a colour from the colour wheel. The colour of a box changed to the next in the spectrum when a coin was inserted. Three colours that went together according to colour theory would activate a special level of the game. Talking of the design Uniform said:

Our machine allows people to play and explore the basic colour theory that underpins much visual art and combines it with a nod to an 8-bit aesthetic. In the spirit of classic computer games the Artcade Machine also has a few hidden ‘easter eggs’ waiting to be discovered (Thomas 2014).

Uniform explored “a broad range of different physical digital concepts” for the design of the donations box (Thomas 2014). Using colour and light seemed a good fit for the medium of the interaction of the box in relation to the “DCA’s multimedia art exhibitions and cinema” (Thomas 2014). Artcade rather playfully reduced the image presented on a screen to red, green and blue, the three pixels used by screens in various combinations to simulate images. During the design development Uniform “kept asking [themselves] the question of what could a three pixel game look like” (Thomas 2014). Consequently, the Minimalist Games Jam was conceived. The challenge was put to Abertay University students “to develop a game using only three pixels, designed to be installed on the Donations Box at the entrance of DCA”,

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in a workshop lasting 24 hours (Dundee Contemporary Arts 2015b). In art history, minimalism reduced the elements of the artwork to the bare minimum. DCA were interested in exploring minimalist design through the donations box and potential games that could be developed to be hosted on the donations box (Interviewee 9, 2014). Twelve teams of students worked to develop their games. As a result, DCA commissioned two new versions of games produced for the donations box and an app that although not made for the donations box hardware was inspired by it (Interviewee 9, 2014). The games, *Interplanetary* by Jordan Brown and *Target Roulette* by Jeff Regis were available to play on the donations box throughout April 2015 (Dundee Contemporary Arts 2015b). The Minimalist Games Jam for one student provided the opportunity to learn new skills around the restraints of working with a “physical installation”. The learning aspects that the donations box offered in this way was recognised by one partner involved in developing the physical donations box: “so we’ve now been hacking it and […], what’s interesting is that it now becomes a learning space” (Interviewee 15, Feb 2015). The aims of Denki to develop a donations box that was a “digital plinth […] in the DCA for digital artists to exhibit” (Interviewee 38, 2015) were realised, despite the physical aspect presenting a challenge for the games developers. However, this physicality to Artcade was viewed as a vital element to engaging people with the game. As was commented, “it’s that physicality of something that draws people in. An app by itself doesn’t have that same thing that, people don’t get drawn in to it” (Interviewee 15, Feb 2015).

Small Society Lab

Small Society Lab workshops were a separate set of activities at DCA which explored digital technology mixed with research activity. Small Society Lab aimed to bring together artists, designers, scientists, community activists and members of the Dundee public to explore ideas around the overlaps of art, science and community (University of Dundee 2013). Small Society Lab, set up in 2011, began as a one-month programme of workshops, talks and co-creation sessions in a partnership between DCA and the University of Dundee DJCAD, (Interviewee 9, 2014). Small Society Lab events took place in the VRC space situated in the basement level of
DCA. The VRC was devised in co-ordination with DJCAD with the aim to create an open space for research and practice to be engaged with.

The VRC runs a high-profile public programme of events and exhibitions, bringing research proposals and outcomes into the public domain. The main setting for this is Centrespace—a large, adaptable studio/gallery space that spans both floors of the VRC (University of Dundee 2016).

The Small Society Lab was used as a way to “seed ideas” presenting them to the attending public and gaining feedback. It was described as a “platform for having [...] a bit of discursive engagement around some of these projects” (Interview participant 9, 2014). It was also considered as, “an open project which explores the development of the small city of the future” (Easson & Taylor 2015) and “planned as a centre for joint research and action in progressing the development and understanding of the small city of the future” (Rogers et al. 2015).

For DCA, the Small Society Lab was about creativity and technology and “trying to tease out the boundaries” (Interviewee 9, 2014). The events were open to the public but also curated in terms of some of the speakers invited to be part of a workshop:

Small Society Lab, which is open in terms of people coming, it’s advertised. It’s hard to get people to come [...] but then in terms of speaking, that’s highly curated by, in a nice way, in a conversation between [participant 9] and I, or [participant 11] (Interviewee 15, 2015).

The “community lab” was described as, “a diverse group of people following a highly engaging process of R&D in the place that they live” (Rogers et al. 2015, p.8). The concept of a community with a level of increased engagement compared to the concept of the traditional audience was also defined further by Interviewee 12 (2015): “communities persist for much longer than audiences do [...] an audience turns up to the theatre sits there for two hours and goes away”.

The Small Society Lab programmed a special open session of the DCA Code Club in 2013 (University of Dundee 2013). The prototype concepts developed from

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53 The projects mentioned here include: prototypes being presented developed from the DCA Digital R&D project, Code Club sessions and the Sagacity Project which aimed to create a mood monitor for the city of Dundee (New Media Scotland 2016).

54 In this first open Code Club session the open source programme Scratch was used and participants were asked to try and create “game environments” using Raspberry Pie computers (University of Dundee 2013).
the DCA Digital R&D project were also presented to a wider public via the platform of the Small Society Lab in June 2013 (Interviewee 9, 2014).

These Small Society Lab activities were viewed differently to the types of activity happening in the art galleries, which are about presenting artists. In the art galleries “the thesis is the contemporary art one about what artists are doing in galleries really rather than what technology is doing in terms of creativity” (Interviewee 9, 2014). The Small Society Lab activity was part of a larger set of activities, which were driven by the question of how technology could intersect with art and other activity at DCA (Interviewee 9, 2014). As was mentioned earlier DCA explored how they could use their marketing presence more effectively through digital technologies and they were early in adopting apps.

Information about the Small Society Lab and their activities since 2011 has been published on a variety of online platforms, such as Abertay University, DCA, and the British Council websites, Facebook, Slideshare, Vimeo and You Tube (Small Society Lab 2011). People attending Small Society Lab events also used Twitter to share their activities with their wider communities of friends and colleagues. Lastly, the focus on human interaction was made explicit by Easson and Taylor (2015), who wrote:

As most in Dundee were not ‘digital specialists’, in a world obsessed with what new tech comes next, it was a great reminder that technology’s real gift is its ability to enable genuine and accessible shared experiences.

This activity setting has presented audience engagement activity in contemporary art related to the DCA Digital R&D project, a games jam and the Small Society Lab events. The DCA building was described and the features which mediate the experience for the DCA audience were detailed. Printed publications in the form of leaflets, were shown to be present as tools for communicating the DCA program of activities, in addition to the other forms of traditional publication—the magazine and books. Interactions and the key word transaction were shown to be of importance for DCA as they focussed on experimental activity of the Digital R&D project. This activity involved a mix of digital and analogue tools, key to which is the architectural space. This activity setting is shown to include games developer activity and activities with technology which are open ended rather than pre-defined.
The final part of this thesis includes the analysis chapters which are formed into thematic areas, beginning with Events.
Part III  Analysis
The Dynamics of Post-Digital Audience Engagement

Overview of Engaging Audiences in the Post-Digital Age

Nuances of the conceptualisation of post-digital audience engagement activity in and across publishing and visual arts are developed in this penultimate part of the thesis. Each analysis chapter discusses a theme selected as the most prominent feature of audience engagement activity observed in this research in order to address the research question and sub-research questions. The focus of this analysis chapter is the exploration of the sub-research question: how are cultural works in publishing and visual arts mediated with audiences in the post-digital age? i.e. what are the dynamics involved in activity systems of audience engagement activity exemplified by this research? The previous findings chapters detailed the prominence of events as a key part of audience engagement activity. Events were shown to enable engagement and interaction amongst cultural/sector organisations, their audiences and the cultural work they represent/develop. Thus, event activity is selected as the focus for analysis to address the questions above.

Engaging Audiences through Play (chapter 8) discusses gamified approaches, playful and open-ended audience engagement activity. Therefore chapter 8 focusses on addressing the questions for this research of: what happens during playful and experimental activity undertaken to engage audiences? and what are the implications of gamification and play for audience engagement activity? Gatekeeping (chapter 9) discusses and addresses sub-research questions around the implications and challenges of increased participatory audience engagement activity for cultural/sector organisations and their gatekeeping roles. Gatekeeping is discussed in terms of the rules of activity as they are challenged by altered relationships with audiences in some circumstances. Instruments of Audience Engagement (chapter 10) discusses the visual, symbolic cues and materiality of mediating instruments. Transformed relationships as a result of developed technologies and hybrid uses of them are discussed in this chapter. Thus chapter 10 addresses the implications of developed mediating means (tools) for our understanding of audience engagement activity in the post-digital age.
This chapter begins with discussion of the broader motivations (the outcome) and the object of activity (collective goal/motive) for members of the collective subject in each activity system forming the activity settings of this research. Tables 2–4 (pp.167–169) provide an overview of the dynamics of collective audience engagement activity. These tables detail each activity setting and the framings of activity that form them, as derived from the findings in chapters 4–6. The column headings of each table are derived from the elements of the activity system in CHAT.

As explained in chapter 2, activity (also known as a practice) is understood as mediated collective activity conducted over a long period of time, combined of shorter duration goal directed actions and operations of individuals, directed towards a common object of activity. In Engeström’s activity system, the collective subject is the group of people under consideration doing an activity. The object of activity is combined of the motive/s behind the subject members’ actions and the commonly agreed goal for goal-directed actions. In the activity system the outcome represents the larger intangible motive/s for activity, extrapolated from the object. The outcome is the projected motivational new pattern of activity from an activity system forming the potential for interaction with other activity systems. The subject conducts collective activity within the larger community of people doing similar activity (with a similar object of activity) elsewhere. The division of labour examines how the activity is organised by way of individual goal-directed actions which form it. Explicit and implicit rules of activity are those agreed upon by the community and the subject. Tools/instruments mediate the actions of the collective subject towards their common object.

Details of the elements described above for each activity system forming each activity setting are provided in tables 2–4. The activity systems in table 2, the setting of Publishing and Literature include: the Digital R&D project, LBF, Dundee Literary Festival and Electric Bookshop. Table 3 provides details of the activity systems forming the activity setting of National Art Collections: the Digital R&D project that produced ArtHunter, ArtHunter updates further to the completion of the Digital R&D project, Studio of Objects, Artecasting, and Curating Audience Engagement. Table 4 provides details of the activity systems forming the activity setting of contemporary art: the Digital R&D project, Arctade, the Minimalist Games Jam, Drop in and Play, Code Club and Small Society Lab.
Motivations Behind Engaging Audiences in the Post-Digital Age

Prior to progressing with analysis focusing on events as a feature of post-digital audience engagement activity, this section of the chapter discusses the object of activity and the broader motivations (outcome) behind them for the collective subject in each of the activity systems in tables 2–4.

Expanding Audiences for Books in the Digital Environment and Connecting with Audiences

In the publishing and literature activity setting (table 2), the object of activity for the Digital R&D project was to produce the Bookspotting App. The collective subject involved in this activity system envisaged that the Bookspotting App would help tackle the ongoing challenge of book discovery in the digital environment. The commonly agreed goal for producing Bookspotting was to develop playful ways to create heightened awareness of Scottish literature for mobile phone users, by employing key functionalities of the mobile device such as GPS. As presented in chapter 4, the key outcome (table 2) of producing Bookspotting for Publishing Scotland was combined of motivations for their collective activity as a sector organisation championing publishing activity in Scotland to audiences nationally and internationally and also helping this sector of publishing industry to innovate. Key challenges for this sector were digitisation and direct-to-reader marketing. New resources produced from the activity system of this Digital R&D project went into the activity system of re-developing the Books from Scotland website.

Publishing Scotland’s broader motivations for their activity as mentioned above were also made manifest through the Publishing Scotland stand activity at LBF. The object of activity for the Publishing Scotland stand was to showcase their publisher members’ activity to the larger publishing community coalescing in London Book Fair activity. The organisation provided affordable access for smaller member and network member publisher businesses to conduct their business at the fair. Thus, Publishing Scotland members were offered the opportunity to gain access to the national and international publishing community and to markets they represent at LBF, which commercially supported their business. Publishing Scotland’s activity at LBF was motivated to help create an environment which supported publisher activities in an international context. Publishing Scotland seeks to promote the value
of publishing produced in Scotland. This contains a political motive when considering Publishing Scotland obtains funding from Creative Scotland. Creative Scotland is motivated to support the arts in Scotland and by funding Publishing Scotland it is supporting the publishing industry of a comparatively small nation. Thus, the activities of Publishing Scotland are carried out with a remit from cultural policy, but they also help shape cultural policy. This point is discussed further in chapter 9.

The LBF activity as a whole (table 2) involved a collective subject comprised of book publishers, other media/content producers and companies, digital service providers, lecturers and researchers, students, authors and self-publishers. The object of activity for LBF is combined of the different goals of the people in the collective subject. The primary goal for publishers is to do business with others at the fair, in the form of individual actions of buying and selling rights to publish content. Other media companies have a similar goal. However, for researchers, lecturers and students of publishing, common goals are to respectively produce research and learn about the industry, to meet people in existing networks and to grow these networks. The broader motive of education and learning in this context is also shared by the publishers and other media companies, (including self-publishers) in the form of making provision of useful resources and advice, as was shown by the panel discussions in the findings. A key motivation for companies in the publishing and media industry is to make money (through the buying and selling of rights to publish in new territories for example, or through selling a new digital service to a publisher). However, this lies in contrast and possibly at times in tension with two other motivations: that of education and learning about and for the industry (for researchers, lecturers and students) and; that of making literary/cultural content public towards increasing regard with peers (for authors and/or self-publishers).

The panel discussions at LBF and the PDMC indicated activity which was motivated by the needs (akin to education and learning) of people in the collective subject and the broader community of publishing, television and film and games development (gathered together under the auspices of London Book and Screen Week). The object of activity for PDMC was the creation of discussions around the central topics of consumer engagement, future trends and content strategies, which included the sharing of new activity across industry mediums by guest panel
speakers and presenters (and subsequent debates with audience members). New relationships with audiences and finding new audiences (e.g. book discovery in the digital environment) was a common motivation behind this object of activity for the collective subject at PDMC panel discussions.

The discussion of crowdfunding by the panel at the Author HQ in LBF was motivated by the need/will of self-publishers and authors wishing to by-pass the conventional publishing process with a publisher. The panel discussion exemplified the object of activity for crowdfunding was to successfully market a project idea in the digital environment, thereby garnering enough attention by people in the general public to support a project under development. Hence through the lens of CHAT, crowdfunding activity transforms a collection of people (members of the public) into an audience who collectively support a project-pitch. Ideally, crowdfunding aims to create and grow a fan-base which develops the successful amount of funds required to develop and publish a project.

In the wider literary community, motivations evidenced by the panel discussion organised by Electric Bookshop included the exploration of future potential forms of the written word and developing technologies for reading activity. Thus, a motive behind the activity programmed by Electric Bookshop for their events is discerned as the exploration of technology developments and the implications for members of the community involved in making literature. This motive was exemplified by the object of activity evidenced at the Dundee Literary Festival panel discussion Marginal Technologies: The Future of Books in a Digital Age, to construct a more nuanced debate around new technologies and their uses in the mediation of reading, writing and publishing activity. The motive behind this object of activity for the author was to develop work that responded to iPad technology in a way which was led by the content of the story and not determined by the technology.

Authors took a more central focus in the activity of the Dundee Literary Festival, which had the object of activity to celebrate and promote books and authors. The motivation behind this object of activity (outcome, table 2) was to increase audiences and regard amongst audiences for Scottish Literature. The activity of the author as the subject in the activity system of the Twine Jam (hosted by Electric Bookshop) was also in focus, as the people gathered together for that
workshop aimed to learn how to use the Twine software to create new kinds of ergodic stories. The activity of storytelling, reading and publishing were combined in the use of Twine which this example of workshop activity and the wider Twine forum activity highlighted.

Expanding Audiences and Creating New Relationships with National Art Collections

In the activity setting of audience engagement in National Art Collections (table 3), the object of activity for the Digital R&D project was to develop the mobile app ArtHunter. A key motive (outcome) behind this object activity for NGS was a new digital tool envisaged for improving audience engagement with the national collections on display across the gallery venues and encouraging repeat visits. The broader motivations for the NGS behind their activity to engage audiences included creating new relationships with audiences and developing their partnership programme. Motives behind NGS activity more generally pertain to the custodianship of the national collections of art, and the activity that entails (e.g. preservation, archival, research and exhibition work).

In addition to the motivations described for NGS, the new resources produced by the Digital R&D project were used in the subsequent update of ArtHunter in a new activity system. This activity system had the object of activity to expand the number of galleries and artworks that were presented in the app. The update activity was thereby motivated to expand the audiences for the ArtHunter app, the artworks presented on it and the number of galleries involved in the collective subject of this activity system. The motives for external galleries to partner with NGS for the inclusion of their works on the updated ArtHunter app involved increasing recognition and awareness of the works they presented via the tool of the ArtHunter app and the NGS brand.

The object of activity for the Studio of Objects project was the production of an iPad app that could be used as a tool for remote access and virtual engagement with the Paolozzi Studio. The broader motivations of this project for Hijack included celebrating and opening up Paolozzi’s work to the public. The Studio of Objects launch event contained these same motivations with the object of activity for the event to showcase the prototype app produced. This event had similarities to the
preview night of a gallery exhibition. The prototype app was not completed for publication to wider audiences. However, this interactive launch event at the end of the Digital R&D project aimed to make the results of the project public to the community attending the event. Thereby an audience and further awareness of Paolozzi and his work was both generated and mediated by the launch event activity and the prototype iPad app. The interactions with the app during the event made it possible for audience members in London to engage remotely and virtually with Paolozzi’s works and studio held in the NGS in Edinburgh.

The broader motivations (outcome) behind the Artcasting project object of activity related to developments of audience interpretation and evaluation. Shared motivations behind the Artcasting activity included the potential development of new modes of interpreting artworks, broader potential for gallery evaluation using mobile devices and the theoretical implications of this activity. Finally, the curator of audience engagement activity had the object of activity of improved audience engagement strategies involving seeking out partnerships with external organisations.

*Expanding Audiences for the Contemporary Art Centre and Creating Playful Audience Engagement*

In the activity setting of contemporary arts (table 4), the Digital R&D project had the object of activity to develop concepts for the development of playful transactions with audiences. One outcome of this activity system was the material resources which could be incorporated into future activity, the development of prototype concept for a new donations box. The development of Artcade in a new activity system (table 4) had the object of activity to increase donations and customer loyalty for the DCA in a playful way. The motivation for the games developer (an outcome) behind the donations box activity system was to produce potential new audiences, (thereby expanding audiences) for contemporary games situated in the contemporary arts centre. Broader motives for DCA included continuing to innovate the audience engagement experience.

The subsequent Minimalist Games Jam activity had the object of activity for participants in the collective subject to produce new games for Artcade. This activity continued to be motivated to expand audiences or to generate new audiences for
contemporary games out-with the games for entertainment community of activity. Therefore, the object of activity for the Minimalist Games Jam was to showcase games in the context of the contemporary art centre via tools of the Artcade donations box and digital code writing software. The student participating in this collective activity was motivated by the potential to be commissioned by DCA to provide a game to showcase on Artcade. Thus, the object of activity for the donations box was twofold. The donations box collected money from DCA’s audiences (willing to donate it) and it showcased games made locally in the contemporary arts centre. The Minimalist Games Jam event activity used the material form of the donations box as the platform for displaying the developed games, commissioned by DCA. However, the donations box also became a resource and object of activity for games development learning for the students involved in the Minimalist Games Jam and their wider studies.

   The primary motivation behind the collective activity for games developers, who present their games under development at The Drop in and Play events at DCA is games testing. This projected outcome also includes the potential for the creation and/or expansion of audiences for that game once completed. The motivation for DCA in this activity system is associated with their motives for the ongoing development of their public engagement activity. This included engaging audiences who can also participate in making something—linked to an outcome of learning.

   Finally, the object of activity for the Small Society Lab events was to produce prototype concept solutions to issues in civic life. Small Society Lab organisers were motivated to develop discursive engagements with audiences who shared an interest in exploring the crossovers between art practice, technology and broader society. On an institutional level, the object of activity for the subject of University of Dundee, DJCAD and DCA in larger activity systems relating to those institutions, was to fulfil a need to increase the accessibility and function of the VRC. The projected motivation (outcome) behind this object of activity was to generate audiences for research activity. This could be related to the tensions caused in the activity systems of researchers, of the impact agenda situated in the broader context of activity for the research institutions involved. The intention for the VRC space was research activity. However, activities tended not to involve the public, out-with the academy, to the degree that some people would have liked. The VRC space became a tool for
mediating activity of events and workshops. These co-productive events and workshops explored the boundaries of research, art practice and technology with the broader community of Dundee. The projected outcome of Small Society Lab activity is expanded audiences and new resources which contribute to future event and research activity systems.
<table>
<thead>
<tr>
<th>Community/Institutional Level Activity</th>
<th>Subject</th>
<th>Object</th>
<th>Community</th>
<th>Division of Labour</th>
<th>Rules</th>
<th>Tools</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital R&amp;D Project</td>
<td>Publishing Scotland, Spot Specific, Saraband, Nona, CReArTS, Creative Scotland, AHRC, Bibliographic Data Services (BDS).</td>
<td>Producing the Booksetting app; Creating playful ways to create heightened awareness of Scottish literature via the mobile phone.</td>
<td>Cultural/sector organisations and game developers working on Digital R&amp;D projects towards improved audience engagement.</td>
<td>Publishing, Scotland commissioned partners for the project. Spot Specific augmented the data, developed the app and created the aesthetic design. Saraband edited the content to fit the size restrictions of the app; directed the design and visuals of the app. Creative Scotland, Nona and the AHRC funded the project. BIDS organised and tagged bibliographic data of books for libraries. CReArTS conducted research, presented findings and published reports.</td>
<td>Rules of the Digital R&amp;D fund; conventions of engaging with contemporary art, literature, and cultural/sector organisations; research conventions; staff involvement.</td>
<td>Spot Specific app development software; Scottish book titles sourced from Books from Scotland website; mobile device and its features (e.g. GPS); Apple and Google Play platforms.</td>
<td>Book discovery in the digital environment. The expansion of audiences for Scottish publishing nationally and internationally. Helping the sector to innovate.</td>
</tr>
<tr>
<td>London Book Fair (LBF)</td>
<td>Publishing companies, digital solution providers, non-book product providers, services to the publishing industry, researchers, lecturers and students in the field of activity of publishing, authors and self-publishers.</td>
<td>To undertake publishing business and publishing research learning activity. Growing networks and maintaining existing ones.</td>
<td>Global publishing and media industry.</td>
<td>LBF organises the seminar programme, marketing and administration of the event. Exhibitors organised their stands, branding materials and products.</td>
<td>Conventions of business meetings and the explicit rules of selling and buying rights.</td>
<td>Conference venue (Olympia building 429/400m of floor space), exhibition stands, seating, tables, etc., exhibitor products and branding materials, industry journalism (e.g. The Bookseller, Publishers Weekly), and Twitter.</td>
<td>Commercial and cultural motivations (e.g. Publishing Scotland's motivations to support small nation publishing in the wider national and international context). Educational/learning motivations.</td>
</tr>
<tr>
<td>Crowdfunding Panel Discussion, LBF Author HQ, 2015</td>
<td>Authors, people working in the film, book and comic industry, readers, crowdfunding organisers.</td>
<td>Marketing a project idea to generate/retain an audience willing to financially support its development.</td>
<td>Crowdfunding platform users and owners, fan bases, friends and family.</td>
<td>People in the community who support the project pledge money in return for something offered from the project pitch organisers/producers. The crowdfunding platform provides the tools and resources for publishing the pitch film and landing page content. The author creates the pitch film and landing page content and markets the project.</td>
<td>Usually for a successful project pitch, 30% of the project funding has to be promised by the author's friends and family.</td>
<td>Crowdfunding platforms (e.g. Indiegogo, Kickstarter and Publish). Pitch film, landing page, artifacts of the creative process, social media.</td>
<td>Supporters of a project pitch are transformed into audiences and fan bases for said published/produced project. Direct contact/relationship with audiences thereby bypasses the need for a conventional publisher.</td>
</tr>
<tr>
<td>Dundee Literary Festival</td>
<td>Authors, readers, University of Dundee, Peggy Hughes and other organisers of the festival.</td>
<td>To celebrate and share great books and writers (i.e. the promotion of writing and authors to consumer audiences).</td>
<td>Authors and readers (including fans of literature and comics).</td>
<td>Festival organisers plan and organise: programme events and speakers of the festival; marketing the event; producing the programme in printed pamphlet form and digitally on the website; the venue and practicalities of room set up; and ticketing. Authors and invited speakers speak at the events and hold discussions with the public attending the festival.</td>
<td>Panel discussions follow traditional conventions of speakers in the front of the audience and a chairperson who regulates and directs topics of discussion. Audience members can usually ask questions at the end.</td>
<td>University and museum buildings in Dundee, sitting and tables, speaker and mic system, laptops, PowerPoint slides, projector and screen.</td>
<td>Generating audiences and further attention for authors' content with existing audiences.</td>
</tr>
</tbody>
</table>

Table 2: Activity Setting of Publishing and Literature
<table>
<thead>
<tr>
<th>Activity</th>
<th>Subject</th>
<th>Object</th>
<th>Community</th>
<th>Division of Labour</th>
<th>Rules</th>
<th>Tools</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGS Digital R&amp;D Project</td>
<td>NGS, Kotik, Nest, CREATES, Creative Scotland, AHRC</td>
<td>To produce the mobile app, ArtHunter</td>
<td>Cultural/sector organisations and games developers working on Digital R&amp;D projects towards improved audience engagement.</td>
<td>Kotik developed the app mechanisms and design. NGS created and gathered together the content for the app. Nest, Creative Scotland and AHRC funded the project. CREATES conducted research, presented findings and published reports.</td>
<td>Rules of the Digital R&amp;D fund; conventions of engaging with contemporary art and conventions of audience engagement; research conventions; staff involvement.</td>
<td>Kotik developer tools, written content and images of artworks. Apple and Google Play platforms.</td>
<td>Generation of repeat visits by audiences. New relationships with audiences and increased interactive art viewing experiences. New digital tools for audiences to engage with ongoing activity of organisation (i.e. the preservation, archival, research and exhibition work). NGS also motivated to develop working partnerships with other organisations.</td>
</tr>
<tr>
<td>ArtHunter update after the Digital R&amp;D Project</td>
<td>Participating galleries in Scotland, NGS</td>
<td>Update to ArtHunter for the Generation exhibition. The expansion of galleries and artworks presented in the ArtHunter app.</td>
<td>Other mobile app development activity, produced by and for galleries, used for audience engagement.</td>
<td>NGS sent out invitations to galleries with collections to be presented in the ArtHunter App. Galleries responded by sending the requested information and digital content.</td>
<td>NGS was in control of the ArtHunter app and content. Guidelines were put in place for partner organisations submitting work for inclusion in the update.</td>
<td>The ArtHunter App, mobile devices, images and descriptions of artworks presented on the app, pro-forma template documents, guideline documents, email.</td>
<td>The expansion of audiences for NGS and correspondingly the development of a network of galleries across Scotland presented via the ArtHunter app. Motivations for partner galleries included the opportunity to increase regard and awareness with audiences by becoming associated more closely with the NGS.</td>
</tr>
<tr>
<td>Studio of Objects</td>
<td>Hijack, Diesco, University of Kingston, Creative England, Nest, Touch Press</td>
<td>To produce the Studio of Objects (iPad app).</td>
<td>Digital R&amp;D Fund England (Nesta, AHRC, Creative Scotland), Project activities of other institutions/communities funded by this fund.</td>
<td>Nest, AHRC and Creative England funded the project. Hijack and Diesco worked together with Kingston University to scan the studio. NGS allowed access to the Paolozzi Studio.</td>
<td>Rules of the Digital R&amp;D Fund and the rules of access by NGS to the studio.</td>
<td>iPad, 3D scanner, Paolozzi studio in NGS, the launch event.</td>
<td>Developing remote access and virtual engagement with the Paolozzi Archive, the Paolozzi Studio (and works contained) held in the NGS collections. Broader motivations for Hijack included generating audiences and attention for Paolozzi the artist and his works.</td>
</tr>
<tr>
<td>Curating Audience Engagement</td>
<td>NGS, Artist Rooms, Dadasphono, Collector Funds</td>
<td>Pulling together strategies across all the galleries and developing new strategies in partnerships with other organisations for improved curated audience engagement.</td>
<td>Other galleries with curators of audience engagement activity happening.</td>
<td>The Curator of Engagement works with other curators, the education department and NGS partners to create tools for audience engagement across the exhibitions at NGS.</td>
<td>Conventions of established audience engagement activity.</td>
<td>Resource rooms, information spaces, mobile apps, videos, iPads, NGS website.</td>
<td>Increased depth and expansion of audience engagement activity in partnership with other organisations. Generating a cohesive visitor experience across the gallery venues of NGS, which incorporates a mix of digital and physical interactive tools.</td>
</tr>
<tr>
<td>Artcasting</td>
<td>University of Edinburgh, NGS, Tate Artist Rooms</td>
<td>To build the mobile platform/app Artcasting.</td>
<td>Art galleries’ education and audience evaluation teams.</td>
<td>University of Edinburgh designed and developed the app. Researchers explored the theoretical implications for gallery evaluation using mobile devices. Artist Rooms explored the possibilities for evaluation using mobile devices and apps like Artcasting.</td>
<td>Copyright (the app had to blur images of artworks when the user accessed them outside the exhibition venue).</td>
<td>Apple platform for iPad and iPhone and the Liechtenstein and Robert Maggellhorn exhibition (Four Flat Artist Rooms Exhibitions).</td>
<td>Audience evaluation and interpretation: the possibilities for gallery evaluation using mobile devices and the theoretical implications of this activity for research in education.</td>
</tr>
</tbody>
</table>

Table 3 Activity Setting of National Art Collections.
<table>
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<tr>
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<tr>
<td><strong>Digital R&amp;D Project</strong></td>
<td>DCA, Denki, Lushy Frame, Nesta, CfBAiTeS, Creative Scotland, AMRC.</td>
<td>Methodologies for emergent art practice combined with collaborations in art and technology, Playful transactions between DCA and their audiences.</td>
<td>Cultural/sector organizations and games developers working on other Digital R&amp;D projects towards improved audience engagement.</td>
<td>DCA employees and the CfBAiTeS researcher are audience members and participants of the workshop activity in the project. Denki and Lushy Frame investigate daily activities in the building, AMRC, Nesta, and Creative Scotland fund the project. CfBAiTeS conducted research, presented findings and published reports.</td>
<td>Rules of the Digital R&amp;D Fund. Other implicit and explicit conventions engaging with contemporary art; engaging with the organization; research conventions; and staff involvement with the project.</td>
<td>Workshop events, games, DCA buildings, rooms, tables and chairs for holding workshops.</td>
<td>New resources available for use in subsequent activity systems, such as the prototype concepts for a new donations box and loyalty and scanner machine. Broader motivations for Denki included testing out their methodology for innovation and digital/art world interactions. Motivations for DCA included continuing to develop innovative means of engaging audiences.</td>
</tr>
<tr>
<td><strong>Donations Box Development (Art decade)</strong></td>
<td>University of Dundee EDOCAD, Uniform Design Agency (London), DCA.</td>
<td>To develop a new donations box using the prototype concept developed from the Digital R&amp;D project as a basis.</td>
<td>Other public arts/sector organizations also looking for ways to engage audiences and increase/renew donations.</td>
<td>University of Dundee worked with Uniform to create the physical donations box, using the prototype Denki had created as an outcome of the Digital R&amp;D project.</td>
<td>Aesthetic conventions (e.g. that the new donations box should fit with the aesthetics of the building and DCA as a contemporary art centre).</td>
<td>Prototype concept (a resource produced by the Digital R&amp;D project) and materials for the box.</td>
<td>To produce potential new audiences (thereby generating potentially expanded audiences) for contemporary games in the context of a contemporary arts centre. Motivations for DCA also included increasing donations/support for their continued organisational activity using a ‘gimmick’ donations box.</td>
</tr>
<tr>
<td><strong>Minimalist Games Jam</strong></td>
<td>Staff and students of Abertay University, DCA.</td>
<td>To produce games for Abertay (the new donations box) in a new context for games, (e.g. the contemporary arts centre).</td>
<td>Games developers undertaking similar ludic activities/events elsewhere.</td>
<td>The students worked to develop new minimalist games for Abertay. DCA selected three games from the prototypes. These games were installed in Abertay during April 2015 for public use/play.</td>
<td>Students had 24 hours to produce their games. Games had to be made using only the minimum of three pixels.</td>
<td>The new donations box (Art decade), coding software and programming tools.</td>
<td>The generation and expansion of audiences for contemporary games out with the traditional games/entertainment industry.</td>
</tr>
<tr>
<td><strong>Drop in and Play Events</strong></td>
<td>DCA, Future Fossil, University of Abertay.</td>
<td>Games testing at the level of prototype stage of development.</td>
<td>Game developers undertaking prototype development of games.</td>
<td>Drop in and Play audience members play prototype games, who then provide valuable feedback for the game developers.</td>
<td>People over the age of 10 years were invited to come and play games in the prototype stages of development. They provided feedback to the games developers on their experience and opinion of the game.</td>
<td>Games and game playing devices.</td>
<td>Broader motivations for games developers included gaining audiences for games under development. This was augmented with the assistance of game play and associated areas for improvement, in addition to gauging potential success of the fully developed game. Motivations for DCA included developing a family audience, augmented with an increased face-to-face contact motivated to grow the education team's network of contacts.</td>
</tr>
<tr>
<td><strong>Code Club Activities</strong></td>
<td>DCA, Code Club, Maker Space and Future Fossil.</td>
<td>To teach young people how to write code.</td>
<td>People taking part in Code Club activity elsewhere (access across the Code Club network in the UK).</td>
<td>DCA Education department worked with Code Club to become a venue in their network across the UK, Future Fossil and Maker Space facilitated the workshops.</td>
<td>Only available to young people aged 9-11 years.</td>
<td>Raspberry Pi® (DIY hardware electrical boards which can be programmed with coding to do things).</td>
<td>Generating young audiences participating in learning about and doing coding.</td>
</tr>
<tr>
<td><strong>Small Society Lab</strong></td>
<td>DCA, University of Dundee, 13thCAD, Dundee citizens, Creative Dundee, invited speakers and workshop leaders.</td>
<td>Explore prototype solutions to civic issues and potential crossovers between art, technology and society.</td>
<td>Co-productive research activities in the fields of Art, Design and Technology.</td>
<td>DCA worked with the University of Dundee to programme events and workshops in the Vitrine space.</td>
<td>The audience members attending the events should be able to participate in the process of the activities being undertaken.</td>
<td>VRC-space and furniture in the DCA building, materials for drawing and writing, laptops and mobile devices.</td>
<td>Developing and generating audiences and diverse engagements for and with research and design/cultural activity. Also known as an impact in the research community.</td>
</tr>
</tbody>
</table>

* Raspberry Pi Foundation provides low cost electrical boards which can be programmed by people who want to learn how to code and create their own technological devices (Raspberry Pi Foundation 2018).

Table 4 Activity Setting of Contemporary Art.
The Role of Events in Expanding Audiences and Developing Relationships

The previous discussion of the motivations behind the object of activity of audience engagement activity across the activity settings highlighted key broader projected outcomes of activity undertaken by the cultural/sector organisations in this research. In the post-digital age, a mix of virtual/digital and physical features of tools which mediate activity, and a similar mix of virtual/digital and physical contexts/situations are more clearly observable in events. Focussing discussion on events illustrates the importance and role that they play for: generating and expanding audiences; creating the opportunity for playful audience involvement; generating new connections and new relationships with audiences in the post-digital age.

Firstly, in light of the prototype readiness of the Studio of Objects app, which in the end was not fully published, the launch event itself became an important publication of the work that had been created. The launch event for Studio of Objects generated an audience who during their attendance engaged in viewing the display of projections of the three-dimensional scans created for the app and had the opportunity to experiment with the prototype app in use.

In the setting of publishing and literature, the live panel events of the PDMC were re-mediated through the activity of live tweeting conducted by the collective subject of the PDMC activity. The twitter feed #PDMC15 illustrated how Twitter and Twitter users created an echo chamber in digital/virtual space of the physical event. Thus, the community of activity, which included people elsewhere doing publishing activity and who also shared an interest in audience engagement activity in the digital environment, were privy to highlights of the event as it happened. The Twitter audience were taking part in a virtual conversation happening in parallel to the discussions happening at the PDMC venue over the course of the day. Therefore, the audience for the physical live events happening in the timeframe of LBF and PDMC was expanded through the different hash tag streams in Twitter. Each Twitter user has a following of Twitter users (an audience of their own that they consequently generate in the use of Twitter). Therefore, the audience attending a live event is much bigger than it physically appears in the venue. It is combined of the audience present in the room of the event and a digital/virtual audience who can
share in a version of the event activity while it happens through the connection made remotely using Twitter (or at a later time while reviewing their Twitter feed).

The Publishing Scotland stand activity system at LBF (figures 18–20, and 23–24) interacted with the activity systems of the other stand activity in the conference venue. Accordingly, the publisher members at the Publishing Scotland stand could conduct activity with the outcome of producing new networks and nurturing existing ones. These networks are conceived as consisting of people with shared interests, who are also actively participating in publishing activity. Publishing Scotland publisher members who took part in this collective LBF activity could therefore conduct their activity in an expanded way. This was by virtue of the new networks/access to members of the collective subject (attendees at LBF) located in geographical locations further afield than their own, or by virtue of making key contacts with people working in the smaller community of activity of digital services for example, all participating in the various activities at LBF.

The ‘Real’ New Publishing seminar at LBF 2015 discussed alternative ways of connecting with and expanding audiences. The collective activity of Do Book Co. was mediated by printed publication formats and online content created from a public talk, The Do Lecture. Each live Do Lecture had the object of activity to produce a live audience in attendance for the topic being presented by the author/producer of the talk. The content of the public talk was subsequently published in print and online. Thus, the activity systems of the printed and online publishing activity interact with the central public talk. The live event of the Do Lecture is central to the projected outcome of audiences produced for the content that Do Book Co. creates in the three forms it is mediated in. The audiences at these events were described as people who use digital content but also appreciate the tactile quality of craft, DIY and printed publications. This feature further illustrates the post-digital nature of audience engagement for organisations in this research. Similarly, the TCO London media company employed a mesh of printed, digital and live events towards their object of activity. Their events were motivated to be occasions where brands and audiences could physically interact. The printed publications TCO London produced were limited in number, whereas the digital content was produced in abundance (interpreted as the rules of their activity). TCO London considered the quality and opportunity provided by tools for digital content.
was the ease of its abundance, which could be replicated by others and shared through social media. In contrast, TCO London considered the value created by the printed publication was in limiting the number of copies in an edition. The resulting scarcity of the printed product made it more valuable in relation to the abundance of the digital formats they produced. The event was also key to Harris + Wilson’s activity who created content in collaboration with the author and a publisher. The community of this activity system included authors, publishers and other media companies. The live face to face event activity was a key mediating means towards their object of activity of connecting audiences with content. The mesh of mediating tools of print, websites, and video formats become almost secondary tools, compared to the event, for the motives of this company’s activity.

Do Book Co. activity, presented at The ‘Real’ New Publishing seminar, generates audiences with live public lecture events. Audiences are developed further by activities that produce printed publications and content online. Branding is a part of this activity and is clearly communicated across all the mediums of the event, book and website. The audience generated by Do Book Co. recognise and identify with the brand that Do Book Co. create. The activities of TCO London and Harris + Wilson can be seen in a similar way but within different communities of activity. The audience Harris + Wilson principally identify and make proposals to are producers.

Examining the division of labour in the activity system of crowdfunding (table 2), different groups of people who actively support their particular project of interest, do so by donating funding for their chosen project. The pitch film and landing page on the crowdfunding platform are tools to decide which project is worth supporting. In return, people making a donation receive a piece of the cultural process on offer from the author/self-publisher of the project. The community of the activity system includes other crowdfunding users (a friend or family member, or a self-acknowledged fan of the author for example). The author (in the subject of the activity system) produces the pitch film and landing page for the crowdfunding platform. The crowdfunding platform provides the materials to support this activity and organises the donations. Therefore, crowdfunding activity involves the production of an audience for the project before any part of the project has actually been produced. The prospective audience/consumer for the cultural work has bought
into the idea prior to its production. Thus, the author/self-publisher has produced and expanded the audience for their cultural work using the mediating means of the tools of the crowdfunding platform and the work and donations of that audience in the division of labour of this activity.

The panel discussion Word into Art, Art on Words at Dundee Literary Festival, showed how a gallery (housing an exhibition, alongside organised events and published materials) is used as a tool in the process of writing. This panel discussion focussed on the crossovers in the processes of writing and curating contemporary art. In the activity system of curating contemporary art, the curator has the goal (object of activity) of presenting contemporary artwork and artists to the public by creating exhibitions, motivated by building reputation and regard for artists (and his/her own curating career). The art gallery space, catalogue essay and other written materials are the mediating tools for engaging audiences in the art and artists presented. The projected outcome of this activity system is the production of audiences in the on-going activity of making contemporary art. The writing practice educator on the panel carries out object-oriented activity to fulfil a need of students to learn good writing practice and skills. Exemplifying the crossovers in writing and curating activity was the use of the gallery space as a tool for providing writers with inspiration as well as presenting the artworks in the activity system just discussed, of curating contemporary art. Additional tools for the writer in residence at DCA included the written words she used to make poetry which was informed by visual work. The goal for the writer in residence at DCA was to break down some of the barriers she perceived existed for people entering the DCA. These audiences who felt comfortable going to the McManus did not feel so comfortable entering the DCA. The gallery event, Echo, was highlighted as a particularly useful tool to facilitate discussion and debates amongst audience members. The community in these activity systems of writing and curating include people doing activity with a similar projected outcome. This outcome includes the motivation to engage and build audiences for the ongoing making of contemporary art and writing. Curating activity was touched on in relation to the panel discussion at the Dundee Literary Festival. The activity of

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55 The gallery exhibition is displayed for a finite time in the gallery space and is experienced in a live way in terms of the viewer walking around the artworks. After the set amount of time, the works are taken down and dispersed to the next exhibition or back to the collector or place from which they were loaned.
curating is returned to later in this thesis, discussed in terms of gatekeeping in chapter 9.

In contrast to the previous discussion of events, the following event activity included the participation of audiences in the production of the cultural product/experience they attended. In these activity systems, the division of labour includes the audience member in the production of the cultural work/experience.

Firstly, the Small Society Lab in the activity setting of contemporary art, evidenced event activity which involved audiences who actively took part in activity of the event as it unfolded. The hack style Minimalist Games Jam involved the direct participation of members of the DCA audience (in this case Abertay University students) in the production of new games for Artcade. Drop in and Play and Code Club events were also used as part of DCA’s wider audience engagement activity (and motivations) for engaging audiences in coding activity and games development. Drop in and Play involved the participation of audience members attending an event in playing games. Similarly, Code Club involved the participation of audience members in attendance who learned how to develop and write software coding. The Twine Jam in the activity setting of publishing and literature, also involved active participation of the audience attending. The co-productive workshop had the object of activity to learn and experiment with open-source Twine software. The resulting ergodic storyline of the Twine also involved the participation of the reader. As was shown in chapter 4, the reader of the Twine makes decisions that influence the direction of the story. This interactive form of reading is interpreted in this research as a co-productive reading experience. The Twine Jam activity is similar to hacks and jams activity drawn from the context of games development. This point is explored further in chapter 8, Engaging Audiences through Play.

Events as Reflections of Transformations of Activity

Discussion has focused on the motivations behind audience engagement activity and the ways in which events expand audiences and create new relationships between audiences and cultural/sector organisations. This final section of the chapter discusses events as short-term forums, facilitating conversations, debates and reflection for the broader ongoing activity of the collective subject in attendance.
Events evidence a reflection of transformations of activity in several ways. Aspects of events which change over time signal certain transformations. Events allow for a scrutiny of activity for the collective subject involved and the wider community taking part in the same activity elsewhere. Potential new activity or activity under transformation due to external tensions e.g. digital disruption and the mix of digital and analogue technologies in the post-digital age, are also made visible and discussed at events. In terms of transformations of activity and expansive learning, Engeström’s concept of externalisation involves small changes to activity in the process of seeking solutions to external disruptions (chapter 2).

Transforming Relationships with Audiences

The enduring publishing activity of book publishers and media companies was exemplified by LBF. Historically, LBF is where publishers and agents negotiate rights deals for book titles. As was discussed at the beginning of this chapter, this is the object of activity for the majority of attendees of LBF. LBF has reflected transformations to the activity of publishing over time, depending on the social context and the period in which the activity happened. Prior to 2000 the technology areas of LBF, Tech Central digital hub and Theatre @ Tech did not exist. The subsequent growth and extension of these areas in 2015 reflect the rapid growth in digital technology developments and subsequent technology services in the publishing industry in the post-digital age. PDMC was seven years old in 2015 compared to the four decades since LBF was established. The appearance of technology sections at the fair three years prior to the initiation of PDMC shows the expansion of digital and technology related practices included in the activities of those in the publishing industry attending LBF. The relatively new Author HQ section of LBF also reflects digital disruption in the industry. As noted earlier, the Author HQ section has legitimised self-publishing activity in the larger context of publishing business activity.

By virtue of the seminar programme at LBF, emergent publishing activity of focus for the collective subject attending LBF and the wider community involved came under discussion. The PDMC revealed emergent audience engagement activity in publishing related to the implications of the mix of the digital environment with the physical environment. The collective subject of the PDMC panel discussions also showed the involvement of social media platform guests, authors and tv production
companies who presented and shared their experiences of their activity from outside of the traditional publishing industry environment. Thus, the traditional community and collective subject of audience engagement activity for publishing and literature is shown in this research to have expanded to include people from industries or sectors which were more formally separated in the past. Both PDMC and LBF events were scheduled as part of the larger set of activities under the framing of The London Book and Screen Week (13th–19th April 2015). The LBF and PDMC in conjunction with The London Book and Screen Week formed a cluster of events relating to books, film, TV and games. Attendees at the London Book and Screen Week were known to be readers, writers, gamers and fans (chapter 4), which further evidences the transformation of publishing activity incorporating members of the community of games activity. The object of activity of improved consumer engagement by the collective subject of PDMC was similar to the object of activity for Publishing Scotland, of direct-to-reader marketing and the challenge of discoverability. This common theme of improving relationships between the cultural organisation and audiences was shared between those attending PDMC and LBF. Publishers aimed to gain a collective understanding of how they could incorporate an ecosystem of digital mediums and networks into their strategies to engage audiences and to promote and sell their products.

These activities spoken of at the PDMC are envisaged as developments that relate to the tensions in the activity systems caused by the effects of digital disruption, as disruption of established processes and relationships continues to evolve patterns of ongoing publishing activity. Of particular note in crowdfunding activity, the division of labour does not include the traditional publisher. This illustrates the short-cutting of the publisher as a result of the digital disruption created by the crowdfunding activity. The author is directly engaging with the audience through the mediating means of the crowdfunding platform and social media to both encourage the active participation of the audience in the production and marketing of the resulting project.

The ‘Real’ New Publishing seminar also exemplified publishing activity that differed from traditional and historical publishing activity, prior to the shifts caused by digital technologies. TCO London and their experimental projects for Microsoft and Google demonstrated two giant digital companies, primarily involved in creating
digital content and software, commissioning printed publications for the use of communications within their respective companies. This activity emphasises the social and material context of the post-digital age. Importantly, this example illustrates the mutual use of digital and print tools towards the object of activity, primarily to connect audiences with content.

The annual LBF, and events within its framing, exemplify a publishing industry continuing to identify different challenges and opportunities for the industry that need attention. As was exemplified by the Publishing Scotland stand, the face-to-face business meetings and informal meetings are an important part of ongoing publishing activity. Just as importantly, Twitter and the Twitter feed #PDMC15 happening in tandem with the live discussions was a key part of PDMC. All the events evidence an experimental edge to the activities being described, or expansive learning happening. Although the format of discussions during events were relatively conventional (e.g. the panel discussion/lecture), incremental changes to activity in response to the post-digital situation and digital disruption were the topic of conversation. Connecting with audiences in expanded ways, and mediating cultural work using a combination of platforms—digital and physical—and a combination of mediums, was the common thread highlighted at, and by LBF in 2015. Overall, LBF activity is shown to form a microcosm of activity that reflects that of the larger publishing industry across the globe. Questions raised by the subjects of this system relate to the larger community, as do resulting innovations in working processes as a result of tackling challenges.

Transformations in Storytelling

The smaller scale literary event Dundee Literary Festival and the Twine Jam event exemplified a focus on the transformation of storytelling. Additionally, the sharing of writing processes with those of curating was exemplified by the Words into Art, Art into Words panel. Similarly, the sharing of writing with game development activity was exemplified by the Twine Jam. Panel discussion events at the Dundee Literary Festival showed a key difference to those of LBF. In particular, conceptualisations of the reader and the author in relation to the technologies and tools used to mediate the writing activity were observed.
The panel discussion Marginal Technologies: The Future of Books in a Digital Age explored the process of writing and storytelling. Essentially, the mediating tools in the activity of developing and communicating a story were under scrutiny. Considering the subject of the author in the activity system reflected by the panel discussion Marginal Technologies: The Future of Books in a Digital Age, the author works towards the object of developing/creating content (in this case fiction) motivated to increase regard for their work, amongst a community of people who are also involved in the activity of reading and writing fiction. Rules mediate the relationship between the author and the community in this activity system. As discussed in chapter 4, three examples of rules were: content should dictate the form of the mediating means for communicating, reading should retain some intimacy whatever medium is used, and the best stories invite the reader to fill in some of the blanks themselves in the reading of fiction. Thereby, in this last point, the community and the author construct the object collectively, that being the creation of a work of fiction. Furthermore, conceptualisations of the book by the wider community (as shown in chapter 4, p.103) were shown to include: books as curated spaces, puzzles or jokes. The tools mediating storytelling activity include the iPad device, the app, the printed book, the written word and images. The panel discussion exemplified the organisation of the layout and design of the text and image in the printed book created a play on the traditional structure (the printed book format) mediating the activity of writing and reading, in the communication of a story. An additional transformation to the activity of storytelling was exemplified by the author motivated to replicate the world of the novel (in terms of content) using the mediating means of the iPad. New opportunities offered by the features of the iPad (e.g. a particular form and format) for communicating a story were instigating a rethink by the author, who conceptualised new patterns of activity towards the object of communicating a story as a result. Digital disruption in the form of new technologies which as a result transform the mediating tools are shown to be generating transformations to conceptualisations of the object of activity (in this case the development and communication of fiction).

The panel event Word into Art, Art on Words at the Dundee Literary Festival had the object of activity to explore and understand the ways in which the activities associated with visual art could help someone primarily working in activities
associated with writing and vice versa. These activities were shown to have a mutual interaction across the fields of literature and visual art as well as having the outcome of the ongoing generation of audiences for contemporary art and for literature (discussed earlier in this chapter). The outcome of this panel discussion was the understanding that the creative process of writing and curating to communicate a written or visual message with audiences (gallery visitor or reader, or both) is mutually constituted with the mediating the tools (the curated exhibition, gallery catalogue or novel/printed publication). This example, in conjunction with Marginal Technologies: The Future of Books in a Digital Age, highlights the standard ways in which the mediating tools of telling a story and communicating with audiences are being questioned and scrutinised through events. The developments of digital technologies and the history of digital disruption continue to evolve. As a response it appears the events just discussed show an exploration of the implications of these developments on cultural organisations’ activities.

The Electric Bookshop events, such as the one held at the Dundee Literary Festival, generated discussion which sought out increased nuanced debate around new technologies for publishing. The seminar Marginal Technologies: The Future of Books in a Digital Age brought the opinions of the author and philosopher to bear on the future of reading and writing using new technologies. The seminar Art on Words, Words on Art created the space for discussion about the writing processes of the poet and the curator. It also explored the working processes relating to the visual arts and literature and relationships thereof. Analysis of these discussions reflects on the ways in which the community of people in the activity of mediating visual arts and literature are coming together. This is suggestive of an ongoing development of the convergence of mediums as a result of digital technologies.

The Twine Jam is a final example of an event which reflects aspects of storytelling activity (in terms of the division of labour) and hence the relationship between the author, story and reader undergoing transformation. This event organised by the Electric Bookshop, had the object of activity to explore and learn how to use the open-source software Twine. Discussed earlier in relation to the co-production of participatory audiences, this example also showed the convergence of games design and software with writers of literature. Historical activity to Twine, in the form of game-books, brought the concept of being a player in a game to the book
format. In a similar way, Twine software creates a game like experience for the reader to navigate. Although the mediating means of storytelling is under scrutiny in this activity system, the remnants of a past activity (of the game books) still remain. The Twine software is in a stage of infancy in terms of its use, with a relatively small community of people using it. However, this example highlights part of the challenge (and potential opportunities) of digital disruption in the publishing industry. To publish a Twine is relatively easy amongst the community of Twine creators and users. Authors who wish to have some autonomy from a publisher may choose Twine as a way to publish their content. More importantly, however, it could be argued that publishers can learn from this activity with regards to the mediating means of telling a story. This rather small-scale creative workshop illustrates the seeds of a potentially larger reading experience that can be offered by the use of Twine and similar types of computing software.

*Transformations in Games Development Activity*

Lastly, The Minimalist Games Jam workshop was discussed earlier in terms of the motivations to generate and expand audiences for contemporary games beyond the games/entertainment industry mainstream audiences. However, the Minimalist Games Jam activity in relation to the new donations box at DCA also showed the emergence of a potential transformation to games development activity. Analysis showed how contemporary games were published via the platform of Artcade in the contemporary arts centre. Additionally, the Minimalist Game Jam activity revealed certain aspects of games development activity undergoing transformation. The games developed for the three-dimensional object of the donation box exemplifies a divergence from historical games development activity for playing on the game consul or on the screen of a mobile device. In terms of expansive learning, this example illustrates internalisation and externalisation activity in the early stage of an expansive cycle of games design. The collective subject of the Minimalist Game Jam included novices of games design activity. They are internalised to games design activity through the training in routine games development at Abertay University. The routine activity is developing games for the flat screen of the computer or mobile device. The Minimalist Games Jam however is viewed as externalisation activity aiming to address a current challenge for games developers, namely the three-dimensional interface.
This chapter has discussed analysis addressing the question of how activity which aims to engage audiences in cultural works of literature and visual arts is understood in terms of CHAT. The discussion of the motivations behind audience engagement activity for the cultural/sector organisations in this research showed key motives including: the expansion of audiences in the digital environment; the creation of new relationships with audiences; and the creation of playful interactions with audiences. The role of events in expanding audiences was shown to be of importance in the post-digital age. The passion connected to highly engaged audiences, or ‘fan bases’ was envisaged as key in the digital environment. The transformations of activity in the context of digital disruption and thereby the transforming relationships with audiences were also shown to be reflected in event activity. Events were shown to create the opportunity amongst attendees to share new activity and reflect on current challenges in that activity, such as digital disruption and features of the post-digital age.

The object of activity in the activity systems in and across these activity settings is anchored to audiences/consumers/users, linked to new mediating tools for their use/engagement with cultural works or to potential new relationships with them. As discussed in chapter 2, the object of activity holds the collective activity together. Without an agreed upon object of activity, that activity collapses and ceases. Therefore, for cultural organisations and individuals involved, to continue their activity of audience engagement across the settings of this research in publishing, literature and visual art, they must continue to work to build relationships with audiences and expand audiences. An activity system is mutually constituted, meaning there is an implicit relationship between the audience and the cultural/sector organisation which is transformed by the mediating means (tools, rules and division of labour) amongst a larger community of similar activity. The idea of expanding audiences in the activity systems analysed is shown to be outside of the bounds of traditional marketing activity for an existing product like a book. The organisers of events mutually constitute the activity with exhibitors, speakers and attendees towards the projected outcome of developing larger audiences, some of whom will attend future events.

The events analysed reflect the complexities of engaging audiences in the broader production and consumption of contemporary art and literature and the
transformations in activity thereof. This highlights the reciprocal relationship involved in this process between mediums and between producers and consumers of literature and art. Crowdfunding in particular showed the importance of generating a community of people, essentially transformed into audiences/fan bases with a vested interest in the project, in order for the project to be produced. This community, it could be said have a closer relationship to the author (self-publisher) than the relationship between the historical view of the publisher and the reader because of this process.

Digital disruption is a key dilemma in contemporary times. Its effects continue to cause concern on the one hand and provide opportunities on the other for cultural organisations. Disruptions have transformed the activity systems of collective publishing activity. In some cases disruptions have given rise to the opportunities of learning new mediating means and adapting existing ones towards a new conception of the object of activity. Audiences are shown by the analysis in this chapter to be highly participatory in some cases and in others integral to the process of producing a cultural work. The panel discussion event includes a sharing of expertise amongst an audience, all of whom are involved in the ongoing activity and transformations of it, by collectively constructing new conceptions of their object of activity, rules or tools which mediate activity. Events discussed in this chapter also evidence features of gamification and the incorporation of gaming activity into audience engagement activity. The next chapter explores this theme in more detail and progresses with building the conceptualisation of post-digital audience engagement activity of cultural/sector organisations in and across publishing and visual arts.
8 Engaging Audiences through Play

The incorporation of gamification and play into audience engagement activity and its subsequent transformation is the focus of this chapter. As discussed in chapter 2 and the literature review, play is conceptualised by CHAT as activity which is motivated by the process rather than the end result. Gamification is the application of game design development approaches to areas of society or industry outside of games and entertainment. The incorporation of play and fun in activity is a central premise of gamification. Interactivity is required in a gamified process which is usually used as an approach to tackle a problem or explore an idea.

Findings showed an expansion of game play and games development activity from activity commonly motivated to develop games for entertainment. The activity settings evidenced game play and games development activity being incorporated into audience engagement activity in visual arts and publishing. Across the activity settings hack type events and jams, in addition to the use of games as tools for workshops and gamified apps produced in other projects, were evident.

This chapter considers the implications of the incorporation of hack activity, games design processes and games play in audience engagement activity. Analysis focusses on the transformations of audience engagement activity in terms of new relationships formed with audiences and a common projected outcome of the expansion of audiences. The gamified processes of audience engagement activity created by the apps Bookspotting and ArtHunter and the DCA Digital R&D project are discussed. The experimental and playful activities aligned closely with hacks and jams in the games community are a second aspect of this analysis. Key questions for this chapter relate to the potential expansion of long-term gaming developer activity (practice) into the activity settings of publishing and literature and visual arts. Analysis explores the potential subsequent transformations to audience engagement activity which further develops understanding of engaging audiences in the post-digital age.
Gamified Audience Engagement

Table 2 shows the elements of the Bookspotting activity system motivated by the challenges of book discovery in the digital environment. As chapter 4 showed, publishers struggle to compete online for readers’ attention. Bookspotting was developed to tackle this challenge by gamifying the book discovery process. In the socially recognised activity of reading, a goal directed action carried out by an individual is book discovery. Bookspotting is the digital option added to the tools (such as the library or bookshop) for the reader to find books. Bookspotting with GPS enabled makes book suggestions associated with the location and heritage of the user’s situation. Through the use of the title, Bookspotting, the app playfully aligns reading activity with that of trainspotting: the activity of noting down train numbers and their arrival and departure times while standing at a train station. Using Bookspotting, the action of book discovery by an individual is situated amongst other everyday actions of the app user in other activities, as an alternative to making a special visit to the bookshop or library. The additional alignment of Bookspotting with the well-known film, Trainspotting, can be viewed as an attempt to attract younger people to Scottish Literature. These younger audiences would perhaps also share a common familiarity with playing a game on a mobile device rather than picking up a book to read.

Bookspotting incorporated gamification to the design and functionality with the awareness of how apps could make Scottish content more playful. The book group readers found exploring the features of Bookspotting fun. Playful features of Bookspotting discussed in the findings chapter 4, suggested places to visit associated with fictional places, certain authors or characters of Scottish literature. Thus, Bookspotting linked fictional stories and characters in books with locations the user could visit. This playful feature was fulfilled by the app user imagining being in a certain character’s shoes, by being in the place a story was set. These examples show a playful way of thinking about the reading of books aligned with literary tourism. However, the playful aspects of ‘Who am I?’ were lost on the non-native speakers of English or Scots in the book group. The game aspect of ‘Who am I?’ provoked the user to imagine what character he/she is most like through the sliding scales.
Bookspotting was developed to expand audiences for Scottish literature in the digital situation and to continue to help innovate the publishing sector. However, the app must be downloaded first from a platform which includes a vast number of apps for games, productivity and more besides books. In the activity system of downloading apps, the community of activity is expanded to include book readers and people looking for other kinds of content. The object of activity in this system is locating apps for the mobile phone. The tools mediating this activity are Google Play or Apple platforms. A key contradiction in this activity system is that Bookspotting (the tool created to help people discover books) must first be discovered in the environment of apps for digital devices. Unless the reader/app user knows about the useful Bookspotting tool and can search for it by name in the Apple or Google Play store it is difficult to discover while browsing. Furthermore, Bookspotting did not create a feature that would enable the user to share books suggested for them with their friends and larger social network, thus limiting the potential for further audience expansion. The primary motivation for Google, to deliver information as instantly as possible, is shown by this example to be disrupting the activity of publishing companies who also deliver content. A key tension in this example is that Google and likewise Apple are necessary and complicit for the effective downloading and use of the Bookspotting app.

This example illustrates the challenge for publishers of a comparatively small nation aiming to gain exposure for Scottish book titles in an app like Bookspotting on crowded content platforms like Google and Apple. The features of Bookspotting are fun and add a different dimension to the activity of book discovery than those of browsing in the bookshop or library. However, towards the projected outcome of expanding audiences for Scottish literature, there are perhaps more steps yet to take to solve the challenge of book discovery in the digital environment.

Similarities are drawn between Bookspotting and ArtHunter in terms of the playful ways in which readers and art gallery visitors were encouraged to find their next book to read or art work to view. Gamification was incorporated in ArtHunter in two ways. The first was in the sprint development process the app developer employed. This games development process Kotikan brought to the NGS Digital

56 Google Inc. aims to provide instant delivery of information “on virtually any topic” (Page & Brin 2004).
team activity had an impact on the division of labour of their team. The second incorporation of gamification in ArtHunter was the trophy feature of the app. This turned the activity of viewing artworks into a game of collecting artworks in the app. A core motivation behind the development of ArtHunter was for the new digital tool to create an interactive experience for the gallery visitor, which it was hoped would generate a deeper understanding of certain works of art or periods of art history. The additional projected outcome for producing ArtHunter was an encouragement for repeated gallery visits by an ArtHunter user/gallery visitor. By encouraging the user to collect works in ArtHunter in a gamified way through the trophy feature, NGS aimed to motivate the visitor to navigate the galleries whilst seeking out a particular artwork. This new digital tool is considered helpful for the visitor in dealing with the enormity of the works that are on display in the galleries, (based on personal observations in the findings, chapter 5).

Features of ArtHunter correspond with those of games described in the literature review: that they are played mainly for enjoyment, they have a goal for the player and provide feedback in terms of a score or points. ArtHunter makes a game out of being in an art gallery, something people may consider as a serious or specialist cultural experience, by providing the goal of hunting down the artwork, the enjoyment of this process and the trophies rewarded as the score. The trophy rewards for collecting a full set motivate the user/visitor to return to the gallery to collect missing artworks from their digital collections. Thus, ArtHunter brought a light-hearted possibility of experiencing the galleries to the gallery visitor, through the use of the mobile device. ArtHunter also re-mediated the artworks hanging in the gallery walls of the NGS, by storing the small image in the app of the user’s mobile, which represents the original artwork hanging on the gallery wall. Therefore, additional value is also created for the user of ArtHunter, in the form of a mini-collection of major artworks held by the National Galleries in the visitor’s pocket on their mobile phone.

In terms of the framings of play and gamification, ArtHunter and Bookspotting are examples of experimentation with the process of engaging with art in the gallery and finding books. Playful activity focuses on the process itself rather than a specified outcome. These two apps showed differing degrees of playfulness
required in their use. Significantly, in terms of gamification, an enhanced level of interactivity was required through the use of these two apps.

In the activity setting of contemporary art, gamification approaches differed subtly to those of the other activity settings. The DCA Digital R&D project began with the direct application of games developer activity to the traditional artist in residence model. Lucky Frame acknowledged that an artistic approach was key to their interests in working with cultural organisations. This transformation to the conventional artist in residence model is the first example of the gamification approach taken by the project. The artist in residence model, discussed further in chapter 9, allowed for the direct application of games developer approaches. This adapted model for technologists in residence offered the games developers access to observe everyday activities in the organisation and speak with the audiences and staff in the DCA. The project lead decided that to realise the objectives for the second phase of the project would require an integrated exploration of the issues for DCA between the DCA staff and the games developers. This open-ended approach in collaboration with Lucky Frame and Denki was designed from the start to incorporate the working processes of the technologists in a collaboration with the staff team at DCA. DCA sought to directly involve the technologists in the development and design process, rather than just ask for the product to be made. The technologists were intensely involved in all aspects of the project development and gained deep insights into how the DCA organisation operated. This differed from the characteristics of the client-supplier relationships, which were documented in the other two Digital R&D projects in the findings chapters 4 and 5. Key to the DCA Digital R&D project was the emergent objectives of the project through the work of the technologists in collaboration with the DCA staff. This involvement allowed for fresh perspectives from the games designers as they investigated the DCA building and held discussions with the DCA staff in the workshops that they undertook. The games designers set about gaining an understanding of how the organisation worked and how people were interacting with the organisation.

The DCA Digital R&D project applied gamified thinking to the organisation as a whole, in terms of thinking about useful ways engaging audiences could be made more fun. The DCA Digital R&D project used the historically common artist in residence activity to host the technologists in residence. The two games
developers involved in this project were able to research and experience the 
organisation at the beginning of the project. Thus, this project approach and process 
centred on the tried and tested method of the artist in residence, which differed from 
the Digital R&D projects of the NGS and Publishing Scotland and their technology 
partners. However, there were gamified elements of this project, similar to those of 
ArtHunter and Bookspotting.

The object of activity in the activity system of the DCA Digital R&D project 
was to explore how game design and digital thinking could be integrated better into 
everyday interactions with audiences. As shown in chapter 6, improving interactions 
between the DCA organisation (staff and building) and their audiences was the main 
aim of the DCA Digital R&D project.

External factors to this activity system produce pressures for cultural and arts 
organisations who require a portion of funding from Creative Scotland (or other 
supportive public bodies) to maintain the ongoing practices of the arts organisation. 
Pressures and tensions in the activity system for DCA included increasing revenues 
through other avenues in addition to public funds and maintaining or increasing 
visitor numbers to legitimise and maintain existing and future funding. Amongst 
these pressures and perhaps the cause of another tension in the activity system for 
DCA, was the high level of competition for funding. With an arts centre like DCA 
there is a pressure to maintain and preserve a strong reputation in the community of 
contemporary arts centres nationally and internationally. This results in a 
corresponding pressure to maintain and continue to develop fun ways for people to 
interact with the organisation and its exhibitions and other programmes. DCA was 
motivated to continue to innovate the audience experience and develop new 
relationships between the DCA staff, building and their visitors.

With the development of Artcade, the process of engaging with the game 
built into it transferred the focus of interaction from the question of why support this 
arts organisation to one that provoked the visitor to see what happens when they put 
a coin in the slot. The playful and the interactive characteristics of Artcade allowed 
for an instant value exchange. This differed from the somewhat abstracted value 
exchange of the former donations box with the more obvious request for money to be 
put into the slot for the assumed greater good of the arts organisation. The materiality 
of Artcade was designed to enable and encourage playful exploration. The game
incorporated into Artcade disrupted the object of activity in the standard activity of making donations. The former transparent donations box was straightforward in terms of appearing simply as a box with a slot at the top to put money in it. This conventionally called for the visitor to know that this box is for putting money in if you want to support the activity of the organisation or what it represents. Artcade was partly inspired by the arcade game which traditionally has the object of activity of entertainment and enjoyment. Money is put in the arcade machine which allows the player to make moves in the game. The process is repeated at the end of the game if the player wins or loses. In the gamified donations box Artcade, two objects of activity are intertwined linked to broader motivations in the activity of entertainment and patronage. However, the motivation to play the game is emphasised over and above the idea that the visitor is supporting the arts. There is instant gratification in terms of what the game is giving to the visitor.

Gamification approaches across the three activity settings have been discussed, but playful processes of audience engagement were also evident in this research. The final part of this chapter discusses how games jams were incorporated into audience engagement activity.

Games Jams used to Engage Audiences

Playful and experimental areas of focus in this section are analysed in relation to the games workshops in the DCA Digital R&D project activity, Small Society Lab events, the Minimalist Games Jam and the Twine Jam. These events shared significant similarities to hacks and jams. Aspects of the ways in which play and open experimentation were incorporated into audience engagement activity are central to the analysis in this part of the chapter.

Beginning with the contemporary art activity setting, the DCA Digital R&D workshops aimed to encourage DCA staff to think differently in terms of their everyday interactions with the public. DCA staff took part collectively in playing a set of games on tablet devices. Reflection subsequent to the game playing activity posed questions about how those experiences could inform new ideas as to how the DCA could interact in a more playful way with audiences. The initial workshops were described as playful and fun sessions where staff tested out the games that were
brought by the technologists (chapter 6). In terms of CHAT, the games were the tools which mediated the activity of the workshop, in addition to the room, furniture, writing tools and language used in the workshop. Within the activity system of each workshop in the DCA Digital R&D project using the games, DCA staff members and technology developers became the collective subject working towards the collective object. The main object of activity, as noted earlier in this chapter, was to continue to innovate the audience experience. Discussions by the collective subject focussed on how games design and the playful interactions staff had with the games could benefit areas of the DCA. This fun approach to the project process is encapsulated by the gamification concept discussed in the literature review. By taking part in the workshops together, the staff and the technology developers contributed to the project development by way of co-producing the ideas, through identifying the key challenges and issues that the DCA could tackle via the development of prototype concepts.

Technology developers aimed to provide deeper understanding of the games design process and the thinking behind the interactions involved in playing a game. The playful and exploratory nature of the workshops allowed for a suspension of the traditional commission/supplier relationship. The collective subject shared their areas of expertise (DCA audiences, the DCA organisation and developing games for interactive play) in two ways. Firstly, the game play activity enabled DCA staff to gain a deeper understanding of playful interactions and how they are designed. Secondly, discussions after the game play with DCA staff enabled the technology developers to gain a deeper understanding of how playful interactions might be incorporated into prototypes for the organisation. The challenge of working with physical space, i.e. the DCA building, was causing disruptions to the activity system of games development. The resulting expansive learning the activity of games development evidenced by the Minimalist Games Jam activity was discussed in the previous chapter.

In the same activity setting the Small Society Lab activities showed a playful approach to some issues in civic life, where the participating public created prototype ideas to address the selected challenges. This playful aspect to activity in the Small Society Lab was similar to activities of the Minimalist Games Jam, the Twine Jam
and the workshops that were part of the DCA Digital R&D project. These events all shared playful elements and approaches that aimed to solve certain challenges.

As discussed in chapter 7, a shared object of activity for the collective subject involved in the DCA and Small Society Lab activity systems was to explore the possibilities for the creative mix of activities across the fields of research in the academy, art practice and technology. The motivations included the development and generation of audiences and discursive engagements for and with research, design and cultural activity. The community included people involved in other similar hack-type events. These hack activities aimed to foster and develop a co-productive relationship with the citizens of the place that the cultural organisation was situated in. Thereby, the activities developed a community of people interested in working together in co-constitutive activity with the cultural organisation on issues that affected everyone living in that place. This community had a high level of participation in the resulting cultural work, where everyone was involved in the division of labour of the activity. The workshop events were curated in terms of the guest speakers invited to help guide the participant activity (discussed in relation to gatekeeping in the next chapter), but everyone participated in the hack-type events.

The previous chapter discussed the activity systems of the Small Society Lab events. The common outcome was to develop audiences by way of opening up research and creative problem-solving using technology to communities of activity outside academic research. In these activity systems the production of cultural works was concurrent with the production of the audience. The cultural work was mediated as it was produced, rather than the traditional experience for example of viewing a finished art work on the gallery wall. The object of activity of Small Society Lab in this way differs from that of the DCA galleries. DCA gallery activity involves people working within the historically and collectively constituted activity of contemporary art exhibition making. The activity system of the Small Society Lab differs from the historical practice of mediating contemporary art, where exhibitions are created and installed (usually as the finished and complete works) in the gallery and are then presented to view for public consumption.\(^{57}\) The Small Society Lab activity poses the

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\(^{57}\) The conventions of the gallery space are also remarked on later in relation to gatekeeping activity in chapter 9 and the gallery space as a tool for mediating activity in chapter 10. O’Doherty (1991) makes a relevant discussion of the rules of contemporary art and gallery/exhibition making ideology.
potential for a new collectively constituted activity (involving the simultaneous generation and participation of audiences) pertaining to a mix of contemporary art and technology being used to creatively solve civic issues.

The Small Society Lab activity was one part of the DCA’s activity that involved experiments with technology and the production of audiences for this area of interest, of art and technology and games. Other activities were described of the Drop in and Play and Code Club workshops for young people (chapter 6). This mesh of activity that DCA was involved in aimed to develop audiences for an area of activity that is in a relatively early stage of development within the community of contemporary arts centres. Activities involving games and writing code are becoming less specialist, meaning people can get involved with less training required using tools which are more commonly available.

The Twine software used in the Twine Jam, exemplified an increasingly accessible tool which requires no specialist skills (chapter 4). In the Twine Jam activity system, the collective subject played with the software in a semi-collaborative way to explore how it could be used to write an interactive story. The community in the activity system of the Twine Jam included games developers, artists and writers. The outcome of the Twine Jam activity system was the production of the hybrid game-story and the production of an audience who shared an interest of using Twine and the potential for its use. Findings showed the fun and light-hearted experimental activity of the Twine Jam. Additionally, as discussed in chapter 7, Twine transformed the reader to a player with choices to make while navigating the story. This shifted the mechanics of storytelling activity, from one which was about the reader being told the story page by page, to one which involved the reader being faced with making a decision in order to proceed with the story. The game-like storytelling involved in Twine arguably involves an increased level of reader participation than that of reading a book. The reader of a Twine also becomes the central character in the story. Situations and consequences are built in for that central character, as a result of the decisions the reader makes while navigating the narrative. Thus, the narrative experience is more active in Twine than in the traditional novel.

The Minimalist Games Jam is the third activity system which shared playful and hack-type characteristics to those of the Small Society Lab and the Twine Jam. The Minimalist Games Jam activity had a level of interaction with the DCA Digital
R&D project activity, via the prototype outcome of that activity system, which led to the development of Artcade. In the Minimalist Games Jam activity system, the object of activity was to expand audiences for contemporary games in the DCA, by providing a platform for these games on the Artcade donations box. This activity played with an opportunity the new donations box offered, to play host to some prototype contemporary games. The donations box in the activity system for the Minimalist Games Jam became the mediating means or the interface of the game that the audience member played.

These three examples of the Minimalist Games Jam, The Twine Jam and the Small Society Lab involved one-off events, which shared characteristics with hack-type events. These types of events originated in the field of games development but were incorporated into the field of mediating contemporary art and literature. The playful approach to using technology in creative ways has been shown in these examples of activity which included the direct involvement of participants. Although these examples did not strictly involve gamified activity, they involved activities akin to hacking, adopted from the games development community activity. Hacking is shown here to have been applied within the field of contemporary arts and literature through these examples. The Twine Jam and the Small Society Lab activity systems showed the mix of games developers, artists and writers in the community of activity. The Minimalist Games Jam involved games developers in the community who were producing games software, which was then presented to a community in the context of contemporary art on a three-dimensional donations box. The donations box became a new testing ground for new kind of platform in a new situation for presenting contemporary games.

The activities of the DCA Digital R&D workshops, the Minimalist Games Jam and the Small Society Lab all encouraged audience participation and differing degrees of engagement in exploration and play of the themes curated by the DCA. The relationship between the subject and the object in these activity systems was mediated by playful use of tools in an open-ended way, which co-produced the realisation of the cultural works and the relationships between the cultural organisations and the attending audience in a highly interactive way.

Analysis has focussed on the transformations in audience engagement activity, relating to gamification and play, motivated by the object of improved
audience engagement. In the activity systems discussed, the interface, the tool that mediates the relationship between the subject and object, is shown to be under development. Additionally, the participatory audience is shown as a key component of these activity systems in terms of the division of labour. Furthermore, the hacking activities evidenced an implicit rule: that everyone participates, including the audience. A third key point with this chapter is the communities that were built as a result of these activity systems.

In the DCA Digital R&D project the game developers were able to use and share their expertise of working with the concept of the interface, which co-produced new understandings of gamified interactions in the DCA organisation. The game developers’ expertise lay with the gaming interface and how that mediates the activity of the player in a game and his/her relationship with the object of activity in that game. In this example, the interactions between audience members, the DCA building and the DCA staff were the focus of activities. The objective for DCA was to innovate the audience experience in more playful ways. The new experiences created by the new donations box included challenges for the games designers because the interface for the new games created in the Minimalist Games Jam was a three-dimensional object rather than the conventional flat screen of the mobile or desktop device. DCA brought their expertise in hosting artists in residence to the project by using this approach to host the technologists in residence. This example illustrates audience engagement activity incorporating games developers and arts organisation employees as the collective subject of the activity system. This activity shows playful investigation as a key feature of new tools mediating collective audience engagement activity in the post-digital age.

Central to games development is the player, i.e. the player is the object of activity in the activity systems of games development. This shift in perception from the reader, user or visitor to the player in the activity systems analysed lends a subtle shift to perspectives of cultural/sector organisational activity and their audience engagement activity. Additionally, gamification was shown to bring playful aspects of activity into interactions between audiences and the space of cultural engagement (be that a digital app or a physical gallery, or a mix of the two). The resulting encouragements for the audience to act and participate in a particular way as a result of gamified apps and artefacts is the common link shown in all the activity systems.
discussed. Workshop hacking activity alongside the development and use of apps were all shown to incorporate game design processes of working and gamified techniques to encourage playful experiences, which aimed to encourage people to make repeat visits to the cultural organisations of the works that they produced.

Digital research and development projects were the main context of activity in relation to the cultural/sector organisations’ activities and the data that was collected in this research. The participatory aspect of activities discussed in this chapter had the key aspect of being exploratory in nature with no pre-defined outcomes. The hacking activities detailed in this chapter also showed the ways in which various challenges were set as the object of activity for the collective subjects to work towards, with no specific pre-defined outcomes. The examples in this chapter are evidence of the various prototype ideas produced by these activities.

There is a dichotomy between the playful and fun aspects of the activity analysed in this chapter and the serious aspects residing within the context of the activity or the object of the activity itself. Hacking activities discussed in the second part of the chapter, showed how playful activities involved the participating audience members and the cultural/sector organisations working together. In the Small Society Lab activities especially, the playful activities were carried out towards creating prototype solutions for quite serious civic issues. The gamified donations box made a fun activity of the more serious issue of charity and the arts. The underlying serious aspects to the playful Twine Jam activity included the ways in which the activity system of storytelling and reading is under transformation, which transforms the relationship between the storyteller and the reader. The Twine Jam allowed for a degree of personalisation in the way the story was experienced, but more importantly the Twine Jam effectively brought hacking activity from the field of games into the field of writing and literature. The group investigation of Twine in this activity enabled a shared co-productive learning of the opportunities and challenges that the software enabled that was fun to participate in.

Bookspotting also created playful ways for people to find book titles they had not previously read. The more serious side of this challenge to the publishing industry of book discovery is the competition for books in the digital environment alongside other mediums such as games, TV and film. Bookspotting aimed to help readers to discover the traditional Scottish literature canon as well as new books in
contemporary Scottish literature. In a wealth of content to choose from, sometimes overwhelmingly so, Bookspotting was designed to help pick out titles that would appeal to the reader, based on the reader’s location or aspects of their personality in the gamified aspect of the app. Bookspotting showed how an app could hook into a tangible connection for the reader, rather than just a random selection. However, limitations were noted about the level of personalisation made available by the app. For example, the playful use of the old Scots language proved limiting for non-native Scottish users.

This chapter has detailed how playful and gamified audience engagement activity encourages certain behaviours in visitors and audiences, incorporating a mix of communities across contemporary art, literature and games development. Levels of gamified engagement and creative problem-solving activities were shown across all situated activity. The challenge of the three-dimensional interface for games developers was taken up in the Minimalist Games Jam, and the results were presented within the situated activity of the contemporary art venue. The application of games into apps for mobile devices was also incorporated into the fields of literature, publishing and contemporary art in the other examples discussed. The technologist in residence modified activity system shown in the DCA Digital R&D project is part of a growing community of practice: one which displays developments of the incorporation of technology into processes of interaction with audiences, rather than technology being applied to those processes. This has implications for audience engagement activity resulting in the expansion of audiences, which simultaneously involves the active participation of the audience in the experience (and/or artefacts) being produced.

This chapter has aimed to develop the concept of post-digital audience engagement activity by discussing gamification and play observed in the processes of the activities of the cultural/sector organisations discussed. The analysis has shown audience engagement activity undergoing transformation in each of the examples discussed in this chapter. The Small Society Lab activity showed how both the audience and the cultural works developed in a co-constitutive relationship. The deliberately open-ended hacking activity in a relaxed situation called for playful and co-creative experimentation and participation by all people attending.
This chapter has also explored the ways in which games development activities have been incorporated into audience engagement activities of cultural/sector organisations. The resulting various transformations in the relationships between members of the collective subject and the respective divisions of labour have been shown. Audience participation is key in the examples discussed, linked to the theme of gamification and the production of communities in the process of activities. The examples in this chapter have shown activities which are directed towards the discovery of new cultural and creative experiences and products. The apps and workshops became tools for discovering a greater understanding through the active participation of the audience member.

In each of the examples discussed the production of an audience coincides with the production of the cultural work or experience. The relationship between the audience and the cultural/sector organisation is closely connected in these activity systems. The implications of the activities discussed in this chapter and the previous chapter, on the role of gatekeeping commonly undertaken by cultural/sector organisations is explored in the next chapter.
9 Gatekeeping

This chapter explores features of gatekeeping activity and certain challenges thereof in relation to audience engagement activity observed in this research. Gatekeeping is regarded as an activity which moderates between open access on the one hand and restricted access on the other. Thus, gatekeeping, traditionally restricting access, is the process by which value is created by the cultural/sector organisation (traditionally the publisher). The ability to moderate the levels of scarcity and abundance is also part of this process. Rules, both implicit and explicit, mediated the relationships in the activity systems between the community, the collective subject and their object. This chapter discusses how rules shaped audience engagement activity. Rules included: copyright law and terms of use for software; tacit conventions established in the community of engaging with works in the gallery and finding books to read; funding requirements; and cultural policy. The balance between authority and openness to participatory audiences in relation to gatekeeping is also addressed in this chapter. This balance is related to new relationships produced between audience members and cultural/sector organisations in the co-constitutive activity of engaging audiences as shifts in the division of labour have become apparent. Expertise and curating activity are linked to the production of reputation, brand, authority and trust for the cultural/sector organisation. The ways in which the participation of audience members affect these aspects of cultural/sector organisations are also discussed. The chapter concludes with the idea of post-digital gatekeeping and proposes the ways in which this concept is linked to post-digital audience engagement activity.

Tacit and Explicit Conventions: Gatekeeping Rules

As explained in chapter 2, the rules (tacit or explicit) determine and guide activity conducted by the subject by virtue of historical conventions or acceptable ways of doing an activity within the broader community. In this way rules mediate the relationship between the subject and the community of an activity. The rules by which cultural/sector organisations’ activities were regulated included: cultural policy, organisational policies and funding agreements; copyright; and the conventions of engaging with a cultural work. Rules and conventions, both implicit
and explicit, change as the context of activity changes. For relatively newer activities
the conventions are under development in a mutually constituted relationship
between the subject and community as their perception of the object of activity
develops with new tools (like those examined in this research). The challenge of
discuss discoverability (discussed in chapter 4) exemplifies the conventions of engagement
with literature in the digital environment currently under scrutiny. This challenge for
publishers prompted some of the transformations of audience engagement activity in
literature. For NGS and DCA, continued pressures of funding and expanding
audiences prompted transformations to their audience engagement activity.

The first encounter this research had with experiments to expand upon
audience reach or deepen the relationship with audiences were the Digital R&D
projects. The three Digital R&D projects that Publishing Scotland, DCA and NGS
took part in involved working with the rules of the Digital R&D Fund Scotland. The
Digital R&D Fund Scotland had timing limitations for the project activity. Funds
were restricted for use in R&D activity exclusively. The funding was not permitted
for marketing activities and publicity. This had a limiting factor on the potential
expansion of audiences for each of the Digital R&D projects. The emphasis with this
fund was placed on the research and development activities. However, as was
discussed in chapter 7, this project was motivated towards the expansion of
audiences for the cultural/sector organisations as well as the production of innovative
means to engage audiences. The contradiction in terms of the use of the funds for the
Digital R&D project activity system therefore limited the scope of the R&D activity
for potential expanded audiences. The rules of the Digital R&D Fund, which
involved the partner organisations in the collective subject, made this collective
subject a gatekeeper at this moment, in terms of the restriction of funds to solely
research and development activity purposes.

The NGS Digital R&D project activity had to overcome issues around
updates to the mobile phone policy across the organisation allowing for the
legitimate and ubiquitous use of mobiles in the galleries. For updates to ArtHunter,
NGS created a set of rules for external gallery curators wanting to include their
works in the app. These rules included a set of conventions around the details of the
work, the format that information took and copyright permissions. For the updates to
ArtHunter NGS remained in control of organising the content from the other
galleries and organisations. In this way NGS retained a gatekeeping role for the content of the ArtHunter app. The rules of the mobile phone policy and the organisation/format of the information from other galleries for the update to the ArtHunter app were parts of gatekeeping activity that NGS were undertaking. These were as part of the flow of the terms of access to the cultural works they presented, either through the galleries in the building or on the platform of the mobile device.

ArtHunter provided an extra avenue for audience members to view artworks on their mobile phone at other times of the day or night when the gallery was closed. Thus, in addition to forging the new mobile policy in the NGS, the ArtHunter project outcome was an extension of the hours and access points to artworks beyond the opening hours and location of the NGS venues. ArtHunter essentially expanded the rules of accessibility for the cultural works residing in NGS in the presentation of them via the platform of the mobile device.

Artcasting also required mobile phone use in the galleries. This project detailed in chapter 5 was associated with the Artist Rooms collection. Terms to the Artist Rooms and NGS partnership agreement provided guiding principles for the moderation of the content curated for Artist Rooms exhibitions and audience engagement. For Artist Rooms funding to continue these terms had to be followed, which had implications for the kind of exhibitions that were programmed and the ways in which Artist Rooms carried out audience engagement activity. These terms formed the relationship between the community of activity and the subject, in this case NGS and their partners, along with the tools and the division of labour towards their activities of audience engagement. The terms of the fund had a mutual relationship with the cultural content selected for exhibition and thus had a bearing on the gatekeeping activity of Artist Rooms in the NGS.

A portion of the activities of the curator of engagement were linked to the Artist Rooms partnership (via the Artcasting project for example). The audience engagement activity, that the curator of engagement carried out was also subject to conventions of existing and established audience engagement activity. Figures 29–32 illustrated the developments of the Resource Room in the Scottish National Gallery of Modern Art 1 (chapter 5). The emphasis on social media tools to encourage a participatory audience was shown in this example. Interestingly, the tools used in the gallery space to encourage and communicate with audiences the ways in which they
could participate digitally retained the traditional/historical conventions of audience communication, namely vinyl lettering for gallery signage.

The project activity of Studio of Objects involved the rules of the Digital R&D Fund England. Terms of access to the Paolozzi studio also needed to be discussed and agreed with the NGS, as the gatekeepers and caretakers of the Paolozzi studio and the works inside it on display. The Studio of Objects app became a potential avenue for people to experience a virtual version of the Paolozzi studio, housed in the NGS, but accessible from any iPad across the globe with access to the app. At the time of writing this app was not published, but the producers of this app are regarded as secondary gatekeepers for digital access to these works in the studio. The launch event in London of the app showed how the Paolozzi studio and works were re-contextualised by the app makers in the iPad (chapter 5). The works were taken out of the context of the NGS situation and the conventions of engaging with works in a gallery setting that went with it. This de-contextualisation is a characteristic of both this Studio of Objects app and ArtHunter, which is discussed at the end of this chapter in relation to the proposed concept of post-digital gatekeeping.

The conventions of audience engagement in the setting of the contemporary art centre were under scrutiny in the Digital R&D project activity of DCA. DCA aimed to gamify the contemporary art centre, by looking at the ways in which everyday transactions and interactions between staff and audiences could be made more playful (chapter 6). The convention of the artist in residence approach used by DCA is an established mode of engagement between artists and art organisations often linked to audience engagement activity of an organisation. This adaptation of the artist in residence to the technologist in residence at the DCA involved technologists being able to speak with the public and DCA audiences. In the workshops that took place during the DCA Digital R&D project, the conventions of workshop activity were largely followed. The DCA staff members participated in the workshops as audience members. The games developers were acknowledged as the experts of games design and game play. The staff members (the audience in this example) workshoped with the games developers on important challenges to the organisation that could be explored by the games developers approach. The conventions of engaging with a donations box were also adapted in the new donations box Artcade. Artcade changed the engagement the visitor had with making
a donation to an arts organisation. Through the Minimalist Games Jam the donations box became a new way to present contemporary games. In this way the activities of DCA as a gatekeeper of contemporary art, via the act of selecting which artists are represented (or published) via their galleries, was extended to incorporate the publication of contemporary games. The gatekeeping activity of DCA showed a playful exploration of the possibilities for expanding conventional audience engagement activity towards encouragement of increased participatory audiences. It also showed that DCA were attempting to expand the cultural content they selected and presented into a relatively new area of contemporary games development.

Audience engagement activity in the field of literature, such as the events of LBF 2015 and Dundee Literary Festival, showed how conventions of panel discussions had a bearing on gatekeeping. In the panel discussions the chair person on the panel usually directed the conversation to keep it on topic. The invited panel speakers were acknowledged by the community as having the right level of expertise and experience to comment on the topic. The programming of these speakers was a selection (related to the activity of curation discussed later in this chapter) and also part of the activity of gatekeeping. The chair person also took on a gatekeeping role when selecting which member of the audience could ask their question. Conventions were also observed at the Publishing Scotland stand at LBF 2015 (chapter 4). Publishing Scotland employees at the stand played a gatekeeping role for the publishers at the stand. As shown in the findings, visitors to the stand without a scheduled meeting with a publisher would be asked to leave a message or to leave a card. Thus, the conventions of scheduled meetings at LBF is moderated in this example. This rather subtle convention (rule) in the activity system of LBF stand activity none the less shapes the relationship between the subject and the wider community of activity as they collectively work towards their common object of continued publishing business/research and growth of networks. These examples of gatekeeping are subtle compared to the concepts of gatekeeping associated with activity of publishers and agents discussed in the literature review (chapter 1, p.42). However, these subtle rules are seen here to be implicit in gatekeeping activity which in turn shapes audience engagement activity in this research.

In addition to tacit conventions of activity just discussed, which mediated the relationship between the subject and the community, copyright featured as a major
rule in activity systems. Copyright law creates domains of ownership via the rights that a publisher holds to copy and distribute a cultural work on behalf of the author. The buying and selling of rights to copy and publish works lies at the heart of the publishing business for the object of making profit. Copyright law also regulates the balance of what the reader or consumer of a work can legally do with a cultural work in terms of use and re-use, copying or appropriating of material. Thus, copyright defines the limitations that the author of the content can impose on the reader. Similarly, for digital publications and specifically software there are terms of use which govern the ways in which the software can be used once downloaded to a device.

In the activity of LBF 2015 the rules included copyright regulations for the rights sales that happened at the fair, which allowed publishers to expand their audiences in new rights territories and translations. The self-publishing activity showed the implications crowdfunding activity had for the established gatekeeping activities of publishers. This example, discussed in chapter 7, showed how crowdfunding could disrupt established gatekeeping activity when authors self-publish. The Author HQ panel event on crowdfunding showed how traditional forms of gatekeeping were being challenged through the crowdfunding possibilities that were in theory open to everyone. Crowdfunding was proclaimed as an empowering tool for authors negating the need for the publisher (chapter 4). However, the crowdfunding panel discussion at LBF showed how in practical terms, 30% of the total support was required from friends or family before a project could expect to be successful. This rule of thumb exposed a hidden layer of gatekeeping which resided with the audience, in the otherwise openly accessible context of crowdfunding platforms. Crowdfunding may have removed the traditional publishing house as a gatekeeper to the proposed publishing project of an author. However, the crowdfunding platform along with the would-be audiences for the proposed publishing project became the gatekeepers. In this example the audience members became the gatekeepers to the project. LBF shows here how copyright rules shape and form the activity of the publishers and the extent to which the domain for cultural works can be expanded upon which produces and expands audiences further. This shaping of the gatekeeping activity is shown through the crowdfunding example
to have shifted to the position of the audience which makes for increased complexity to the role of gatekeeping in the post-digital age, discussed at the end of this chapter.

Both projects that produced ArtHunter and Bookspotting encountered copyright issues. The Bookspotting production process had limitations relating to the use of certain characters in the app (chapter 4). The time and budget restraints of the Digital R&D Fund meant that permissions could not be sought for these plans and the editors had to resort to the selection of characters from before the last seventy years, where copyright did not apply. Copyright concerns for the ArtHunter app in the early stages of the project related to the mobile and photography policy of the NGS, which were ultimately changed to allow for the use of ArtHunter across NGS. In other areas of image use copyright complexities were also highlighted depending on whether content was published online or at a designated screen in the gallery building (chapter 5). The Artcasting project, which used images of artworks in the Artist Rooms collections, had to ensure images were blurred out while the user of the app was accessing Artcasting outside of the NGS venue buildings (chapter 5). The complexities of copyright law in relation to the mix of digital and physical locations and publications of content discussed here showed the time-consuming processes that were involved as a result. These examples show how the gatekeepers were subjected to the gatekeeping rules and terms under how a cultural work could be accessed and viewed, and under which circumstances. For digital research and development work, such as Bookspotting, ArtHunter and Artcasting, copyright rules were complex and had implications on the end results for the user experience. In essence the copyright rules, added to other rules in the activity systems, shaped the extent to which images could be viewed or not in Artcasting and the choice of characters that could be used in Bookspotting.

Lastly, in relation to copyright law, were the terms of use and the processes of getting an app published on Google Play and Apple App Store. These processes involved the review of the apps subject to the rules of the technology companies Apple and Google, outlined in the developer program policies and the developer distribution agreement for example.58 In this sense the traditional gatekeepers of the

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58 Both Apple and Google provide publicly available information for developers of apps wishing to publish apps on their platforms. Google provides information about their rules relating to: Restricted content; Impersonation and IP; Privacy, Security and Deception; Monetization and Ads; Store Listing
national collection of art and the publisher were subjected to the online gatekeepers’ rules for their respective digital ecosystems. In relation to terms of use and the digital platform, mobile devices also have a part to play in gatekeeping activity. Some apps are only published in one platform. For example, Artcasting was only made available for iPhone, which excluded users of Android operating system mobile phones from accessing the app. In the group interview for the Bookspotting app, it was noted that over half of the participants did not own a smartphone. This also illustrates the restriction of access to certain digital content based on the kind of mobile devices which are owned, if they are owned at all. The terms of use of Google and Apple for publishing an app show here how the traditional gatekeepers are subject to two major gatekeepers of the online environment. Furthermore, the kind of mobile device that a person owns also shapes the level of access which acts as an additional gatekeeping factor to certain content.

In the example of Bookspotting, Spot Specific owned the coding for the runtime engine, which took data loaded into it and generated data in a form suitable for both Android and Apple mobile devices. Spot Specific coding incorporated open source web technology with Spot Specific owned coding, which generated the way that the app functioned and looked on the screen of the mobile device. Spot Specific held the responsibility for the publication of Bookspotting via the Apple App Store and Promotion; Spam and Minimum Functionality; Other Programs and Families and COPPA (Google 2018). 59 In 2014, Apple, Google and Amazon were thought to be approaching “the size of publishing as a whole” in terms of their scale comparative to a single publisher. The real risk mentioned at this time was for these big three companies to be determining access to a vast portion of content on the internet (O’Leary 2014, pp.315–316). Schnittman (2008) explores the marketing opportunities and corresponding difficulties of online searchability of book content. Google Book Search, Google Library, Google Scholar and Google Print are all Google initiatives to place content online in a searchable way for various uses. Google Book Search (GBS) is a useful marketing tool which enables publishers to index titles and their contents for internet search engines. Thus, GBS enables the discovery of titles online outside of an online retailer platform. Store specific versions of this function include Amazon’s Search Inside for example. However, questions have arisen as to who discerns the price of the content should the reader decide they wish to buy it, and on what terms should access to content be given, e.g. subscription model of time limited access (Schnittman 2008). Google Library was the initiative by Google which set out in 2004 to scan and upload all books to the internet. This rather unsurprisingly met with litigation from the Authors Guild for copyright infringement (Owen 2013). This example in particular keenly illustrates the tensions and complexities between traditional publishers and Google over the gatekeeping of content online. Most recently, Netflix, Spotify and Epic Games are companies who have opted to bypass Google and Apple by suspending the payment of and access to their services via Google Play and Apple and direct users instead to do so on their own websites. Existing users of Netflix can however still opt to continue to pay their subscription through iTunes. Apple generates 30% revenue share of app subscriptions in the first year and 15% thereafter (NZ Herald 2019).
and Google Play. This meant that the technology developer Spot Specific became an intermediary in the publishing process for the app within the digital ecosystems owned and governed by Apple and Google rules.

In contrast, the open source software Twine is freely accessible. Twine has no gatekeeping in the form of ownership, and restrictions to access. The Twine Jam showed a community of people who use Twine to publish their work online. Openly accessible forums were also created by this community which showcased and discussed various aspects of Twine software. The Twine Jam workshop was predominantly for people wishing to test out ideas with a new freely available software. A certain freedom of control for the producer of the Twine software in getting the product published is not present to the same degree for the producers of Bookspotting or other apps subject to Apple and Google terms.

Cultural Policy is the last element of rules in activity systems which had implications for gatekeeping activity of cultural/sector organisations. Each organisation in this research had, and continues to have, relationships with funders and hence cultural policy. As shown by the findings chapters, The Scottish Government, either directly or indirectly via Creative Scotland, funds each of the central cultural/sector organisations in this research. The responsibilities (either tacit or explicit in terms of rules) for each cultural/sector organisation to support, preserve and promote respective cultural activity in literature and the arts is thus shaped in a mutually constituting relationship between government, the cultural/sector organisations and public consultation. In terms of gatekeeping, cultural policy directs and moderates the activities of the organisations to an extent by the practicalities

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60 O’Brien (2014, pp.17–50) sets out the historical context for cultural policy, of modernity, the individual and governance. British cultural policy has its origins with the pursuit of creative excellence. The Arts Council England was set up with this core requisite. The co-constitutive relationship between cultural policy development and industrial/cultural change is discussed by Hesmondhalgh and Pratt (2005). Cultural policy is deeply intertwined with a history of arts and heritage policy and developments of the relatively new creative industries. UNESCO initiated a study on the industrial aspects of culture and the potential development that could be achieved through economic advantages c.1980. At a similar time, The Greater London Council’s cultural industries policies were beginning to emerge. However, the Conservative government of 1986 dissolved the implementation of those policies. The concept of “the cultural quarter” was first established in Sheffield by the Department of Employment and Economic Development. This local economic policy rather than cultural policy was rare at the time, but history has shown a rise in the use of local cultural quarters throughout other UK cities “linked to urban regeneration” in the 1990s which remains popular in the 2000s (Hesmondhalgh and Pratt, 2005, pp. 2-5).
involved with the amount of funds available and the constraints of the rules of those funds. Finite resources reflect the choices that must be made, for example by Creative Scotland, who have to take an overview of who to fund and make judgements about which activities are most deserving. A similar gatekeeping process is made with regards to the selection of artists promoted by the DCA for example, or the ways in which the support activities in literature are crafted by Publishing Scotland.

These examples of tacit often implicit conventions, but also the explicit rules in the activity systems highlight in various ways how cultural/sector organisations activity is moderated in a relationship between the larger community of cultural/sector organisational activity and the audiences they produce. These rules of engagement moderate between what is possible for the cultural/sector organisations as a gatekeeper to achieve in a reciprocal relationship with audiences. These rules vary in scale, such as the large-scale rules for access to funding and the requirements of those funding organisations to meet the policies of the organisation and government. At the smaller scale however, are the tacit rules of the conventions relating to how people feel they should behave with a mobile phone in the gallery, or how people feel they should conduct themselves on a panel or in the audience of a seminar. As has been established, Publishing Scotland, DCA and NGS have been given a status of importance by the Scottish Government. This is evidenced by the regular funding endowed to Publishing Scotland and DCA via Creative Scotland and the direct funding endowed to NGS. This status comes with an authority in the field of expertise and quality of activities as gatekeepers of visual arts and literature. The ways in which this authority must be balanced with an openness for the participation of audience members places traditional gatekeeping practice under question in terms of the mix of digital and analogue tools and activities that were created to engage audiences.

The Balance of Authority and Openness to Participatory Audiences

Digitally mediated audience engagement activity in this research demonstrates a shift from the authoritative one-directional voice of the cultural/sector organisation to an increasingly co-constitutive activity. This activity involves increased participation from audience members which also accommodates personalised audience
interpretations and options. Levels of reputation and authority depend to a degree on the positioning of the cultural/sector organisation in terms of funding and status in the community. Linked to this is the aspect of trust placed in the organisations to carry out the activities they are responsible for from the funder. The cultural/sector organisation must then foster a level of trust from their audiences and the public, in terms of the quality and standard of the cultural work they can expect to see. Expertise is tied in to these aspects of trust, reputation and authority.

On behalf of the nation, The NGS was established as the gatekeeper and caretaker for the national collection of art in Scotland. NGS moderates access to artworks via the opening hours of their venues and the exhibitions of works on display. NGS also takes care of works in preservation activity. The NGS encourage the public to view the collections in addition to providing access to them for research projects. As shown in chapter 5, the NGS corporate plan 2014–2018 placed an emphasis on transforming their relationship with the public. This showed the position from which the NGS had been working towards their object of activity: to not only encourage the public to view the exhibitions and the collections but to change the nature of the relationship between the galleries and the public. This statement alluded to the idea that this new relationship strived for the public to acknowledge that the collections are jointly shared and owned by the nation and that they are there to be made use of. This could mean that a greater level of participation and responsibility was being placed on the audience and gallery visitor. Or, at the very least the nature and level of gatekeeping, in terms of accessibility to the collections, was under the process of being transformed. This transformation, as was stated in chapter 5, included seeking to improve digital tools and activities with audiences that met their new wants and needs. Existing tools for engaging audiences with the collections included printed publications in the form of exhibition interpretation leaflets, books and catalogues made available in the Resource Rooms and educational talks, tours and workshops. Additionally, the national collections activity setting evidenced a balance that was strived for between the authority of the organisation and a mode of conversation with audiences, shown to be mediated by the different types of content and new levels of participation.

Credibility was also spoken about in the setting of activity of contemporary art. As shown in activity setting three (chapter 6), the credibility of DCA continued
to be of key importance during their project of developing prototype concepts for audience engagement. The balance between the levels to which the public are knowledgeable about the work on display and how subsequent audience engagement activity would address these levels in the DCA was evidenced in this activity setting.

Linked to credibility is the brand that is communicated with audiences of the cultural/sector organisation, and also of authors and artists. As discussed in the literature review, branding is a key component of marketing activity for cultural organisations and the production and consumption of cultural works in the creative industries. In activity setting one (chapter 4), branding was shown to have increased importance for how publishers and authors engage with their audiences/readers. Having distinction as a brand was also evidenced in the data for games developers. Lucky Frame had a particular approach to making games that was different to the mainstream games developers producing games for Microsoft Xbox or Sony PlayStation for example. As discussed in chapter 6, Lucky Frame employed a unique approach to interactive creativity. Music was central to their game development activity. In activity settings of contemporary art and literature, findings also showed that authors and artists have particular followings and brands. The subtle shift in the language used by curators was noted, that they spoke of showing the artist Navid Nuur, for example, rather than showing the works by Navid Nuur. These examples show the way in which the cultural organisation envisaged its brand has a relationship with the way in which employees of the organisation generated audiences and communicated with them. The argument can then be made that the branding of each of the key organisations in this research has a relationship with the ways in which they chose to develop their audience engagement activity. This has a bearing on the balance of authority and openness to participatory audiences and an implication for the cultural/sector organisations’ roles as gatekeepers.

For DCA, the brand is reflected through their activity to support and showcase the best of contemporary art, film and print that they present. DCA were keen to innovate the mechanisms by which they mediated the cultural work they presented. The Digital R&D project was the most innovative in terms of the open-ended approach and the technologist in residence model they took. The public were invited to participate in the resulting prototypes that were developed, but a strong element of curatorial control remained. For example, a small selection out of all the prototype
games developed at the Minimalist Games Jam was made by DCA for their publication on the new donations box Artcade. In the Small Society Lab activities, curatorial control was still placed on the activities by way of the selection of a project-lead for each workshop. Additionally, the workshops were programmed into topic areas the organisers selected.

The NGS had the brand to uphold of being the caretakers of the national collections on behalf of the nation. This was conveyed in the content of the ArtHunter app, which provided the essential and significant authorial, historical and material information about each art work.

The branding of Bookspotting however was more removed from the brands of Publishing Scotland, Spot Specific and Saraband. Although Saraband were building a strong reputation for publishing apps, this was somewhat separated from the branding of Bookspotting. In self-publishing activity, crowdfunding was said to “empower” authors to become their own publisher (chapter 4). But crowdfunding platforms themselves must need a brand to create authority and trust from the authors or artists they want to work with. Also, in what ways do the audience of crowdfunding projects have an authority on the cultural work being proposed? How does this differ from what the publisher can offer? 61 Expertise is linked to the concepts of reputation and brand, authority and trust. There is arguably less expertise in the audiences generated in the process of crowdfunding projects who are the gatekeepers for these projects, than the publishers who traditionally hold this position. Similarly, the workshop activity where everyone participates has implications for the balance of authority. In the hack type events discussed in earlier chapters, this convention that the audience participate in the activity has implications for gatekeeping, especially in relation to authority, brand and trust.

Branding has been discussed here in terms of the authority and trust that the brand enshrines for audiences of the respective cultural/sector organisation, artist or author. A key part of gallery and publisher activity involves the act of selection and rejection out of an abundance of cultural work, authors and artists. The ways in

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61 These questions were not directly asked by this research, but what has been noted is that authors wishing to succeed at getting crowdfunding for their project need to have a strong following. Even with this the success rate in 2014 was a lowly 28% for publishing projects (Reid 2015).
which curating relates to the brand of the cultural organisation and ultimately in relation to the role of gatekeeping is discussed in the next section of this chapter.

**Curating**

Curating activity, discussed in the literature review, is part of the mesh of activities undertaken by cultural organisations in fields of visual arts and literature. A potential expansion of curatorial activity has been observed in this research, in the context of audience engagement and modes of interaction with audiences. The concept of curation used in this thesis is in terms of programming of events and the selection and foregrounding of certain works from an abundance. It is linked to authority, brand and trust.

In the activity setting of contemporary art, the gallery presented a series of curated exhibitions, in the same way that the cinema curated the programme of films that were shown. The Small Society Lab events were curated in terms of the topics selected for investigation. Games were also curated for Artcade in terms of the selection of games from those made during the Minimalist Games Jam for presentation on the new donations box. In the setting of publishing and literature, editorial curation of the lists of books that publishers have published shares similarities with the curation activity of galleries. Curation of books was observed for the Bookspotting App and the Books from Scotland website. The Books from Scotland website was shown to transition from a site which contained a vast volume of books to one which focussed on different themes every month. A selection of books and articles relating to each topic were then highlighted. The Bookspotting app was also curated in terms of the books chosen to be highlighted by the app. This curating activity was aligned to the type of activity undertaken by booksellers, who curate by selecting which books they want to stock for sale. Curation was also involved in devising the programme of events for Dundee Literary Festival, LBF and Electric Bookshop. In the setting of national collections, exhibitions were curated by art historians and curators of modern and contemporary art. ArtHunter involved curation of the content of the app, in terms of which artworks seemed most important to highlight. The modes of audience engagement were also most recently shown to be under curation, by the Curator of Audience Engagement.
The expertise involved in each of the settings of activity for the curation of cultural works for the gallery to show for example, or for the publisher to work with, is specific to each particular context. However, the data in this research showed that curation as an activity has become increasingly crucial and integral for audience engagement activity. As the abundance of potential ways for audiences to engage with cultural works has increased in the digital environment, so too has the importance for cultural/sector organisations to curate these audience engagement pathways.

Characteristics of the curatorial programme of DCA, (chapter 6, pp.140–141) illustrated the balance DCA strived for in 2013 between being critically curatorial-led in terms of their exhibition programme and the mechanisms by which challenging work could be related to by the visiting audiences. This relationship between audiences and the curatorial side of the DCA activity in the galleries was a complex balance of authority in the field of contemporary art and openness to the ways in which that work presented was received. The three kinds of DCA audiences described in the findings: the visitor with no prior knowledge of the artists or exhibition; the visitor knowledgeable in contemporary art—highly informed/engaged and; the visitor who wished to enjoy being in the DCA without feeling patronised (chapter 6, p.140) evidenced the complexity of gatekeeping activity in the context of contemporary art, at a level that was based on access to the cultural works in terms of the understanding audience members had of contemporary art and their associated levels of knowledge or expertise. The curation of the different tools and methods on offer by the DCA to help an audience member to relate to an exhibition was a mutually constituted relationship. This relationship involved the levels of expertise or knowledge that the audience member brought along with the tools that they chose to use, offered by the DCA to assist them with their visit to the gallery. This example in the DCA brought an understanding to gatekeeping activity that could be as subtle as involving the tools by which the activity of experiencing contemporary is mediated in a mutual relationship with the audience member and the knowledge that they embody in their gallery going activity.

Part of the brand of DCA included innovative ways to engage with their audiences. This was not confined to the gallery experience. The selection of games made from those created during the Minimalist Games Jam for Artcade is interesting
in relation to the three audience types described that visited the DCA. The playful elements of the new donations box were discussed in chapter 8, but curating activity was also shown by this critical selection of games for presentation/publication via Artcade. Institutionally, DCA demonstrated that they included contemporary games in the context of contemporary art. They chose to foreground games in the contemporary art centre, which was an act of gatekeeping that was quite unusual for a contemporary art centre. But this activity of the new donations box, brought in a new mode of engagement for DCA’s audiences. The donations box was one tool out of a selection of audience engagement tools for different relationships with different audiences, which the DCA chose to provide. These tools in terms of activity theory mediate the relationship between the public and the DCA in the activity system of DCA audience engagement. How these tools were curated has an implication for the ways in which the DCA as a gatekeeper can be understood, which elucidates a clearer understanding of gatekeeping.

Curating activity has become key in terms of gatekeeping. The selection and grouping together of different content and tools in the digital and physical environment that audiences can engage with is shown here to be of importance. Out of the abundance of content produced by cultural/sector organisations and audiences on Twitter, Instagram, Tumblr, WordPress, Facebook and websites and blogs, this research showed that curation of this content has also become increasingly important for the role of gatekeeping and the continued importance of the authority of the cultural/sector organisations in their respective fields. Curating activity however is not confined to the cultural/sector organisation. Each audience member of cultural/sector organisations undertakes his/her own curating activity on a personal level. The apps that a person selects for download to their phone are selected from an abundance. The mobile device has a finite amount of space available and so frequently apps are deleted which are no longer of use for example or are no longer relevant to the user’s interests. This leads us back to the problem of discoverability and the increased importance of curation and branding for cultural/sector organisations, as the average user of cultural content and apps will often select the most popular app or most reviewed app to download. The prominence to discovery often comes with how well known the brand is. This is tied to the resources of the
brand but also how well this brand has been communicated in the online environment.

The delicate balance between building a brand along with maintaining a strong reputation as a cultural organisation and remaining open to experimental digital projects is shown across the activity settings. However, this openness to experimentation for digital projects, which may include participatory audiences and potentially direct conversations with audiences, was noted as important for cultural organisations developing new digital content strategies and means of engaging audiences.

Post-Digital Gatekeeping

To conclude, the conceptualisation of post-digital gatekeeping is proposed as a core aspect of post-digital audience engagement activity. As discussed in the literature review, post-digital refers to current contradictory situations after the emergence of revolutionising digital technologies. Features of this post-digital age include a focus on the material and temporal experiences of cultural production and consumption, the use of networks and analogue technologies, and DIY agency. DIY agency is said to be in a degree of tension to traditional corporate structures.

This chapter has discussed the gatekeeping roles of project funders, cultural policy, and audiences for cultural works not yet made. Google and Apple were shown as major gatekeepers in the digital environment to the publication of apps. Subtle and tacit conventions of chair persons at panel discussions and employees at LBF stands were also shown to undertake gatekeeping activity. These examples show the expansion of gatekeeping activity formerly and traditionally undertaken by publishers, art galleries, agents and bookshops.

In terms of post-digital gatekeeping, the crowdfunding example demonstrates the use of networks and DIY agency involved for authors wishing to self-publish. Crowdfunding platforms discussed in the literature review showed the developing nature of this area for publishing activity with different models under use e.g. those of Pentian and Unbound compared to Kickstarter. However, the extent to which crowdfunding has the potential to democratise the gatekeeping role from the traditional publisher and the editor to the wider public can be viewed as post-digital
gatekeeping activity. The experience of the audience members pledging support for their chosen cultural work shows their involvement in the cultural production and consumption of the work. This is an additional reflection of the post-digital referred to above.

The example of the open source software Twine and the Twine Jam also reflects the DIY agency involved in creating and publishing game-like narratives. The freely available and relatively less regulated Twine software and community is set up in contrast to the commercial and corporate companies of Google and Apple.

The participatory nature of audiences with the cultural organisations in this research also reflects post-digital gatekeeping situations. For NGS the mobile policy had to be changed to allow people to use their phones (in particular ArtHunter) while participating in viewing the artworks in the gallery. The unofficial network of galleries across Scotland were also encouraged to join a growing network of galleries who use ArtHunter to showcase works in their collections. The use of ArtHunter for visitors enables an extension of the gallery hours via their mobile device. Visitors can view artworks after leaving the gallery from wherever they are located.

The de-contextualisation of artworks enabled by the digital content on the mobile phone is apparent across the apps of ArtHunter, Bookspotting, Artcasting and Studio of Objects. The application of digital and analogue technologies incorporating the experience of material spaces with app use reflects post-digital gatekeeping activity of the cultural organisations involved.

Post-digital gatekeeping is thus conceptualised as activity which is motivated to create a balance between the need to maintain necessary authorial and curatorial reputation as a cultural organisation, while also having a degree of openness to participatory audiences involved in often simultaneous experiences of cultural production and consumption.
Instruments of Audience Engagement

Live events, the incorporation of games and gamification and the concept of post-digital gatekeeping proposed in the last chapter have developed an understanding of post-digital audience engagement activity in and across publishing and visual arts. The implications of hybrid use of technology (e.g. different mediums and formats across activity settings) is the final significant theme to be addressed as part of the conceptualisation of post-digital audience engagement activity. The material or symbolic tools/instruments mediate activity of the collective subject as they work towards their collective object of activity. The tool embodies the history of activity and meanings attributed to it from communities of activity (chapter 2). An instrument connotes the concept of intentionality behind its use in action, which is a crucial element behind the object of activity, linked to motivations and the outcome. The term instrument is used interchangeably in this chapter with the term tool, but instrument is used where the non-material or more complex notion of the hand-held tool is required. The material form of tools and cultural works related to the immaterial, symbolic and tacit qualities of audience engagement activity in the findings of each activity setting are discussed. Furthermore, the transformations of the mediating tools of activity are explored in terms of the embodied historical meanings which are attributed to them by communities of that activity. Discussion of the analysis in the final part of the chapter explores how the transformation of tools subsequently transforms the cultural experience.

Mediating Instruments: Materiality and Permanence

Materiality and permanence are significant aspects of audience engagement activity in the post-digital age, as physical and digital or virtual tools are combined and used in developed ways by audiences and cultural organisations. Across the activity settings in this research (tables 2–4), the instruments (symbolic and material/digital) which mediated audience engagement activity included: app software; mobile devices (including laptops and tablet devices); journalism (art criticism and business/trade journals); architectural space e.g. University owned buildings, conference venues, the contemporary arts centre and NGS venues; seating and furnishing, presenting materials etc.; games; prototype concepts under development;
websites; Google and Apple Platforms; artworks (originals), representations of artworks (photographs); Twine software; printed information in leaflets, catalogues and books; and workshops (which are technically other activity systems used as tools in larger activity systems).

Architectural situations for activity in the visual arts provided the common physical setting and tool for engaging audiences in national collections of art and contemporary art. Architecture, the material and aesthetic constructed space which situates activity has a language in terms of the architectural practice of designing and constructing buildings. Therefore, the cultural and symbolic language of architectural space is also embodied in this mediating instrument of audience engagement activity happening in the art gallery, at the book fair or at the literary festival. The venues situating activity in this research each had distinct characteristics. Architectural features subtly informed the participants of activities held within, of the kinds of experience they were about to have or were having.

The contemporary arts centre building described in chapter 6 was both the object of activity at times and the mediating means of activity. The DCA building, its internal galleries, corridor spaces and public rooms were both the common situation and instrument of activities shared by the activity systems in the setting of activity of contemporary art, except for the Minimalist Games Jam activity (but the outcomes of which employed the donations box and the DCA building it was situated in). Contemporary material aspects do not remain contemporary for long, being subjected to the passage of time eventually and becoming of a period or style of that time. However, at this moment the materiality of this space is relatively stable and consistent with the materiality recognised in the vast majority of contemporary art venues. Common/conventional material features of contemporary art galleries include expansive white walls and large volumes of space. The architectural space mediated a variety of activities in the different spaces of DCA. The motivational outcome of the activity system of DCA is the production of audiences for the ongoing activity of making contemporary art and related cultural activities. The spaces of the DCA building described in the findings, both situated and mediated

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62 O'Doherty provides a history of the gallery and the exhibition space in a key text which shows how the gallery context has become central to works of contemporary art. Common features of windowless white spaces of contemporary galleries are said to follow “laws as rigorous as those for building a medieval church” (O'Doherty 1999, p.15).
activity in differing ways. A discussion follows of how the architectural features became mediating tools for interactions between DCA’s staff, the cultural works being mediated and DCA’s audiences.

The DCA visitor can choose to socialise in the café/bar or have a business meeting, purchase items or browse in the shop area, buy a ticket for the cinema or another event happening in the building, or walk along the corridor to the galleries. The galleries are free to enter but are the least obvious to the un-initiated visitor. The other spaces are more obvious in terms of what they are for, such as making a purchase or enjoying a drink with friends. These areas encourage a retail transaction. However, the VRC space, the print studio and the education space are all areas which are not immediately apparent for the DCA visitor.

These characteristics of the DCA building, described in chapter 6, allude to the kinds of visitor who would know of and use these spaces, as the following example explains. The VRC is hidden in the depths of the building. The very adventurous visitor would find it by chance, but most visitors would require previous knowledge of the centre’s existence or at the very least have a pamphlet or email which informed the recipient of an event at a date and time that the visitor could attend. The VRC space is not for the visitor who makes a visit on the spur of the moment or for a curious browse. In contrast, the main gallery spaces on the entrance level are open to any audience for browsing quickly or looking closely. However, the long corridor leading to the galleries was noted in the findings as a potential intimidating factor for the uninitiated DCA visitor. A point this analysis makes in relation to more hidden physical spaces from view are that they require an increased level of audience engagement which allows for the discovery of certain cultural experiences, not immediately apparent.

This analysis of the way in which the DCA building and spaces are arranged from the point of view of the DCA’s audiences, clarifies the reasons for the decision to focus on the new donations box and the loyalty card reader. At the end of the DCA Digital R&D project workshops, the donations box was chosen as an object of activity for further activity on the project. The findings showed how participants of the Digital R&D project felt producing concepts that could transform the donations box into a more active and enlivened tool would attract visitors to the DCA and increase donations. The VRC space had been recognised as an under-utilised space
in terms of public engagement. Analysis of the situation of the VRC in the basement of the DCA building also clarifies how the Small Society Lab activities situated there were motivated to increase the potential for public interaction with the VRC and associated research and co-production activities.

Overall, this contemporary art setting finds a context of activity which is formed of the architectural space, the symbolic tools of the visual features and the ways in which these tools mediate the activities of people in a complex mix of the widely open to all, moderately open areas depending on the levels of knowledge an audience member has, and the private. This mix evokes feelings in the visitor particular to that space which is particular to the experience of contemporary art at this time.

Architectural spaces were also a key mediating instrument of audience engagement activity for the NGS and the national collections of art. Similar to the DCA building which situated much of the activities observed in that setting of activity, the NGS venues formed the primary location for audience engagement activity in the setting of activity of national collections. However, the venues of the NGS are much older than the DCA building. They are imbued with historic and national importance which is conveyed in the architectural style, scale and age (which indicates a high degree of preservation and maintenance), the size of the grounds around them and their location. In terms of CHAT the history and tradition of mediating art and the meanings attributed to the history of exhibition making and viewing art are carried in the material and symbolic qualities of the NGS buildings. The opulent buildings of each of the four venues imbue the visitor with feelings of the grandeur associated with the collections and the history of art. Associated with the history of art are historical exhibition styles.63 The large gilt frames of the works on display in NGS venues are a characteristic of their ancestry and historical importance. The exception, however, is the Gallery of Modern Art One and Two. These galleries house the modern and contemporary art collections and the curation of these spaces shares the similar aesthetic and material qualities to those of the DCA galleries. Inside the opulent Georgian style architecture of the buildings the gallery

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63 The Salon Style is one such historical exhibition style which is highly contrasted to the white expansive spaces surrounding works in a contemporary art exhibition. Salon Style exhibitions showed paintings which were hung on the wall very closely covering much of the wall space available (O’Doherty 1999, p.17).
spaces are painted white and exhibitions follow the conventions of curating contemporary art.

Figures 26–36 (chapter 5) illustrated the use of resource areas and the transformation in the technology of the screen alongside the different intentions behind these tools across the NGS venues. Overhead screens, displayed out of reach of the visitor, are intended for informational provision about upcoming events. For example, figure 36 shows information about the ArtHunter app presented on an overhead screen at the gallery entrance. The touch screen monitors in figures 33 and 34 however are positioned on tables and a chair is provided for the visitor to sit and explore what the screen has to offer. The intention behind the touch screens is to encourage the visitor to interact with the cultural works mediated on and by them. The intentionality of the resource rooms used as tools of audience engagement by NGS was also observed. Of particular note was the transformation of the resource room in the Scottish National Gallery of Modern Art 1 (figures 27–32). Present in all images were printed publications in addition to tablet devices and a screen displaying a video interview with the artist. Tables and chairs were provided for the visitor to make use of the information while seated. The spaces were set up to encourage exploration activity in the visitor who wanted to find out more about the artists of the artworks in the exhibitions. In a similar way to the activity room in the DCA, the shared object of activity with these resource areas was to provide an educational and learning opportunity for the visitor. The updated resource room (figures 29–32) showed the additional provision of paper and writing materials for the visitor to create their own responses whatever they might be to the exhibition, or of their experience during their visit. The building containing the art galleries and the resource rooms across the venues of the NGS carry the history of the tradition of viewing art and of activity which engages the visitor and ultimately produces audiences for the artwork being mediated by these instruments (the material and symbolic qualities of them).

The tools mediating browsing activity and the associated challenges of producing the ideal experience for the cultural organisation is highlighted by the analysis in this chapter. The challenge of book discovery in the online environment for the publishing and literature activity setting is associated with the differences between the mediated experience of browsing in a physical bookshop to that of
browsing online. As mentioned earlier in this chapter, a key difference between the activity settings in visual arts and publishing was the lack of permanent building or venue which mediated audience engagement activity in the publishing and literature activity setting. Buildings in this setting of activity mediated activity on a temporary basis. The Olympia conference centre is hired to host LBF for the period of time of the fair each year. Within the Olympia centre, temporary stands were built to showcase printed materials and products by the publishers and other attendees presenting at the fair. University owned buildings were hired or booked to mediate the activities of the Dundee Literary Festival. The events organised by the Electric Bookshop were also held on a temporary basis at Inspace. As mentioned in chapter 4, the University of Edinburgh owned building for the department of Informatics was considered beneficial for encouraging people to attend Electric Bookshop events from outside the literary field. Activities the Inspace building mediated involved people in the division of labour of activity systems from outside of the community of literature and publishing activity, who were doing activity associated with the object of activity of informatics. The mix of technology, science, literature and art enabled by the activity of Electric Bookshop, shares similarities with the other two settings of activity. This example in particular shows how the building can potentially draw in people from other communities of activity—in this case from informatics into literature and publishing activity.

These examples discussed above show several ways in which publishers and other cultural organisations in the collective subject of activity systems in this activity setting had no permanent publicly shared venue for interactions to happen amongst audiences and the cultural experience or product. The corresponding equivalent would traditionally be the bookshop and library. These two spaces which act as the instruments for engaging with literature and books produced by publishers have been under threat in recent years, especially in light of the development in online shopping and the corresponding rise and rapid growth of Amazon. Public council funding cuts have also led to library closures.64 Perhaps this disruption in the

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64 According to the Chartered Institute of Public Finance and Accountancy (CIPFA) a total of 449 libraries have closed across England, Wales and Scotland since austerity cuts began in 2012. Between April 2016 and April 2017 there has been a 2.7% drop in the number of libraries in the UK (Onwuemezi 2017).
larger context of activity, explains why a key finding in the data for this setting of activity has been on discoverability of books in the online environment as a major challenge for publishers to address. This challenge of discoverability is discussed later in the chapter in relation to the ways in which browsing activity is mediated. However, in relation to the lack of physical venue that publishers have to engage audiences, it would be logical to conclude that online and digital tools which allow for sophisticated remote audience engagement would be more crucial than for their counterparts in the setting of visual arts.

The architectural, physical and spatial features of the venues which situate and mediate the activity of engaging audiences have been discussed across each setting of activity in this research. These physical, spatial instruments for mediating cultural experiences are the relatively unchanged (apart from minor refurbishments), permanent instruments of activity which form a basis in the visual arts (at least) for cultural organisations to engage with audiences.

Across the activity settings in visual arts, printed materials (conventional tools for audience engagement) were also observed in use in the spaces outside of the main galleries, in the hallways and café/bar areas of the venues of DCA and NGS. Prior to the existence of digital technologies, printed materials were the primary tool used in the activity system of audience engagement. In the field of visual arts, printed materials were shown to be used primarily to communicate information about the current exhibition and other events and programming in the arts venues. Artists and galleries produce printed publications which form a permanent archive of a comparatively temporary exhibition. Printed materials in this way are observed as having an archival purpose if collected and preserved in that way, or as printed ephemera, picked up by the visitor one day and littering the street on another. Printed matter in this field includes other subtleties with the uses towards engaging audiences. Printed matter functioned as stationary (e.g. wrapping paper and greetings cards for sale in the shop) and as publications (e.g. magazines). The magazines have the function of containing and publishing critical art journalism, part of the wider activity of the field of contemporary art. Posters were used to advertise upcoming events in the cinema and galleries in DCA. Cinema programme and education workshops were detailed in printed booklets, made freely accessible in the DCA entrance hall for the visitor. In the NGS venues printed matter was used in a similar
way to the information space in the DCA. The printed publications relating to artists’ previous exhibitions were placed on tables available for visitors to look at during their visit. Most publications were displayed openly and accessible for visitors to look at and use; whereas others were encased in a vitrine, turned into objects too precious to be handled. Outside the NGS venues large scale posters advertised the current exhibition on display inside with the intended function to attract the visitor who was not already aware by other means of what could be seen and experienced inside. Inside the venues, a small printed description and relevant information about each painting was positioned next to the respective painting. The functionality of this printed material is intended as a discreet way of informing the viewer of what they are looking at. This kind of functionality in contemporary art is usually achieved via a printed document that people can pick up at the entrance to the exhibition. Printed titles of works shown alongside artworks in the contemporary gallery are often regarded as being too intrusive and distracting for the purity of the viewing of the artwork.

In addition to the traditional/conventional tools used to engage audiences, findings showed the development of digital tools which augment traditional/historical instruments used by cultural organisations to mediate their audience engagement activity. The following analysis discusses the transformations that digital tools have made to the experience of the cultural works, as activities that employ digital tools interact with those which use printed and other material tools.

Mediating Instruments Under Transformation

The developments of tools observed in this research for audience engagement activity, e.g. developments that incorporated games software and design concepts, are transforming our experiences of cultural works and our understanding of how cultural works are being mediated. As discussed in chapter 2, activity systems evolve through the different interests and traditions people have in the collective subject, the corresponding different positions that people take in the division of labour and the tools they employ, which embody the history of previous activity. These differences are highlighted when activity systems interact (Nicolini 2013, pp.114–116).
This section discusses analysis of how activity systems interacted within each activity setting. A focus is placed on the tools which mediate the activity and form the relationship between the subject and object of activity. The activity systems of focus in the contemporary arts setting are: DCA Activity; DCA Digital R&D Activity (and the associated workshop activity systems); The Small Society Lab and The Minimalist Games Jam. The activity systems of focus in the national arts collection setting are: ArtHunter, Studio of Objects and Artcasting. Lastly the activity systems of focus in the literature and publishing setting of activity are: Bookspotting and the Books from Scotland Website.

*Interactions of Activity Systems: Activity Setting of Contemporary Art*

Common to activity systems in the activity setting of contemporary art was *co-production* as a shared aspect of the object of activity. Curatorial control in the broader activity system of DCA’s activities could cause tension for this object of activity for the other activity systems. However, this was not observed in the data gathered. *Hack style activity* and games developers in the communities of Digital R&D, Small Society Lab and Minimalist Games Jam show expansion of activity under DCA context of historical activity. The introduction of games as both tools and instruments for activity was observed as a fun way to experience donating money for example in the new donations box (as discussed in chapter 8).

Figure 51 shows the interactions between activities of the Digital R&D project, the Small Society Lab and the Minimalist Games Jam. A projected motivational outcome of the activity system of the DCA Digital R&D project was prototype concepts for a new donations box and loyalty card display. The mediating instruments in this activity system were the workshops. The workshop activity was mediated with the use of games. The resulting prototype concepts were presented at a Small Society Lab event shortly after they were developed. The prototype concepts became the object of activity in the activity system for this Small Society Lab event. The mediating instruments in this activity system included the VRC space and the presentations of the prototype concepts at the event. The broader object of activity of which was the exploration of issues and problems of civic life in Dundee using a creative mix of technology, science and art. In this event the problem space was defined as the prototype concepts, which were presented to the participating audience of the Small Society Lab event mediated by the VRC space and the instruments of
the laptops, mobile devices, presentation tools and furniture in the space. The problem in the case of the donations box at this stage was turning the prototype concept into a working three-dimensional prototype. A new object of activity became the materiality for the prototype idea for the new Artcade machine donations box.
Figure 51 Interactions of Activity Systems: Digital R&D Project, Small Society Lab and Minimalist Games Jam [diagram] Preston, L., 2018.
This analysis shows how the Small Society Lab event became an instrument for the production activity of the new donations box. The transformation of the mediating tool for the collection of donations for the DCA activities involved both the Digital R&D project activity and the Small Society Lab activity systems. The Small Society Lab event activity opened up the prototype outcomes from the Digital R&D project activity to a wider community of people doing hack-style activities. This transformed the context of the activity towards the object of the prototype for the donations box to one which involved open participation by everyone attending the Small Society Lab. Formerly the participation involved in the community for the Digital R&D project activity was restricted to the games developers in residence, the DCA staff members and researchers from CReATeS. The mediating means of the Small Society Lab activity, which was the VRC space primarily and the other tools used, transformed the VRC space as one, which was formerly closed off to the public, to one which became more open for open exploration activity described in earlier chapters. Subsequent to the Small Society Lab event, the new donations box Artcade was produced and installed at the top of the art centre’s stairs. Through the interaction of the Digital R&D project and the Small Society Lab activity systems, the donations box was transformed as a tool which mediated the collection of donations to the arts centre (representing the loyalty and levels of support by audiences for the art centre activities). Previous analysis charts the ways in which this donations box had also become a platform for publishing contemporary games. The transformations of focus here pertain to the mediating tools (including the symbolic and material aspects of the tools): the donations box, the space it was situated in at the top of the stairs of the DCA and the VRC space. The donations box was transformed from a tool, formerly simply a receptacle to hold money donated to the arts centre, to one which combined a two-fold characteristic of a game and a receptacle for visitor donations. The transformations of the VRC space was primarily related to the opening out of the space to a broader public who participated in the open explorations of the Small Society Lab activities.

Further to the new donations box being produced, the Minimalist Games Jam activity system showed how the new donations box became both the object of activity in this system and one of the mediating tools for the outcome of this activity.
A tension within this activity system was the materiality (the physical properties) of the donations box. This formed a challenge for the games designers with the object of activity to design a game for use on a three-dimensional object, rather than the usual two-dimensional flat screen of the mobile device or laptop for example. Indeed, across all the activity systems just discussed, a key tension was with the transformation of the conceptual ideas into material products or tools. The traditional activity of games design was being challenged by the materiality of the mediating means with which the final game would be played on. Also, in this particular example, the added challenge was to make a game using only three pixels (represented by three of the coloured boxes that formed the shape of the new donations box).

Chapter 8 discussed analysis of games used as tools for the workshops in the DCA Digital R&D project as well as being incorporated into the new donations box. However, returning to the intentionality behind the activity (which is essentially the shared object of activity in an activity system) the instruments discussed in this section show the expansion of games and game related production tools into the activity systems which led to the transformed new donations box—the tool for collecting monetary donations in support of the DCA. The idea of customer loyalty and support which is one of the objects of activity behind the donations box was transformed into another object of activity which included a level of entertainment and enjoyment. This had two factors to it, one which aimed to bring the DCA visitor back to repeat their visit and to ultimately repeat their donation, via the activity of playing a game and the second which was to develop audiences for contemporary game play in a contemporary art centre.

*Interactions of Activity Systems: Activity Setting of Publishing and Literature*

In the activity setting of publishing and literature the object of audience engagement activity across the activity systems included: playful ways to generate increased awareness of Scottish literature using a mobile phone; the construction of debates around new technologies for publishing; and ongoing publishing business and research. Games developers were also observed in the community of activity systems.

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65 This could be a reflection of the larger context that DCA is operating within. Dundee had the largest number of games developers in the UK outside of London in 2013 (Vallance 2014, p.17).
in this setting. Digital tools mediating audience engagement activity in this activity setting included: the app Bookspotting, which had a part to play in the transformation of the Books from Scotland website; and Twine software (table 2, chapter 7).

Analysis of the interactions of the activity systems of Bookspotting and the Books from Scotland website provides a picture of this transformative process. As was described in chapter 4, the former website “Books from Scotland The Online Resource and Bookshop” (est.2005) was developed in the context of Amazon’s infancy whereby Scottish books were often sold at a higher price and under relatively long delivery times. The Books from Scotland website at this time fulfilled the need in this activity system for improved cost and delivery time for online sales of Scottish titles. By the time of the Digital R&D project that produced Bookspotting (2013–2014) Amazon had transformed into the online seller we know of today, often performing cheaper sales and next day delivery. The object of activity for the website was re-conceived with this broader context in mind. The shift for the website was to fulfil a new object of activity, that of providing a curated selection of Scottish titles that promoted Scottish books. This shift was away from the provision of the sale of books because in addition to the activity of Amazon, the provision of sales was becoming too inefficient and costly for Publishing Scotland to fulfil. The website was also looking old in relative terms to other websites in the community of activity.

The more general object of activity identified by Publishing Scotland for publishers was book discoverability in the online environment. Bookspotting and the website development towards the current version of the Books from Scotland website in 2018 were two activity systems which worked towards resolving this shared object of activity. The former website was used as the instrument with which data was drawn from, for use in the development of the Bookspotting app. The Bookspotting app, once completed helped the collective subject including Publishing Scotland to see how the object of activity for the website could be re-envisioned. Both digital tools can be used on a mobile phone, but they do distinctly different things. The app suggests books to read next based on a series of options that the user makes and importantly the user’s location. There is little text to read through compared to the website. The website on the other hand provides an in-depth look around a particular issue. Both tools however promote book discovery in their different ways.
Similar to the DCA setting the Bookspotting app employs game-like aspects, which are not apparent in the Books from Scotland website.

*Interactions of Activity Systems: Activity Setting of National Art Collections*

In the activity setting of national art collections, the prominent mediating instrument was the physical gallery space (as discussed at the beginning of this chapter). It is logical that for a cultural organisation like NGS, mediating national collections of art, the artworks in the galleries would be a constant tool or mediating artefact in activity systems across the setting of activity. For this reason, the activity systems in the setting of national art collections interacted in different ways to those in the activity settings of contemporary art and publishing and literature. A key difference in this setting was that the NGS hold the national archive and collections of art, making their venue significantly important if for nothing else than the protection and preservation of the artworks. The activity systems of ArtHunter, Artcasting and Studio of Objects in use involved levels of direct interaction with the artworks in the gallery spaces. There was no interaction between these activity systems in terms of the process of development of each app. ArtHunter was developed first. Studio of Objects and Artcasting were developed shortly afterwards in separate project activities. During the production and use of both ArtHunter and Artcasting, the activity systems of these apps interacted with the activity system of viewing works in a gallery space. However, the Studio of Objects app, only involved direct interactions between the activity systems of viewing works in a gallery space and the activity system of the app in its production process rather than in its use by an audience member.

As was apparent in the setting of contemporary art, the gallery space was also the constant mediating instrument for audience engagement activity. The digital tools exemplified in this research proved to be prototype apps which explored an enhanced experience of the artworks that were located in the gallery spaces of the NGS venues. The prototype outcomes had no interaction with each other in use or in production. However, the prototypes involved interacting with the gallery spaces and the artworks inside them. The mix of digital tools with the material, traditional and relatively more permanent tools for audience engagement is discussed in the last part of this chapter.
Transformations to the Mediated Experience of Cultural Works

The digital tools under development transformed the experience of the cultural work being mediated as part of audience engagement activity. Of focus in this chapter are the ways in which digital tools, often used in conjunction with other mediating tools, such as those carried from historical audience engagement activity and physical spaces (although not always), transformed the experience of cultural works and thus audience engagement activity. The activity systems across the activity settings of focus with regards to developed digital tools included those which involved the production of mobile apps: ArtHunter, Artcasting, Studio of Objects, Bookspotting and the website Books from Scotland.

The development of apps, i.e. ArtHunter, Artcasting and Studio of Objects in the national collections setting of activity are a signal of the wider context of increased, if not ubiquitous, use of mobile phones and other tablet devices in everyday life: whereas the approaches taken in the setting of contemporary art signal the broader augmentation of games and game-design processes into everyday settings, interactions and activities. An additional observation that can be made of this dataset is that it signals and illustrates the current shift in this post-digital age of a mix of traditional, cultural and historical tools and instruments of activity and the new tools under development (mainly existing as prototype concepts and trial applications for mobile devices).

The digital touch screens installed in the Portrait Gallery and the television screen monitors across the venues of NGS (figures 33–36) show the development of technology hardware in terms of the aesthetics and materiality of the devices in the gallery space. The mobile devices and apps that were designed in this activity setting combined with the digital touch screens and monitors situated across the NGS form several different types of visual methods of engaging with the artworks on display—on top of simply viewing the work with one’s own eyes. This is perhaps a symptom of the different experiments that have been made in terms of engaging visitors and different groups of visitors through the years. However, it demonstrates the confusing and slightly distracting nature of multiple digital avenues for engaging with cultural works in addition to simply viewing them first-hand in the gallery space (considering the contemplation that is often required for such an experience).
However, findings also showed that ArtHunter was being used outside of the gallery spaces and opening hours (chapter 5). The examples in this case show the value in the digital avenues are the extra pathways that can be created to continue to engage with a collection of artworks once the visitor has left the building and the space in which they are on display.

*Transformations to the Proximity of Engagement*

A key aspect to the transformation of the mediated experience in all settings of activity is the proximity of engagement. Mobile apps and digital tools allow for a remote experience from the location in which the cultural work or live experience is happening. For example, Twitter was observed being used in the events of the Small Society Lab, the Minimalist Games Jam and most prominently LBF. Twitter was used by participants who shared the experiences they were having virtually.

What tensions do these activities pose in the mix of digital tools and physical tools, of live physical presence and live virtual presence and the corresponding differences in the mediated experiences? A key tension and challenge mentioned earlier in the chapter, which was most prominent in the setting of publishing was that of discovery and the challenge of re-mediating and transforming the traditional browsing experience had in a physical bookshop to an acceptable/successful equivalent experience online. The data shows how these challenges were explored with the development of Bookspotting and the subsequent transformation to the Books from Scotland website, but as yet unresolved for the collective subject involved.

Another key challenge or tension in activity systems for the setting of visual arts was the use of mobile phones in the galleries. As found in chapter 5, mobile policies had to be altered to allow for the use of digital tools in galleries. However, mobile phones were observed being used in a variety of ways, most significantly in terms of CHAT depending on the intentions behind the activity and subsequent use of the mobile. The findings (chapters 5 and 6) showed how different gallery visitors would take selfies using their mobile phones. This caused a tension from the point of view of the galleries in that these visitors weren’t just intrinsically experiencing the artwork in front of them, but were mediating, documenting and creating lasting evidence of the experience by taking a picture of themselves standing next to the
artwork. Findings also showed how gallery visitors were using the mobile phone to access other sources of information than the organisation’s official website.

Additionally, ArtHunter was found to be used most often when the gallery venues were closed. These examples show that while the digital tools may be developed for an intended use, they may be used in unanticipated or unexpected ways. This process is an ongoing evolving one. However, this research shows there is increased audience participation in this process, either by the ubiquitous ownership of mobile phones or use and design of website technologies. The crowdfunding example in LBF (discussed in chapter 9) showed how members of the potential audience for a project had a part to play in the role of gatekeeping for authors and project creators.

What is clearly shown across all settings is the prominence of games and corresponding mobile tools for audience engagement mixed with physical spaces and experiences of cultural works and events. Audience engagement activity involves the convergence of people from different communities of activity: games and software development; publishing; visual arts; design and education/research. A high proportion of activities were prototype concepts, which met with difficulties when it came to the transformation of these prototypes into material form, most especially in the contemporary art setting. These difficulties and challenges were most especially apparent when it came to the mix of digital software with material physical form and space. But there were also challenges with the aesthetic look and layouts. For example, with Bookspotting, the software used to generate the content of the app was an automatically generated system, rather than a pre-determined planned and designed layout which had the content added to it manually (as was the case in previous processes of publishing layout and app design for the company involved).

The publishing activity setting showed how there were no permanent spaces that primarily mediated audience engagement activity by the collective subjects. The Bookspotting app did however effectively mix a user’s physical location with the cultural works that were suggested by the app.

To conclude, this last section discusses the sub-research question: what are the implications of hybrid uses of technology, such as different mediums and formats (digital and material) for our understanding of post-digital audience engagement activity? The instruments that mediate activity have been analysed using CHAT, with a focus on how transformation to tools in activity systems have transformed the
mediated cultural experience in each activity setting. Analysis demonstrated how material and permanent instruments, namely architectural features, buildings and interior spaces, were integral for mediating audience engagement activity in the settings of contemporary art and national art collections. Through this analysis a gallery exhibition and venue is shown to be doing the same thing as a traditional conceptualisation of a publication. The gallery exhibition is a publication, which is experienced in the architectural space of the gallery for a finite period. The live experience of visiting a gallery and viewing an exhibition is augmented by the documents and tools for the audiences discussed in this chapter. However, in a longer timescale than the exhibition lasts, the exhibition is preserved by way of the printed documents, including review articles created by art critics and published by their respective publishers. A key difference highlighted in this sub theme of analysis was the lack of permanent physical space that was used by the cultural/sector organisations in the setting of publishing and literature to mediate audience engagement activity.

In terms of the development and use of digital tools, analysis showed how digital tools interact with physical spaces in both of the visual arts settings of activity, which provide an enhanced experience of the artworks and also the opportunity for a remote experience with the cultural works. In the publishing setting, analysis showed how the Bookspotting app development transformed the object of activity for the Books from Scotland website, from one primarily of the provision of sales to one of promotion, which aimed to help with book title discovery.

This chapter made comment of the fact that games were used as both an instrument in activity systems as well as being incorporated into developed apps, such as ArtHunter and Bookspotting. This can be taken alongside more detailed analysis and discussion made in Chapter 8 of the aspect of play and games as an instrument of activity to show how games and games developers have expanded into the community of activity of cultural organisations working within the contexts of art and literature.

Finally, this chapter has analysed the evidence of the ways in which cultural/sector organisations in the settings of visual arts and publishing and literature mediate cultural works. The instruments and tools of activity are a key part
of the answer to this question, essentially being the mediating means which form the relationship between the collective subject and the object of activity in the activity systems of CHAT. The ongoing transformation of audience engagement activity includes a close mix of the digital and material tools which are used in a variety of ways depending on the intention of the user as aligned with their object of activity. The ways in which post-digital audience engagement activity is understood as a result of this chapter and the preceding three analysis chapters is discussed in the final part of this thesis.
Part IV Discussion and Conclusion
Summary of Research Aims and Findings

This thesis conceptualises post-digital audience engagement activity in and across publishing and visual arts, using a practice-based studies research approach and Cultural Historical Activity Theory (CHAT). Three activity settings of publishing and literature, national art collections and contemporary art focused on audience engagement activity conducted by the respective central cultural/sector organisations: Publishing Scotland, National Galleries of Scotland and Dundee Contemporary Arts. The thesis argues for a conceptualisation of audience engagement activity in the post-digital age where complex cultural production and consumption activities are carried out across cultural mediums. The post-digital frame is conceptualised as the simultaneous use and mix of mediums and formats (i.e. digital and analogue) and audiences who participate and engage with cultural works/experiences in increasingly autonomous ways. In this context concepts of audience engagement are increasingly relevant and bear significance for a publishing industry keen to continue to adapt to challenges as a result of digital disruption. Furthermore, the nuances of post-digital audience engagement activity in, and across, publishing and visual arts add to subtle differences thereof to marketing activity and new relationships being formed with increased participatory audiences.

In order to address the research question of how audience engagement is understood in and across publishing and the visual arts in the post-digital age, this research firstly sought to gain an understanding of playful experimental projects which explored different uses of technology, alongside the implications of gamification and play on organising processes of audience engagement activity. Findings under analysis showed a transformation in the division of labour of activity systems incorporating gamified and playful audience engagement. Features of games, play and gamification were shown to be transforming the relationships between cultural/sector organisations and audiences. Playful activities encouraged by gamified apps, and other approaches such as co-productive workshops exemplified the requirement of increased active and participatory audience members. The incorporation of increased participatory audience members resulted in the simultaneous production and consumption of cultural works in and across literature and the visual arts, which also incorporated the games development community.
Secondly, the research aimed to gain further understanding of how audience engagement activity may have transformed due to co-productive and co-creative activity amongst audiences, cultural/sector organisations and technology partners. The question of how cultural works were mediated with audiences and the approaches and processes being undertaken, was explored. Findings under analysis showed a complex use of physical and digital material tools, some of which were undergoing transformation. The materiality and permanence of tools and the mix of architectural space, digital and physical tools used to mediate cultural works and experiences were shown alongside the proximity of engagement to be factors of audience engagement activity undergoing transformation. A key result of this analysis was that in publishing there is commonly no permanent physical venue for most publishers and other cultural organisations to engage with audiences. By contrast, in the visual arts, the gallery space was found to be a key tool with which to engage audiences in the cultural programme. Broader motivations behind audience engagement activity were shown to include those to generate and expand audiences, to create new, or nurture existing relationships with audiences, and to create new playful interactions with audiences. Organised events were shown to be a key feature of audience engagement in the post-digital age driven by these motivations. Events were shown as a key way for cultural/sector organisations to connect with audiences in expanded ways using a mix of digital and physical mediums and platforms. Events also demonstrated the opportunity for attendees to reflect on current activity and the potential transformations underway.

Lastly, the research aimed to gain an understanding of the implications of hybrid tools and the uses of technology thereof (different mediums and formats across the activity settings) to engage audiences in addition to co-productive or co-creative audience engagement activity. The implications of new kinds of co-productive or co-creative relationships with audiences on our understanding of gatekeeping and curating (key activities of cultural/sector organisations in these activity settings and more broadly) was the final aim of this research. The findings and analysis showed a tension in the balance of openness to participatory audiences and authorial control. An increasingly participatory audience was shown to be having an influence on tensions in the balance of openness to the participatory role of
audiences that a cultural/sector organisation has in relation to the curatorial/authorial control that they place on their activity in their respective roles. Credibility, authority and trust, branding and reputation are essential to cultural/sector organisations. These aspects are created by curating activity, which was found to play an increasingly important part of the broader mesh of cultural organisational activity, seeping over from its more commonly associated field of visual arts to those of publishing and games. A new conceptualisation of post-digital gatekeeping activity was proposed as an integral element to post-digital audience engagement activity.

Discussion

This research provides understanding of the dynamics of audience engagement activity in the post-digital age, as part of wider complex cultural production and consumption processes. As discussed in the literature, the post-digital age involves increased agency of the consumer as a DIY producer and of old media mixed with new (digital and analogue) in both consumption and production. Digital disruption and the transitions felt as a result alongside these aspects of the post-digital age was shown by the literature to cause disruption for traditional/historical activity of cultural/sector organisations, most especially for publishers. A requirement was highlighted for new understandings of roles that publishers could potentially expand into. In the context of the broader creative industries a call was made for publishers to foster partnerships and collaborations with other creative industry sectors. This thesis contributes additional understanding of how publishers can align their activity with other cultural organisations in communities of activity of games design and visual arts, in the post-digital age. The gamified activity of viewing artworks or finding the next book to read further illustrated the post-digital conditions in which cultural organisations are mutually working. The interactivity required in these playful participatory activities further suggests a relationship that moves beyond the straightforward consumption of an exhibition or book. Importantly for publishers, conventional gatekeeping roles of cultural organisations were shown to be challenged to an extent, by increasingly participatory audiences. This is juxtaposed by the other finding of this research, that in a world with an abundance of content, curating activity became increasingly important for the effective engagement of audiences for cultural organisations. This contrast of findings highlights the
complexity of the interactions between the cultural producing and consuming processes potentially found at play in the creative industries more broadly. As Bhaskar argues, in the literature review, that in the world of abundant information, curation is key for providing value to people who need help to choose what they want. The implications of this point in conjunction with the evidence of this research suggests that cultural organisations need to emphasise their brand and reputation for the cultural work they do. Key to the ways in which they can do this is by audience engagement activity.

It could be argued that audience engagement is another term for marketing activity. However, the evidence of this research shows audience engagement activity involves a relationship with audiences that cultural organisations are striving for in order to develop, maintain and nurture audiences who share in the cultural interests of the organisation. This is not to say that financial motives are disregarded by cultural organisations in this research. Commonly held motives for commercial publishing is to profit, or at least break even, from the production of the published product. However, as demonstrated in the literature review, a new breed of crowdfunding hybrid publishers are breaking the traditional publishing models with the mixing of potential patronage of cultural works from audiences who want to see them made. Building on this context of crowdfunding activity in the literature review, the findings and analysis of this research using CHAT showed that crowdfunding activity was transforming the division of labour in a co-constitutive process of cultural production and consumption. Through marketing activity of the crowdfunding process, members of the public were transformed into audiences (and ideally fan-bases) who supported the project pitch and thus became integral to the cultural production process. Furthermore, although cultural motivations behind audience engagement activity remain a priority for the publicly funded arts organisations in the activity settings of this research, financial motives remain in terms of the funding pressures and related performance of the funded organisation (e.g. audience and visitor figures).

Limitations of this research with regards to practicalities and the applicability and generalisability of the findings were encountered. Practical limitations related to the potential scope of the study which was wide ranging in terms of the possible routes this research could have developed further. This research illustrates the value
of using CHAT for understanding the transformations and dynamics of audience engagement activity which are especially significant in the post-digital age. However, this very quality in the dynamics of activity enabled by the theory makes for particular challenges in the practicalities of data analysis. A large volume of observational data was collected in this research to address a requirement for the CHAT approach of evidence of practice in action. Practically, there were limitations on the number of events I could attend, and a selection had to be made based on events happening at the time of data collection. Consequently, the CHAT approach had an influence on the resulting dataset in terms of the type of data collected for this research and the research questions. This observational data was contrasted with the historical aspects of activity, collected in the form of secondary data and semi-structured in-depth interviews. The interviews, as detailed in the methodology (chapter 3), were conducted using the snowball sampling method. This method was selected in order to highlight the networks amongst the cultural organisations. However, this was an influencing factor on who I subsequently talked to for interview data.

The extent to which the research findings and conclusions of this research can be generalised more widely depends on the situation they are related to and a comparison to the research questions of this research. As with case study research, generalisable claims for research are somewhat sacrificed for in-depth qualitative insights into phenomena. A key aim with this research was to uncover a greater understanding of transforming relationships between cultural/sector organisations and their audiences in the post-digital situation. This area of research is however a relatively young development in book history, which is arguably more developed in the academic and practical field of visual arts. However, the three activity settings selected as an adaptation of case studies using CHAT were selected to provide insight into both fields of publishing and visual arts.

This thesis contributes an understanding of post-digital audience engagement activity in, and across, publishing and visual arts, primarily to publishing studies in terms of the evidence it provides across the settings of visual arts and publishing. The broader conceptualisation of post-digital audience engagement activity of cultural organisations contributes to a deeper understanding of how cultural works are mediated and the implications for the resulting relationships between audiences
the cultural/sector organisations which are formed. A primary contribution this thesis makes to the discipline of publishing studies is in regard to the methodology and research approach used of CHAT, a strand of practice-based studies research approach. The results of this alternative methodology provided a focus on the motivation of activity which incorporates the acknowledgement of the printed and digital publication (as a tool or the object of activity), but also the spectrum of other tools involved and the members of the community and subject of activity which come from fields outside of traditional publishing.

Recommendations for future research are in areas this research could not pursue due to the practical restraints of this project. Further research in the area of digital connectivity and community in the post-digital age could provide additional understanding of concepts of publishing for cultural organisations more broadly. Additionally, as the post-digital situation continues to develop, the instances of simultaneous production and consumption highlighted by this research could warrant further research in terms of audiences transformed from members of the public in these processes. Relatedly, the roles and understanding/conceptualisations of the citizen/consumer/public/publics mentioned in the literature review, in a mesh of relationships in the creative industries, could be further fruitfully explicated by future research linked to the conceptualisation developed by this thesis of post-digital audience engagement activity. Collaborative processes of games developers, publishers and other cultural/sector organisations would additionally expand on a worthwhile understanding of potential roles for publishers as the emergent post-digital age and implications thereof continues to develop.

Conclusion

To conclude, post-digital audience engagement activity in, and across, visual arts and publishing is conceived of as the socially collective activity motivated to generate and expand new audiences, to develop new relationships and to create playful interactions with audiences. Events are a feature of this activity which produce and co-produce audiences. Events, alongside other tools and mediating means for collective audience engagement activity analysed, employed a mix of digital devices and material analogue tools with digital software, networks and connections. This illustrated transformations underway to the experience of the cultural work and its
production. Games and gamified approaches incorporated into participatory activities of engagement with literature, books and visual arts, evidenced transformations to traditional relationships between audiences and cultural/sector organisations. Gatekeeping roles of cultural organisations are under a degree of tension in terms of the balance strived for between the valuable curatorial activity they undertake and the degree of openness to increased participatory audiences/producers. These characteristics of audience engagement activity clearly resonate with those of the post-digital age discussed in the literature review.

As stated previously, this research uniquely used the CHAT approach in the discipline of publishing studies to explore the research question of how audience engagement activity is understood in and across publishing and the visual arts in the post-digital age. Therefore, this thesis contributes to further understanding of post-digital audience engagement activity in publishing, and in wider cultural/sector organisations in the creative industries, namely visual arts and games. This thesis provides further understanding of the crossovers of the cultural mediums of literature and books, visual arts and games in the post-digital age. Thus, the complex dynamics of engaging audiences in amongst processes of production and consumption which constitute increasingly interactive and participatory audiences have been illuminated. Consequently, understanding of the place and role of publishing activity more broadly in amongst activity of cultural/sector organisations in games and visual arts has been provided. The challenges and tensions therein to the traditional roles of gatekeeping, conventionally the role of the publisher, additionally provides insights into how publishers might navigate future disruptive developments and opportunities in the post-digital age. This thesis provides insights into complex, transforming relationships between cultural/sector organisations and audiences in the post-digital age, characterised by increased participatory audiences, gamification and play and the mixed use of digital and analogue tools, live events and physical spaces.
# Appendix

## Data Overview: Activity Setting One – Publishing and Literature

<table>
<thead>
<tr>
<th>Semi-Structured Interviews</th>
<th>CReATES Interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total: 7 Interviews</strong></td>
<td><strong>Total: 6 Interviews</strong></td>
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| Interview 1 | Date: 27.10.14 | Duration: 00:18:27 |
| Interview 2 | Date: 03.11.14 | Duration: 01:30:38 |
| Interview 3 | Date: 10.11.14 | Duration: 01:10:14 |
| Interview 4 | Date: 17.11.14 | Duration: 01:03:10 |
| Interview 5 | Date: 09.12.14 | Duration: 00:50:34 |
| Interview 6 | Date: 12.03.15 | Duration: 01:03:44 |
| Interview 7 | Date: 17.11.15 | Duration: 00:59:55 |

| Group Interview | Interviews: 19 | Date: 30.03.15 | Duration: 00:26:09 |

### Images
- Twine Jam Event: 03 images
- Bookspotting App Screenshots: 17 images
- Dundee Literary Festival: 03 images
- Maglif Event: 49 images
- Inveraray Library Visit: 31 images
- Martin’s Printers Visit: 22 images
- Mitchell Library Reading Group: 07 images

### Documents

### CReATES Documents
- Our Exclusive Maps of Scottish Books, Authors, Publishers and Festivals [screenshot] booksfromscotland.com The online resource and bookshop (Publishing Scotland, 2013)
- About BooksfromScotland.com [screenshot] booksfromscotland.com The online resource and bookshop (Publishing Scotland, 2013)

### Events: Observational Data Collection
- Visiting Speaker Talk University of Stirling: Sinclair, M. Publishing Scotland, 14.11.13 (1 hr)
- Site Visit: Martin’s Printers, 29.11.13 (1 day)
- Publishing Scotland Conference, Glasgow, 04.01.14 (1 day)
- Dialog: Across Decades eBump’s 10th Anniversary Conference, 27.05.14 (1 day)
- Bloody Scotland Masterclass: Crime Writing; Writing Neroes: Crafting Opening Lines 19.09.14 (1 hr)
- Visiting Speaker Talk University of Stirling: Thrink Publishing, 09.10.14 (1.5 hr)
- Visiting Speaker Talk University of Stirling: Searle, A. Freight Books, 16.10.14 (1.5 hrs)
- Visiting Speaker Talk University of Stirling: Sinclair, M. Publishing Scotland, 23.10.14 (1.5 hrs)
- Visiting Speaker Talk University of Stirling: Dr. Baynes, S. UCL, 04.12.14 (1.5 hrs)
- Publishing Scotland Conference, COSLA, Edinburgh, 2015 (1 day)
- Inveraray Library Visit, 21.03.15 (1 day)
- Digital Minds Conference, London, 13.04.15 (1 day)

| London Book Fair, 14-16 April 2015 (3 days) |
| Scottish Young Publishers Magazine Event, Out of the Blue Drill Hall, Edinburgh, 05.06.15 (evening) |
| Magfest, Royal Surgeons Hall, Edinburgh 18.09.15 (full day) |
| Dundee Literary Festival: Word into Art, Art on Words, 22.10.15 (1 hr) |
| Dundee Literary Festival: Mike Collum and Tom Foster, 23.10.15 (1 hr) |
| Dundee Literary Festival: Marginal Technologies the Future of Books in a Digital Age, 24.10.15 (1 hr) |
| [im]Possible Constitutions: Publishing in the Digital Age, London, 31.11.15 (1 day) |
| Adaptation workshop, University of St Andrews, 11.12.15 (1 day) |
| Scottish Young Publishers Event: Children’s Publishing, 18.11.15 (evening) |
| Salisbury Society Awards, Edinburgh, 26.11.15 (evening) |
| Electric Bookshop Event: Twine Jam, Edinburgh, 28.11.15 (1 day) |

Table 5 Data Overview: Activity Setting One

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<th><strong>Data Overview: Activity Setting Two – National Art Collections</strong></th>
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<td>Interviewee 26. date: 07.04.15. duration: 00:41:13.</td>
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<td>National Galleries Images:</td>
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<td>Studio of Objects Launch:</td>
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<td>ArtHunter App:</td>
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<td>Screenshots:</td>
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<td>ArtHunter Content &amp; Style Guide</td>
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<td>Press Release Daskalopoulos Curator of Engagement</td>
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<td>Titan Press Release</td>
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<td><strong>CREATeS Documents and Research Reports</strong></td>
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<td>National Galleries - revised proposal</td>
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<td>Studio of Objects Launch, London, 17.07.15</td>
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*Table 6 Data Overview: Activity Setting Two*
## Data Overview: Activity Setting Three – Contemporary Art

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<td>DCA Project Application Form for the Digital R&amp;D Fund</td>
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<td>17 images</td>
<td>DCA Staff Survey Questions 2012</td>
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<td>05 images</td>
<td>Notes from initial meeting August 2012</td>
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<td>Project meeting discussion notes 4 December 2012</td>
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<td>04 images and 37 images respectively</td>
<td>DCA Workshop Observations DCA 4 December 2012</td>
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### Table 7 Data Overview: Activity Setting Three

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**Additional data collected from the broader communities of activity, outside the activity settings**

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<tr>
<td>Cultural Mapping Event, Creative Scotland, Edinburgh, Feb 2014</td>
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<td>The Future of the Creative Industries, 14 May 2014</td>
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<td>Nesta Digital R&amp;D spotlight event, Creative Scotland, Edinburgh, 21 May 2014</td>
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<tr>
<td>Nesta Digital R&amp;D in the Arts Annual Forum, Vinopolis, London, 3 July 2014</td>
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<tr>
<td>AHRC, Cultural Value Project Talk, MacRobert Centre, Stirling, 22 Oct 2014</td>
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*This data was collected in relation to the broader debates happening in Scotland for the Creative Industries and in relation to Nesta activities and wider Digital R&D projects in the UK.

*Table 8 Overview of Additional Data Collected*
| Description of activities – what people do: | Job Role Activity  
Curating Activity  
Project Activity: Sub-node - Game play  
Exploring possibilities  
Studio Working |
|-----------------------------------------------|---------------------------------------------------------------|
| Emergent coding from the data | Commission approach  
Education  
Identity  
Risk  
Creating Communities and Audiences  
Manufacturing an object, or product  
Technology access – DIY ethos  
Wonderment of art and tech  
Creative Cultural Organisations Descriptions  
Cultural Ecology  
Functionality  
Media Convergence  
Art Business tensions – identities  
Code Club  
Improvisation  
Knowledge exchange  
Online communities  
Prosumption  
Quality  
Tech Company descriptions  
Music  
Pioneering activity  
Working Partnerships  
Time (See supervision notes Sep 2015)  
Audience Engagement  
Publishing  
Background Interests  
Collaboration  
Physical Location Mixed with Digital Technology  
Physical Location  
Aesthetics  
Innovation  
Interface and Interactive Instruments  
Prototypes  
Working methods and approaches  
Transformation – re technology  
Apps  
Gamification  
Relationships between publishing and other media  
Collective, Co-operative Working  
Gatekeeping |
| Theoretical led codes, based on CHAT | Resources: Sub-node - Funds  
Rules  
Motivation for Activity: Sub-node - Pre-project reasons for applying  
Architectural Space  
Materiality  
Division of Labour  
Object of activity |

*Table 9 List of Codes*
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<th>Data</th>
<th>Code:</th>
<th>Category:</th>
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<tbody>
<tr>
<td>“TTS. Digital is the digital strand of the National Youth Arts Strategy and the idea is to inspire digital creativity in young people” (27)</td>
<td>Object of Activity</td>
<td>Supporting development of technology driven arts</td>
<td>Technology driven arts expanding</td>
</tr>
</tbody>
</table>
| “DCA is an organisation that has a mission statement and key aims. It’s mission statement is to present art and culture of the highest quality (this is said in a way in which she has said this sentence a lot of times)
LP: yeah
SD: under that there are a set of five or six aims em, the second aim to create clear pathways for people to engage with contemporary art and culture at DCA. So that’s what I work to, and then number five is to be a community asset. So that’s what I work to” (37) | Object of Activity | Audience Engagement | |
| “how we engage the public in being an audience, but being somebody who can make something” (37) | Object of Activity | Audience Engagement: Participatory | |
| “Future Fossil, one of the guys from, Future Fossil are six eh, postgrads who in 2012 formed a company stayed in Dundee to design games, they’re launching their first game, there’s six of them, one of them’s a girl, yay
LP: yay (laughing)
SD: so we’ve got Stefan, who’s not the girl eh, helps out with Code Club, and then we have just written them in both Maker Space and Future Fossil, have just gone in as our technology partners for a Time to Shine Digital application to Creative Scotland” (37) | Subject | Games Designers & Maker Collective | |
| “I don’t know if you’ve seen the games community in Dundee really morph and evolve in the last few years, so the big, the triple A stuff isn’t sustainable.” (18) | Community | Games Community Evolving | |
| “basically where I sit Neon happens, em, like you know we’ve been able to employ Lyle for the year, we’ve been able to employ Ed for Neon. Looking at this year we’re doing a theme on Asia, so we’re looking at Japan, Korea, China and Taiwan so we’re (can’t make out the words she says next) Em so yeah and eh we’ve been involved in the gaming side of Neon so when I do both of those, so when I’m invited to talk at things I talk about both of those things, cos I always see cos I don’t have a gallery space, Neon’s almost like our gallery space.” (32) | Division of Labour | One person with multiple roles/projects | |
| “over the summer, it’s a bit of a weird one over the summer because our, the campus is really quite quiet. The students are all away and people are taking holidays so we try and usually do something which em, hooks in with other activity in the city.” (18) | Rules | Holidays/Semester Dates | |
| “it doesn’t, there isn’t any, you know there’s lots of kind of the language around it is still evolving I think. So we say new media but is it really new anymore, and we say digital, but it’s not always digital and so I think, maybe the newness of it means that we’ve still not really defined it, in terms of how we speak about it” (18) | Tools | Language still forming around technology and how it’s used in the visual arts related context of practice. | |

Table 10 Example Tabulation of Data
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