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Reimagining Disruptive Technologies: The User Experience of Netflix and Pokémon GO in Australia

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Reimagining Disruptive Technologies: The User Experience of Netflix and Pokémon GO in Australia

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Abstract

The user experience of disruptive technologies is insufficiently understood by industry and academia as discourse is typically centered around the impact of new technologies on existing services, business models, and their respective industries. This thesis seeks to address this gap in knowledge and develops an original framework, the Disruption-Experience Model (D-E Model), for identifying and describing user experiences of technologies that have been perceived as disruptive. The D-E model involves three interlinking concepts: stabilisation, which is a sustaining experience whereby thoughts, feelings and practices are reinforced; destabilisation, which is a dysfunctional experience whereby thoughts, feelings and practices are undermined; and transformation, which is a novel experience whereby thoughts, feelings and practices are dramatically shifting. The methodology for the thesis draws on principles from ethnography, and 28 participants were recruited from the city of Wollongong in New South Wales, Australia for the investigation of two case studies: the subscription video-on-demand (SVOD) service Netflix and the augmented reality (AR) mobile gaming application *Pokémon GO* (PoGO). By observing online discussions, talking to Netflix and PoGO users directly through interviews and participating in walk-alongs, I found that the user experience diverges from some of the established perceptions identified from the literature and public discourse. Netflix has been perceived as a dramatic disruption for the Australian television industry, but in terms of the user experience it was mostly a continuation of existing viewing practices, with internet piracy as the middle-man. PoGO was perceived as disruptive in different ways by different people, with game changing implications for the AR, marketing and mobile gaming industries. However, users were less interested in the innovative aspects of the game and more excited about experiencing Pokémon in a new way and being part of a historical, cultural moment. This thesis provides nuance to conversations of disruptive technologies by including the point of view of the user, and the D-E Model can be useful for understanding experiences of other technologies—or potential disruptions—in the future.

Acknowledgments

Certification

I, Loren Vettoretto, declare that this thesis submitted in fulfilment of the requirements for the conferral of the degree Doctor of Philosophy, from the University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. This document has not been submitted for qualifications at any other academic institution.

Loren Vettoretto

29 August 2021

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Abbreviations

AR	Augmented Reality
D-E Model	Disruption-Experience Model
DIT	Disruptive Innovation Theory
DVR	Digital Video Recorder
FTA	Free-To-Air (free television)
NBN	The Australian National Broadband Network
Pirate	Person who engages in internet piracy
PoGO	Pokémon GO
SVOD	Subscription Video-on-Demand
VOD	Video-on-Demand
VPN	Virtual Private Network

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1
Introduction

Over the past two decades, emerging technologies have been increasingly labelled as disruptive. A disruptive technology is typically recognised as a superior product or service that significantly changes the ways industries and businesses operate, expands consumer markets or reshapes consumer behaviours (Chandler & Munday, 2020a; Smith, 2019; Doyle, 2016a). This thesis introduces an original conceptual framework, the Disruption-Experience Model (D-E Model), which focuses on the perspective of the user.[1] A series of analytical tools are developed for interpreting the user experience of two international entertainment media technologies that have been perceived as disruptive in Australia: subscription video-on-demand (SVOD) service Netflix and augmented reality (AR) mobile gaming application *Pokémon GO* (PoGO).[2] Netflix is the biggest streaming service in the world and had a significant impact on the Australian television industry when it arrived in March 2015 (Turner, 2019a; Lobato, 2019; Schomer, 2020; Netflix Media Center, 2020; Bennett et. al., 2020). PoGO is the most successful smartphone gaming application for the Pokémon brand, which launched on 6 July 2016 in Australia and led to a global craze (Kleiner, 2016; McDermott, 2016; Sung-Won, 2017; Koskinen et. al., 2019; Iqbal, 2021b). Using these two case studies, this thesis investigates how 'disruptive' entertainment media technologies are integrated into people's daily lives and what they actually mean to them.

1.1   Research Statement

This thesis develops an original framework for investigating the thoughts, feelings and behaviours of Australians as they integrate entertainment media technologies that have been labelled as disruptive into their daily lives.

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[1] The term 'user' represents someone who is operating or interacting with a technology product. In line with the stance in communications and cultural studies, this thesis views users of media technologies as active, meaning-making agents rather than passive receivers (McLuhan, 1967; Hall, 1973; de Certeau, 1984; Pertierra, 2017a; Bruns, 2006; Jenkins, 2006).
[2] Utilising the perception of users as active participants, I understand user experiences as the thoughts, feelings and behaviours of individuals as they engage with and integrate new technologies into everyday life. I discuss this line of thinking in Chapter 2.

1.2   Problem

Disruption is a buzzword with competing definitions, inferences and applications, commonly used across many industries and sectors in reference to emerging technologies since the early 2000s (Christensen, 1997; Rutz, 2010; Allworth, 2011; Henry, 2012; Christensen et. al., 2015; Henry, 2016; Sood & Tellis, 2011; Moreau, 2013; Lepore, 2014; Daley, 2015; Riddell, 2015; Bloomfield, 2016; Chapman, 2016a; Baalbaki et. al. 2017; Campbell, 2018; Buonanno, 2019). Disruption has been a hypernym for any kind of technological change and is often deployed in conjunction with other terms like 'digital', 'technology' and 'innovation' (Christensen, 1997; Bailey, 2014; Daley, 2015; Bloomfield, 2016; Chen & Han, 2019). Both Netflix and PoGO have been described as disruptive, however Moazed and Johnson (2016) point out that disruption has been used to describe every innovation in the tech sector. The label of disruption has thus been diluted, which reveals a demand for more nuanced discussions of disruptive technologies.

Discourse around disruptive technologies are often in relation to their industry impact, rarely focusing on the experiences of users and how these technologies are felt at the ground level (Kleiner, 2013; Riddell, 2015; Horn, 2016; Moazed & Johnson, 2016; Chapman, 2016a; Bloomfield, 2016; Idato, 2017; Campbell, 2018; PwC Australia, 2018b; PwC UK, 2018; Chen & Han 2019). Research on user experiences of media technologies is typically done by companies to determine trends in consumer behaviour to help design and sell products and services, and detailed insights are unlikely to be made public (Turnbull, 2014). Reports on consumer trends are extremely useful for economic motives; they inform game designers, content producers and telecommunications providers what services people want and what they are willing to pay for. However, this does not effectively capture experience. Indeed, there is no academic research that details the everyday user experience of media technologies within the framework of disruption.

Australian scholars argue that the uses of television and new media need to be understood within the structure of everyday life as a matter of broad social concern (Turnbull, 2006, pp. 81–82; Pertierra & Turner, 2013; Turner, 2019a). Sue Turnbull (2012) highlights the need for more qualitative insight regarding television viewing:

> Less well observed is how television was actually watched or what it meant to those who were doing the watching in specific historical, geographical and cultural locations, both then or now. In industry terms, the audience is rarely visible except as an anonymous ratings statistic...However, these statistics don't tell us very much about how television was woven into the lives of its audience in any real way. With this gap in the records in mind, it is salutary to

> note how often claims are made about the experience of television or the impact it has had on its viewers without anything but the slightest of clues (p. 17).

Turnbull observes that statistics do little to indicate what people are actually experiencing. This has been exacerbated as companies are now increasingly focussing on people's clicking and scrolling behaviour, rather than their thoughts, feelings and everyday practices. This argument is relevant for both streaming services and mobile games; digital footprints are only part of the story. Pertierra and Turner (2013) believe there should be greater attention to "the domestic micro processes of habit and behaviour" (p. 27).

There have been some recent qualitative insights published, at least in terms of television. The *Australian Cultural Fields* (ACF) project led by Tony Bennett, and contributed to by Graeme Turner, included interviews with Australians regarding their viewing habits between 2016 and 2017 (Turner, 2019a; Bennett et. al., 2020). Yet Turner (2019a) still insists there is a need for more research as he writes "there is literally no published academic research that could help us improve our knowledge...and provide an updated account of what Australians now do with television" (p. 226). Turner (2019a) is also referring to newer forms of televisual consumption, such as streaming, illustrating the ongoing demand for this research.

Researching the behaviours of new media audiences is becoming increasingly difficult because they are continually reshaped in response to technological change. As a result, there is a great deal of speculation, and "too little documentation", which means there is progress to be made for describing and understanding the cultures of use that are emerging as the options for users continue to grow (Gray, 2017, p. 81; Turner, 2019b). Furthermore, people are less often part of a mass audience due to entertainment services providing more personalised experiences (Turner, 2019a). It is therefore difficult to establish common conceptions around how new technologies are being experienced, revealing the importance of paying close attention to the individual and the value of this research.[3] Given all of this, there is thus a need for more tools to explore and account for the user experience of new technologies that enter our everyday life, especially those that are labelled as disruptive, as the connotations of disruption signify something more intense than just technological change.

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[3] Turner (2019a) explains that attention to the everyday practices of users and households remains the most useful in the audience studies tradition, influencing media ethnography research.

Introduction

1.3 Objectives

This thesis aims to provide an account of the ways Australians are engaging with and making sense of new media technologies that have been labelled as disruptive. In light of this endeavour, I address the following research question:

> How can we better understand the user experience of technologies that have been perceived as disruptive?

To answer the research question, the thesis is oriented around four key objectives:

(i)   Develop an original framework for analysing and describing the user experience of disruptive technologies

(ii)   Consider the previous technologies that led to the emergence of Netflix and PoGO and how they contextualise the user experience

(iii)   Examine the ways and reasons Netflix and PoGO have been perceived as disruptive technologies

(iv)   Explore, describe and discuss how Australians have integrated Netflix and PoGO into everyday life

Each objective guides the process of building a richer and more enhanced picture of how these disruptive technologies are experienced by users.

1.4 Originality

There is currently no specific and comprehensive theory or model to account for the user experience of disruptive technologies in the media and communications discipline. Frameworks and concepts exist for explaining what disruption might mean from an industry perspective (Christensen, 1997; Rutz, 2010; Sood & Tellis, 2011; Ingle, 2015; Sarto, 2015; Chapman, 2016a; Clarke, 2017). Media, communication and audience studies certainly help bring an anthropological approach to user experiences (McLuhan, 1964; Hall, 1980; Bruns, 2006; Jenkins, 2006; Turnbull, 2006; Pertierra & Turner, 2013; Hill, 2017; Turner, 2019a; Evans, 2020). However, Lotz et. al. (2018) and Turner (2019a) have suggested the need for more robust methodologies for analysing media consumption. The development of the D-E Model (Disruption-Experience Model) aims to address this and is tested with two case studies, Netflix

and PoGO. The goal is not to compare and contrast these two technologies, but to use the model to gain a better understanding of them as they entered the daily lives of Australians.

The D-E Model was developed through empirical evidence in addition to motifs in the literature around disruption and technological change. The model involves three interlinking concepts: stabilisation, which is a sustaining experience whereby thoughts, feelings and practices are reinforced; destabilisation, which is a dysfunctional experience whereby thoughts, feelings and practices are undermined; and transformation, which is a novel experience whereby thoughts, feelings and practices are dramatically shifting.

Disruption means different things to different people, businesses, industries, cultures and societies. Therefore the D-E Model is not a simple explanation or rigid theory about what disruption is, but a set of conceptual tools for future researchers who want to think about, interpret and describe the experience of disruptive technologies from the user's point of view. This is of interest to scholars in the broader field of humanities and social science, developers and consumers of media technologies, government policy makers and independent regulators involved with innovation.

1.5   Case Studies

Because emerging media technologies—particularly in the entertainment genre—are "central to our experience of ourselves and the world" this research is critical for scholars across the humanities (Turnbull, 2006, p. 79). The economy is shifting from products to services; people want meaningful experiences. As such, entertainment industries are booming, with streaming services and mobile gaming applications becoming increasingly popular (Tryon, 2013; Jenner, 2014; Given, 2016; Destreza, 2017; Burroughs, 2018; 2019b; Roy Morgan, 2019; Lynkova, 2020; Dobrilova, 2020).

Netflix and PoGO are distinct technologies, but I selected them because (1) both were immediately popular in Australia, (2) they have both been labelled as disruptive and (3) they both fall under the umbrella of entertainment (Denning, 2016; Chapman, 2016; Lambrechts, 2016). Televisual content has become a part of everyday life and video games are one of the fastest growing forms of entertainment around the world, which make them culturally relevant case studies for this thesis.

Introduction

Netflix has been described as the "most dramatic disruption" for Australian television (Bennett et. al., 2020, p. 85; Turner, 2019a). Netflix is currently the biggest international online entertainment service, with over 200 million subscribers across 190 countries (Netflix Media Center, 2021). Researching how Netflix was integrated into the daily lives of Australians is necessary because its rapid adoption triggered a dramatic reconfiguration of the national media system (Jenner, 2018; Lobato, 2019; Turner, 2019a; Bennett et. al., 2020). The extraordinary growth and popularity of SVOD services over the past six years in Australia means our experience of television is changing, and this must be accounted for (Turner, 2019a). Turner and Pertierra (2013) write that television studies research has been largely concerned with what the future of television might look like, rather than detailed examinations of present viewing practices (p. 21). Investigatng what is happening now can help us better understand the direction we are heading or where we end up.

PoGO has been referred to as an explosive cultural phenomenon that disrupted the mobile gaming industry (Linkner, 2016; Haigh, 2017; Hjorth & Richardson, 2017; Stewart, 2017). Investigating PoGO is important and relevant because it was the first location-based AR mobile gaming application to be adopted on a mass scale, with its success outpacing any of its predecessors (Kleiner, 2016; McDermott, 2016; Sung-Won, 2017; Koskinen et. al., 2019). In addition, the mobile gaming market in Australia is growing as two-thirds of smartphone users now play games on their device, contributing over AU$1 billion in revenue each year (Venture Insights, 2019). PoGO broke revenue and download records during its arrival, and despite its 'faddish' peak and subsequent rapid decline in the number of players, the game is still massively popular with an estimated six million daily players in 2021 (Russell, 2017; Thier, 2017a; Iqbal, 2021b; ActivePlayer.io, 2021).

1.6 Method

With the goal of effectively paying attention to the experiential accounts of Netflix and PoGO users, the methodology of this research project drew on ethnographic principles. Ethnographic research is concerned with exploring phenomena from participants' point of view and within the context in which they live (Geertz, 1973; Trueba, 1981; Spitulnik, 1993; Hine, 2000; Pertierra, 2017a; 2017b). Time is an important part of this context, so the case studies have a temporal focus; between 2015 and 2018 for Netlifx and 2016 and 2018 for PoGO. The purpose is to produce a focussed snapshot of the year each technology arrived in Australia, initial reactions and integration into daily life.

The methodology is detailed in Chapter 3 and falls under the umbrella of media ethnography. Media ethnography is a methodological framework and a field of research that pertains to the examination of how new media technologies exist in our lives and their sociohistorical contexts (Pertierra, 2017a; 2017b). I employ a combination of ethnographically-driven qualitative methods in order to investigate the disruptive media technologies Netflix and PoGO.

The data collection process involved two parts, a digital ethnography and in-person interviews. The digital ethnography is an observation of discussions on the reddit website that was conducted in 2018. Data from the digital ethnography helped inform case study literature, guided interview questions and supplemented interview results. Observing what was being talked about online generated some context for how these phenomena exist in our world, and interviews provided a national focus. Participants were recruited from the city of Wollongong in New South Wales, Australia for both Netflix and PoGO. For Netflix, interviews included a virtual walk-through and were conducted with 14 participants between July and September 2018.[4] For PoGO, interviews were conducted with 14 participants between December 2016 and May 2017, and a physical walk-along was conducted with four participants from this sample between November 2016 and August 2017.[5] Interviews were important for uncovering more detailed and granular information regarding how people think, feel and behave as users of these disruptive technologies. Indeed, we cannot know what the user experience looks like and what it means to them unless we directly ask.

1.7 Structure

The remainder of this thesis is divided into seven chapters. Chapter 2 is a literature review examining the concept of disruption. I begin by exploring the etymology of disruption and its association with technological change and transformation. I proceed to unpack the different ways disruption is understood, revealing that it is primarily used as a nebulous buzzword to describe innovations. I identify that the user experience is largely absent in this discourse around disruption and argue why it is important for filling out the picture of disruptive technologies. To address this

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[4] Participants were asked to bring a personal device to the interview and scroll the Netflix platform, in order to encourage reflection and prompt discussion.
[5] The walk-along refers to me being physically present with participants while they walked around playing PoGO.

gap in the literature, I propose the D-E Model, which involves a series of analytical tools for investigating the user experience of new technologies that have been labelled as disruptive.

Chapter 3 details the methodology of this project, which is influenced by ethnographic principles to bring an anthropological dimension to the study of Netflix and PoGO in Australia. I explain the procedures for participant recruitment and data collection methods, which include a digital ethnography and semi-structured interviews. I describe the data analysis process, whereby I identify key themes from the data and deploy tools from the D-E Model to make sense of them within the framework of disruption. This chapter also includes ethical considerations, recognition of limitations and reflections of the data collection and analysis processes.

Chapter 4, titled From Television to Televisual, is a literature review that initiates the Netflix case study. I examine how patterns of user behaviour have developed in response to television, internet streaming and piracy, which includes technologies of agency, binge-watching practices and the arrival of SVOD services in Australia. This helps to understand Netflix's label as a disruptor and lays the groundwork for the user experiences that I analyse in Chapter 5.

Chapter 5, Experiencing Netflix, is an analysis and discussion of participants' experiences with Netflix. The chapter is structured around three key themes that were identified from the datasets: Arrival & Integration, Agency and Binge-watching. I explore the way participants integrated Netflix into their everyday life by taking a close look at their experience with television, piracy and SVOD services in Australia. I reflect on how the D-E Model assisted in making sense of the findings and created a better understanding of the popular SVOD service.

Chapter 6, The Game Changer, is a literature review that initiates the PoGO case study. I consider the history of the mobile phone, handheld gaming, exergaming, Geocaching, *Ingress* and Pokémon, as well as smartphone, digital mapping and AR technologies in order to understand how PoGO came into being, as well as its uniqueness and popularity. This comprehensive history provides the necessary context that has led the AR mobile game to be perceived as a disruptive cultural pheneomenon that I eandeavour to understand in Chapter 7 by unpacking individual user experiences.

Chapter 7, Experiencing Pokémon GO, is an analysis and discussion of participants' experiences with PoGO. The chapter is structured around three key themes: A Cultural Moment, Outdoor Exploration and Integrated Play. I explore the way participants integrated PoGO into their everyday life by unpacking their thoughts, feelings and behaviours since its arrival. I reflect on

how the D-E Model assisted in making sense of the findings and created a better understanding of the location-based AR mobile gaming application.

Chapter 8 is the final chapter of the thesis. In this chapter I reflect on how the initial aims and objectives of the thesis were met by reviewing key findings, explaining the contributions of the project in addition to suggesting areas for further research and thoughts about the future.

2
Disruption

2.1 Introduction

This chapter interrogates the concept of disruption, reviews the loose and overextended way in which the term is used to describe emerging technologies, discusses the absence of research involving the user experience of disruptive technologies and proposes an original framework, the Disruption-Experience Model (D-E Model) for addressing these gaps in knowledge. The origin of the term, disruption, indicates something negative and damaging, but over the past two decades it has frequently been a slogan and descriptor for any emerging idea or technology (Christensen, 1997; Sood & Tellis, 2011; Moazed & Johnson, 2016; Bloomfield, 2016; Chen & Han, 2019). User experiences of disruptive technologies are not entirely absent from the dominant discourse, but they are largely framed around data trends and generalisations of consumer practice of which the details are seldom published (Turnbull, 2014; Roy Morgan, 2019; Venture Insights, 2019). There is thus a need for more nuanced discussions of disruptive technologies, which led to the development of the D-E Model. The model is an original conceptual framework for exploring and explaining how disruptive technologies are actually felt at the ground level by individual users. In this chapter I explain the three core concepts of the model—stabilisation, destabilisation, and transformation—which provide a vocabulary for inspecting individuals' experiences with disruptive technologies. The model aims include the perspective of the user and help illustrate that disruptive technologies do not necessarily suggest negative experiences.

2.2 Exploring Disruption

Since the turn of the century, the term 'disruption' has undergone a semantic shift and become closely associated with technological change (Christensen, 1997; Bailey, 2014; Daley, 2015; Bloomfield, 2016; Chen & Han, 2019). Discourse around disruption is typically centered around business products, services, technologies and practices that have had transformative implications for industries (Kleiner, 2013; Riddell, 2015; Horn, 2016; Moazed & Johnson, 2016; Chapman, 2016a; Bloomfield, 2016; Idato, 2017; Campbell, 2018; PwC Australia, 2018b; PwC UK, 2018; Chen & Han 2019). These conversations are stimulated by media outlets, conferences, journals

and books across finance, marketing, technology, entertainment, transport, journalism, education, communications and academia (Rutz, 2010; Allworth, 2011; Henry, 2012; Sood & Tellis, 2011; Moreau, 2013; Lepore, 2014; Daley, 2015; Riddell, 2015; LeVine, 2015; Henry, 2016; Baalbaki etl. al. 2017). The original model that will be used to unpack user experiences of Netflix and PoGO in this thesis is based around the concept of disruption—because both of these technologies have been labelled as disruptive—therefore it is necessary to explore the origins of the term and how it is currently used and understood.

2.2.1   Etymology & Definitions

Disruption is a kind of change, but it signifies something more intense. The etymology of disruption and recent definitions of the term frame disruption as a negative or damaging experience. The *Online Etymology Dictionary* (2021) notes that the word disruption derived from the Latin term 'disruptionem', a past participle stem of 'disrumpere' from the fifteenth century; a verb meaning to "break apart, split, shatter, break to pieces" (para. 1). In the *Oxford Dictionary of English* (ODE), Stevenson (2015b) defines disruption as a disturbance or problem interrupting an event, activity or process. Waite (2012) in the *Oxford Paperback Thesaurus* deepens this understanding, emphasising that to disrupt is to interfere, unsettle, and throw into confusion or disarray.

Seeking a definition for disruption in different industrial or philosophical fields will render varied evolutions of the term. For example, in the *Concise Oxford Dictionary of the Christian Church*, the term disruption represents a historical event in which there was a schism within the Established Church of Scotland (Livingstone, 2014). The event has been recorded as 'The Disruption', 'The Disruption of 1843', 'Disruption Day' and 'The Disruption of the Church of Scotland'. The term, disruption, has been front and centre in descriptions of the event, to emphasise its divisive nature, aligning with the term's etymological roots of splitting and breaking apart (Miller & Wylie, 1881; Withrington, 1993; Buchanan, 2010).

Comparatively, the *Dictionary of Construction, Surveying and Civil Engineering* is congruent with the ODE's description of disruption, as "events that occur that cause events to be delayed and/or to run out of sequence" (Gorse et. al., 2020, para. 1). This definition highlights discontinuity as a characteristic of disruption, which might involve slowing down, being derailed or disordered. The notion of interference is also emphasised elsewhere. For example, according to Porta and Last (2018) in the *Dictionary of Public Health* (2007), endocrine disruptors are chemicals that interfere with hormone systems in humans, which can cause developmental

disorders and various health problems including risk of diabetes and some types of cancer. Based on all of these definitions and history of the term, the connotations of disruption appear to be negative.

2.2.2   *Marshall McLuhan*

There is a longstanding association between technological change, transformation and disruption, which can be traced back to the work of Marshall McLuhan. McLuhan made a significant contribution in the media studies discipline, writing and speaking a great deal on technological change in the 20th century (McLuhan, 1964; McLuhan & Morley, c. 1960; McLuhan & Lapham, 1994). Media studies is concerned with exploring how media change us and how we change media over time, by focusing on the complex interplay between humans, technology and media (Milberry, 2016; Adams & Thompson 2016). McLuhan considered all human tools and technologies to be direct extensions of the human body; the wheel to the foot, the book to the eye, the clothes to the skin and electrical circuitry an extension of our central nervous system (McLuhan, 1964; McLuhan & Morley, c. 1960; Chandler & Munday, 2020b).

McLuhan's (1964) most recognised observation was that a medium or technology is a tool that sends a 'message', which is the changing scale, pace or pattern following its introduction. When a new technology is introduced, content from the old medium is reformatted to create new possibilities and experiences. McLuhan (1964) argued that technology adoption was experienced through a 'creative process of knowing', as our senses are continually extended (cited in McLuhan & Morley, c. 1960).[6] In this way, he considered new media as having a transformative influence on both society and the human psyche (Chandler & Munday, 2020b).[7] However, McLuhan (1994) also spoke of the "disruptive impact" of this process, associating disruption with the speed of change as he noted "acceleration beyond a point in any system becomes disruption and breakdown" (cited in McLuhan & Lapham, p. 26; 98). Consequently, McLuhan believed that people are afraid of new media and sense that the changing environments they create are hostile and threatening to their whole existence (cited in McLuhan & Morley, c. 1960).

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[6] McLuhan observed that it is more comfortable, gratifying and secure, for people to live in an environment inhabited by old media, instead of adapting to a 'modern suburbia' (cited in McLuhan & Morley, c. 1960). McLuhan (1964) claims that the resistance of new media will become increasingly challenging for people as technology accelerates more quickly.

[7] Mark Hansen (2015) builds on McLuhan with his observation "human experience is currently undergoing a fundamental transformation caused by the complex entanglement of humans within networks of media technologies…" (p. 5).

2.2.3   Social Disruption Theory

Social disruption theory is a sociological framework that emerged in the 1980s and again associated the term disruption with the speed of technological change.[8] Social disruption theory accounts for major transformations caused by rapid population growth or accelerated economic, environmental, political or technological changes, causing a breakdown or dysfunction of existing social certainties and foundational aspects of life (England & Albrecht, 1984, p. 231). Specific characteristics of social disruption include increased crime, severe tax increase on goods and services, alienation and confusion of individuals, negative impact on existing businesses, loss of a sense of community, severed social ties and increased stress, and even increasing mental illness, child abuse, juvenile delinquency, high suicide rates and high divorce rates (Park & Stokowski, 2008).

Technological change can enhance the social and economic wellbeing of society—this is why it is also referred to as technological progress—but social disruption theory acknowledges there can be problems caused by rapid growth (Ibrahim, 2012). Social disruption theory uses the term disruption to represent the negative and damaging consequences of accelerated technological change. However, it also implies disruption is a transformation of the status quo, which demonstrates a bridge toward how the term is used today. The reason emerging technologies are frequently described as disruptive is because of their transformative qualities, and this is represented by the term innovation.

2.2.4   Disruptive Innovation Theory

The introduction of Disruptive Innovation Theory (DIT) by Clayton Christensen in his book *The Innovators Dilemma* (1997) spawned the interchangeability of the terms 'disruption' and 'innovation' by business managers, journalists and academics. Christensen has been referred to as the 'dean of disruption' and was regarded as a world expert on innovation, growth and management thinking (Denning, 2016; Schmitt, 2016). Christensen proposed DIT as a means to account for competitive response in business for any and every industry in the West, with his research primarily focused on technology companies in the United States. DIT has been tremendously influential among entrepreneurs, business managers and scholars who sought to

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[8] Musa Jega Ibrahim (2012) describes technological change as "...changes in the quality and quantity of knowledge and ideas that are applied in the stream of activities to enhance the social and economic well being of the society. Technological change occurs through the process of invention, innovation and diffusion that leads to the transformation of ideas and knowledge into tangible products that have high utility value to human needs" (p. 3).

understand new and potentially threatening technologies (Christensen et. al., 2001; Sood & Tellis, 2011; Adema, 2014; Christensen et. al., 2015; Denning, 2016).

Christensen (1997; 2015) formed a criteria for identifying whether a technology is disruptive or not. A disruptive technology or innovation according to Christensen et. al. (2015) is when a company with fewer resources and a low quality product, initially perceived as non-threatening, is able to critically challenge incumbent businesses (p. 46).[9] This process can happen quickly or slowly, diverging from McLuhan and social disruption theory, in which accelerated change is closely associated with disruption. Christensen (1997; 2015) observes that in business, the pace of change is not as significant as these other indicators. This will be exemplified when discussing the trajectory of Netflix in Chapter 4. In addition, Christensen (1997) believes that sustaining innovations, which are technologies that build on and improve established products in mainstream markets (and are not disruptive), can also be incremental or rapid. The smartphone market we see today, where new smartphones are released year after year, is an example of sustaining innovation (Wessel & Christensen, 2012). This line of thinking suggests that while the speed in which a technology arrives and is adopted may be relevant, it need not be a defining characteristic of disruptive experiences.

People label products and services 'disruptive innovations' even when they do not fit into the DIT framework, which Christensen et. al. (2015) believes is misleading because it is an incorrect application of the phrase. Christensen has confirmed Netflix is a disruptive innovation according to his theory (Christensen et. al., 2015). Other scholars, bloggers and entrepreneurs have referred to PoGO as a disruptive innovation, although Christensen never endorsed this view or spoke publicly about PoGO (Linkner, 2016; Butcher et. al., 2019; Barros & Lopes, 2019). Another example is Uber, which is often described as a disruptive innovation, but Christensen et. al. (2015) argues it does not qualify because it did not meet the DIT criteria. According to Christensen, Uber did not originate in a low-end or new market foothold and it was not initially perceived as inferior to taxis by taxi customers. However, Moazed and Johnson (2016) dispute both of these claims and assert Uber is a disruptive innovation, critiquing Christensen's analysis. Evidently, there are different discourses and narratives that contribute to the way in which new technologies are perceived as disruptive. Both Netflix and PoGO have been described and labelled as disruptive for a number of reasons, which will be explored in Chapters 4 and 6.

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[9] In business, an incumbent is an established and successful product or company operating in a market (Hashimzade et. al., 2017).

Disruption

Notwithstanding Christensen's specific framework for identifying disruptive technologies, a 'disruptive technology', 'disruptive innovation' or 'digital disruption' is largely recognised as a superior product or service based on a new technology that significantly threatens, changes or replaces the ways industries and businesses operate and may also expand consumer markets or reshape consumer behaviours (Chandler & Munday 2020a; Doyle, 2016; Smith, 2019; Bailey, 2014; Solis, 2014; Waters, 2015; Bloomfield, 2016; Daley, 2016; Horn, 2016; Idato, 2017; Stingemore, 2017; Campbell, 2018; PwC UK 2018; Turner, 2019a).[10] When I use the term 'disruptive technology' in this thesis, I am referring to this definition. However, I also acknowledge that disruption is often used as a buzzword across technology, journalism and economic sectors when describing or referring to the impact of new technologies and their competitive value (Stewart, 2014; Riddell, 2015; Doyle, 2016; Moazed & Johnson, 2016; PwC Australia, 2018b; PwC UK, 2018). Throughout the thesis, I use both of the phrases 'technologies that have been perceived as disruptive' and 'disruptive technologies'. This is because the disruptive technology label often tells one story—the story of a technology's impact on industries—which does not include the everyday experience of users.

The frequent juxtaposition of the terms technological change, disruption and innovation over the past few decades, demonstrates that the concept of disruption has been reimagined from a damaging disturbance to an opportunity for transformation. Disruption and innovation each have distinct etymologies, but they both represent discontinuity; both refer to a break of tradition, or a change in direction. Innovation often represents newness, novelty, revolution or transformation (Stevenson, 2015e; 2015f; Hoad, 2003b). As we have seen, disruption as a noun is known as a disturbance or problem, which somewhat counter these ideas around innovation. However, the *Oxford Dictionary of English* (ODE) defines the adjective 'disruptive' as an event that is "innovative or ground-breaking", which aligns with the concept of innovation (Stevenson, 2015c, para. 1). Indeed, in the *Dictionary of Marketing*, Doyle (2016) explains that 'first movers' and technological innovations in particular can cause discontinuities that lead to radical changes in a market.[11] Evidently, the concept of disruption has transcended its initial negative interpretations.

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[10] The term 'digital disruption' is also used to describe instances when technologies bring new opportunities that lead to transforming and reshaping entire industries (Stingemore, 2017).
[11] In the *Dictionary of Marketing*, Doyle (2016) refers to first movers as the "first significant company to enter a new market in a substantial way, often with a new service or product that has no previous track record" (para. 1).

2.2.5   *Creative Disruption & Self-disruption*

Creative disruption refers to employing creative strategies to instigate novel performances, meanings and ideas, and self-disruption is the practice of intentionally creating short-term discomfort for long-term success. Both of these concepts have contributed to the semantic shift in the perception of disruption from inherently negative and damaging to ground-breaking and innovative.[12] Chris Chapman (2016a) suggests that disruption may be dangerous and daring, but also path-breaking and rewarding.[13] Disruption is thus often encouraged and considered a necessity for keeping industries, markets, employers and students invigorated, competitive and inspired.[14]

Creative disruption has various meanings and applications, but the essential idea is that disruption is an opportunity for creativity and innovation that can challenge established ideas or processes. The concept of creative disruption is reflective of 'creative destruction' in economics. Janneke Adema (2014) asserts that the term disruption originated in economic theory with Karl Marx, as the notion of capitalist development occurring due to "the creative destruction of the previous economic system" (para. 2). Economist Joseph Schumpeter adapted the concept of creative destruction to reference the cycle of innovation in business, which might explain why discourse around disruption is so often connected to an economic framework (Schumpeter, 1942; Sood & Tellis, 2011, p. 339; Clarke, 2017). John Hartley (2012) refers to creative destruction as a feature within both the humanities and evolutionary economics:

> The agent of renewal—the trickster in one tradition, entrepreneur in the other—is the 'go-between,' who exploits the very differences between systems to make possible new meanings, even as they disrupt and challenge existing meanings (Hartley, 2012, p. 15).[15]

Creative destruction overlaps with the concept of self-disruption. The 'agent of renewal' referred to by Hartley in the extract above can be fittingly described as a self-disruptor (Hartley, 2012).

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[12] A semantic change, shift or progression refers to the evolution of word usage, most notably when its modern meaning is partially or radically different from the original usage (Matthews, 2014).

[13] 'Rewards' associated with disruption might be the initiation of new ideas and innovations and the opening up of new markets and cultures, or reinvigorating existing ones.

[14] Strategies for leaning into disruption have become valuable tools for improving overall business performance (Kleiner, 2013; Clarke, 2017; Leinwand & Mainardi, 2017) .

[15] This agency of disruptive renewal represents Hartley's 'cultural science', a passageway bringing the humanities and the sciences into mutual dialogue (Hartley, 2012).

Self-disruption is the notion that businesses should not just be effectively responding to disruption, but instigating it. Self-disruption involves leaning into disruption for a transformative result, and businesses do this in a number of ways. Generating a sense of urgency, having diverse voices, quickly adopting emerging technologies and having a clear vision is paramount (Kleiner, 2013; Clarke, 2017; Leinwand & Mainardi, 2017). This process can be uncomfortable, as people are expected to operate in a constant state of flux—but that is the point (Clarke, 2017). Clarke (2017) explains that 'hurting' your business in this way is part of embarking upon a transformation.[16] Chapter 4 will explain how Netflix applied the practice of self-disruption, bolstering its label as a disruptive technology.

Creative disruption is useful for thinking about the experience of users; it is a tool used in various industries to promote transformational change by encouraging innovation and new meaning-making (Rutz, 2010; Ingle, 2015; Sarto, 2015). In marketing, creative disruption is a decade-old term used to describe a desired shift in the behaviour of a target audience, in response to a highly creative product or message (Sarto, 2015). Leyla Acaroglu (2016) acknowledges that the design of products and services powerfully influences our experiences. Acaroglu established the 'Disruptive Design Method', which involves "intentionally disruptive creative interventions that are functionally imbued with the objective of challenging the status quo and making positive change." (para. 7).[17] In education, creative disruption is a teaching technique, which includes exercises to stimulate innovative thinking. Entrepreneur, author and keynote speaker on innovation Josh Linkner describes creative disruption as a method for teaching music (cited in Ingle, 2015). For example, a teacher might remove a number of strings from a guitar and request the student to perform a piece using only what is left. The purpose is to "push the boundaries of imagination and technique and to transform their playing beyond the ordinary" (Ingle, 2015, p. 2). Self-disruption and creative disruption suggest that augmenting and transformative outcomes are now part of the experience of disruption.

2.2.6 Surviving Disruption

The concept of 'surviving disruption' refers to how disruption is navigated across industries, but it is also a window into understanding how intense changes might be experienced on an individual level. The term 'survival' is frequently used in reference to economic performance in the face of

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[16] Business leaders are not just encountering dramatic changes, they are required to be the leaders of the next revolution (Clarke, 2017).

[17] In Acaroglu's (2016) Disruptive Design Method, disruption refers to the active intervention and deep investigation of a problem arena in order to understand what needs to be addressed.

disruption (Henry, 2012; Wessel & Christensen 2012; Campbell, 2018). Kai Riemer believes disruption is profoundly distinct from technological change when it is unpredictably path-breaking, "it is not a linear extrapolation of the past, it is not a change that we could predict" (cited in Chapman, 2016a, p. 48). The idea that technological change is linear, but disruption is not, needs clarification. Consider Christensen's (1997) distinction between sustaining and disruptive technologies, whereby sustaining innovations "[reinforce] established trajectories of product performance improvement", which indicates linear change. While Christensen has not explicitly identified nonlinearity as a defining characteristic of disruptive innovations, others have suggested this idea (Hung & Lai, 2018; Camacho, 2018).

The unexpectedness of disruption is why anticipating, planning and strategizing for the arrival of disruptive technologies is a priority for almost any industry, business or government in order to survive (Christensen, 1997; Sood & Tellis, 2011; Henry, 2012; Wessel & Christensen 2012; Kleiner, 2013; PwC 2015; PwC 2018b; Campbell, 2018). Survival does not just mean eking out existence; rather, survival in this framework is based on economic practices for financial success, driven by popularity, revenue, profitability, stock value, and so on. In business, surviving disruption is a proactive and often collective feat whereby new strategies and practices are tested so that organisations do not collapse (Murdock & Leistritz, 1979; Ballard & Copp, 1981; Shulevitz, 2013; Moazed & Johnson, 2016). This is pursued through strategic change management experts, who are called upon to develop, refer or implement strategies to mitigate the unease of accelerating technological change (Utterback, 1994; Balogun & Hailey, 2004; Botha et. al., 2008; Muller, 2012; PwC Australia, 2018a; 2018b).[18] There is an invigoration of social networks and a use of existing tools, knowledge, skills and practices to make sense of changes and identify if and how they might be disruptive (Wessel & Christensen, 2012; PwC 2015; Dial & Storkey 2017; Clarke, 2017).

Business leaders tend to agree that continuous adaptation to emerging technologies creates progress and momentum that helps achieve stability within an organisation (Utterback, 1994; Balogun & Hailey, 2004; Ackhoff, 2006; Botha et. al., 2008; Muller, 2012; EY, 2015; PwC Australia, 2018a). Businesses cannot avoid the threat of disruptive technologies, so they must persistently work to 'keep up' with emerging innovations to remain stable. This means businesses

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[18] There is an entire profession, strategic change management, which has become increasingly critical as organisations navigate growth through persistent technological change (Utterback, 1994; Balogun & Hailey, 2004; Botha et. al., 2008; Muller, 2012; PwC Australia, 2018a; 2018b).

who wish to be successful seek to always be in a position where they are ready to modify how they operate so that they can keep operating.

In terms of individual users, it might be too dramatic to talk about 'surviving' technologies like Netflix and PoGO. Technology users are not always anticipating disruption, otherwise they simply would not use them. However, the idea that users can experience a sense of stability through ongoing progress or adaptation is significant and discussed later in this chapter when itnroducing the concept of stabilisation in the D-E Model.

2.2.7   *Moral Disruption*

Robert Baker (2013) brings another layer to the discourse on disruption in his book *Before Bioethics* and begins to close in on the user experience of disruptive technologies in medicine. While discussions of disruptive technologies typically focus on the performance of new technologies in terms of how they change the way industries operate and survive, Baker considers whether disruptive innovations are morally or ethically disruptive for the people working in those industries. Drawing from Christensen's (1997) theory in which there are disruptive versus sustaining innovations, Baker (2013) observes that new technologies are disruptive when they undermine established moral norms or ethical codes as opposed to sustaining them (p. 59).

Baker (2013) specifically looks at the implications new technologies have for the ways medical practitioners—users of these technologies—do their jobs. For example, Baker identifies that even though antibiotics were revolutionary for the industry, they were not disruptive for practitioners because "it sustained existing patterns of healthcare delivery requiring no greater change than substituting one type of pill for another" (p. 58). In contrast, Baker (2013) believes the invention of ventilators—a device to assist breathing—was morally and ethically disruptive. When ventilators were administered to keep the heart and lungs functioning in a brain-dead comatose patient, for example, physicians did not know how to provide further care. This causes a moral quandary because medical professionals take an oath to preserve life; would it be moral to turn off the ventilator or declare the patient dead? Baker discusses the introduction of antibiotics, vaccines and ventilators in the context of medical morality and ethics that guide the practice of students, physicians and other professionals in the field of medicine. Certainly, investigating the ways new technologies impact day to day operations, shape industries and change laws is very important and necessary. While Baker is concerned with the implications for the industry, like the amendment of existing medical codes and ethics, included in his discussion is the experience of doctors, interns and patients, the people for whom the technologies are designed.

Focussing on individual user experiences remains critical to the development of industries and societies yet their inclusion in the scholarship on disruptive technologies is limited. Drawing from Baker's (2013) focus on morality and ethics, more recently Philip Nickel (2020) sought to understand the impact of disruptive medical technologies on "individual moral agents" and societies through moral uncertainty (p. 259).[19] Both Baker (2013) and Nickel's (2020) work on moral disruption deviates from DIT, which demonstrates the utility of new and different frameworks to look specifically at individual users of emerging technologies. Despite this research not being centered around media technologies, Baker's interpretation of disruptive versus sustaining innovations remains applicable. Delving into a user's morality and ethics is beyond the scope of this thesis, although I did find value in exploring whether established practices are being undermined or sustained among individual Netflix and PoGO users in Australia.[20]

2.2.8   The Absence of the User

New technologies change how people think, work and live, so attempting to map their trajectories is of interest for scholars in science, the humanities, business and finance (Utterback, 1994; Botha et. al., 2008; Sood & Tellis, 2011; Muller, 2012; Brokaw, 2015; Kahl & Grodal, 2016; Fagan, 2017). Yet, there is a need for more academic research with an anthropological dimension in order to account for the ways people are engaging with contemporary media (Pertierra & Turner, 2013, p. 27). Annette Hill explains "engagement is more than capturing the attention of audiences, it is making a connection, and in some cases making a real difference to people's lives" (cited in Hill et. al., 2017, p. 8). I use the term engagement to represent the set of relations that exist between users and media technologies. As Elizabeth Evans (2020) notes, engagement suggests "something more than simply watching" (p. 2).

The most useful frameworks for understanding user experiences in this way fall within audience studies, as communications and cultural studies scholars endeavour to interpret the times, places and ways users interact with and make sense of their experience with everyday media technologies as a matter of broad social concern (Turnbull, 2006, pp. 81–82). Sociologist Stuart Hall (1973)

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[19] Philip Nickel (2020) developed a philosophical account of moral disruption with regard to technological developments in medicine.

[20] I use the phrase 'established practices' to refer to the habits and behaviours people have been engaging in prior to the arrival of the disruptive technology in question.

theorised that audiences decoded meanings from media texts, and McLuhan (1967) observes there are no meanings except for the ones we make, whereby "the reader is the co-creator" (p. 166). This large body of research has shifted our imaginations of users from passive receivers to active 'produsers'; active agents that continually reformulate their engagement with media in time and space (de Certeau, 1984; Pertierra, 2017a).[21] This research has significantly helped us understand the complex and dynamic relationship users partake in when they engage with media technologies everyday (Bruns, 2006; Jenkins, 2006; Turnbull, 2006; 2014; Pertierra & Turner, 2013; Turner, 2019a). However, there is insufficient documentation for understanding the cultures of use that are emerging as the options for users continue to grow (Gray, 2017; Turner, 2019b).

In media industry research, discussions of disruptive media technologies are dominated by their economic trajectory and performance, which does little to indicate the experience of individual users. The earliest noted attempt for understanding the impact of new technologies on incumbents in business was the theory of S-curves by Richard Foster in 1986, also referred to as the Technology Life Cycle (Sood & Tellis, 2011). The S-curves theory predicts that if incumbents miss out on implementing new technologies, they are likely to fail and be overtaken by competitors who have not (Foster, 1986; Sood & Tellis, 2011, p. 339). The Gartner Hype Cycle is another framework that conceptualises the evolution of technology, for the purpose of gaining strategic insight to solve real business problems (Gartner, 2020; Chen & Han, 2019).[22] DIT, the theory of S-curves and Gartner's Hype Cycle are popular models for anticipating, forecasting and understanding disruptive media technologies and innovations from an industry perspective (Dalum et. al., 2002; Mordechai, 2015; Cunningham, 2019; Adamuthe & Thampi, 2019; Chen & Han, 2019). However, they do not account for the user experience; something disruptive in the context of business may not be disruptive at the same time or even ever for users—just like in Baker's (2013) example with the emergence of antibiotics.

Because disruptive technologies are thought to expand consumer markets and influence consumer practice, knowledge about media users often comes from media industry research seeking insight into consumer behaviour (Chandler & Munday, 2020a; Bailey 2014; Solis, 2014; Doyle, 2016a;

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[21] Axel Bruns (2006) and Henry Jenkins (2006) use the term 'produser' to refer to the merging or blending of the producer and consumer in a networked environment, completely reconfiguring the role and meaning of users and audiences.

[22] The Gartner Hype Cycle is a graphical and conceptual presentation of emerging technologies through five phases, designed by the American IT firm, Gartner. It is not actually cyclic, but more accurately described as a hype curve model (Gartner, 2020).

Smith, 2019).[23] Indeed, user experiences of media technologies are not entirely absent from the dominant discourse, but they are largely framed around data trends and generalisations of consumer practice to determine and forecast market leaders and user spending (Roy Morgan, 2019; Venture Insights, 2019). In the context of Netflix and PoGO, user experiences are primarily discussed in terms of their quantitative measurements across several key aspects: how many people are using streaming services or playing AR mobile games, what exactly they are watching or playing, the frequency and duration of usage and what people are likely to spend more money on (Iqbal, 2020; 2021a; 2021b; Roy Morgan, 2019; Venture Insights, 2019; ActivePlayer.io, 2021).

Investigating how users relate to products and what they mean to them is likely involved in media industry research, but these qualitative insights are "unlikely to be published" (Turnbull, 2014, p. 65). Turnbull (2014) points out that "media industries don't always want their competitors to know what they know about their audiences" (p. 65). Indeed, market research company Roy Morgan conducts thousands of in-depth interviews with Australians in their homes every year regarding their television habits. Their public reports do not tend to detail everyday minutiae, but broader conceptions of consumer practice. For example, Roy Morgan (2019) reported that Netflix is accessed by more than half of the population making it the market leader in Australia, and also revealed that people tend to subscribe to multiple SVOD services.

Similarly, research institute Venture Insights conducted a survey in Australia in April 2019 to determine consumer preferences and trends in mobile gaming. The findings revealed that mobile gaming users are increasing, anticipating more AR and virtual reality (VR) games, and are willing to pay a premium for 5G services and handsets compared to smartphone users who do not play mobile games (Venture Insights, 2019). This information is extremely useful for companies; it tells game designers, content producers and telecommunications providers what services people want and what they are willing to pay for. However, this does not help us effectively capture experience. Pertierra and Turner (2013) argue that new media "need to be understood within the structure of everyday life", which involves "attention to the domestic micro processes of habit and behaviour" (p. 27).

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[23] For media industries, an audience is viewed as a consumer or market that generates income (Turnbull, 2006, p. 81–82).

User experience research, also known as UX research or design research is an example of 'applied anthropology' in the technology sector and is typically qualitative with some quantitative aspects to assist the process of designing user experiences (Interaction Design Foundation, 2019; Fleming, 2019).[24] UX research focuses on investigating people's behaviours, motivations and requirements in order to design a suitable product or experience, however, like market research, these insights are unlikely to be made public (Interaction Design Foundation, 2019; Fleming 2019). The term UX is typically shorthand for how a user feels when they are interacting with a system's interface (Stevenson, 2015k). I am interested in more than this. Utilising the perception of users as active participants, when I use the term user experience in this thesis, I am referring to the thoughts, feelings and behaviours of individuals as they integrate new technologies into everyday life.

Research around media users is important but challenging. Media are perceived as "central to our experience of ourselves and the world" as we inhabit ever-evolving mediated environments (Turnbull, 2006, p. 79). However, researching the behaviours and practices of new media audiences is becoming increasingly difficult because they are continually reshaped in response to technological change, impacting the services provided and the manner in which they are used (Turner, 2019a).[25] For example, the *Australian Cultural Fields* (ACF) project is the most recent and relevant body of qualitative research around how Australians use television and Netflix. The ACF was led by Tony Bennett and contributed to by Graeme Turner. It began with a questionnaire, distributed to 1400 Australians in 2014, and follow-up interviews with 45 participants between 2016 and 2017 (Turner, 2019a; 2019b). The follow-up interviews were intended to allow respondents to elaborate on answers from the questionnaire. Of course, Netflix had arrived in 2015, and thus the interviews revealed there was a significant shift in how television was being consumed in Australian homes and contributed to its label as a disruptor (Turner, 2019a; 2019b; Bennett et. al., 2020). Turner (2019a) insists there is a need for more research to improve our knowledge of viewing experiences in Australia.

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[24] According to the International Organization for Standardization (2019), user experience refers to all of the "perceptions and responses resulting from the use and/or anticipated use of a product, system or service", which is "a consequence of brand image, presentation, functionality, system performance, interactive behaviour and assistive capabilities of the interactive system" (para. 3.15). This understanding of user experience is the standard for proprietary, industrial, and commercial organisations.

[25] In media studies, the investigation of 'new media'—the introductory period of an emerging (often digital) technology—is thought to be a "timely and culturally important task" (Gitelman & Pingree, 2003: xi).

There is currently no comprehensive model to account for the user experience of disruptive media technologies in the media and communications discipline. There already exist theories and concepts—DIT, self-disruption and creative disruption—for explaining what disruptive technologies might mean from an industry perspective (Christensen, 1997; Rutz, 2010; Sood & Tellis, 2011; Ingle, 2015; Sarto, 2015; Chapman, 2016a; Clarke, 2017). There are frameworks for understanding the trajectory of emerging technologies, like the S-curves model and Gartner's Hype Cycle (Foster, 1986; Dalum et. al., 2002; Mordechai, 2015; Cunningham, 2019; Adamuthe & Thampi, 2019; Chen & Han, 2019). Social disruption theory and moral disruption suggest that a breakdown of norms is part of the experience of disruption (England & Albrecht, 1984; Park & Stokowski, 2008; Baker, 2013; Nickel; 2020). Media, communication and audience studies certainly assist in bringing us closer to the user with approaches for investigating experience (McLuhan, 1967; Hall, 1973; Pertierra & Turner, 2013; Pertierra, 2017a; 2017b; Turner, 2019a). However, we still do not have a clear sense of what individual users think or feel and what drives their daily practices as they engage with technologies that have been labelled as disruptive. This thesis seeks to address the gap of knowledge by talking to people and interpreting their stories with an original analytical framework in order to fill out the picture of disruptive technologies.

2.3 The Disruption-Experience Model

The D-E Model is an original framework for exploring and explaining how disruptive technologies are felt at the ground level by individual users. The model aims to provide a more nuanced discussion of disruptive technologies by illustrating that disruption is not entirely negative or business-centric; it can mean different things and indicate different experiences.

The D-E Model emerged as a result of the different ways disruption and technological change is understood; as both negative and damaging and positively transformative. The phrase 'disruptive technology' has become shorthand for this duality among academics, journalists, bloggers, policymakers and employees in business, media, technology and communications fields and industries (Christensen, 1997; Christensen et. al., 2001; Rutz, 2010; Allworth, 2011; Henry, 2012; Henry, 2016; Sood & Tellis, 2011; Moreau, 2013; Lepore, 2014; Daley, 2015; Riddell, 2015; Bloomfield, 2016; Chapman, 2016a; Baalbaki etl. al. 2017). Indeed, disruption has become a vacuous, jargonistic concept that frequently appears in conversations about the impact of new technologies on industries and consumer behaviour (Bailey, 2014; Daley, 2015; Riddell, 2015; Moazed & Johnson, 2016; Bloomfield, 2016; Chapman, 2016a; Bloomfield, 2016; PwC Australia, 2018c; PwC UK, 2018; Chen & Han 2019). However, there is no specific model for

examining how disruptive media technologies are experienced by individual users. After identifying this gap in the literature and recognising that disruption no longer means one thing, I developed the D-E Model by drawing on both the literature on disruption and empirical evidence gathered from Netflix and PoGO users.[26]

The D-E Model includes three core concepts that help explain individuals' experiences with disruptive technologies: stabilisation, which is a sustaining experience whereby thoughts, feelings and practices are reinforced; destabilisation, which is a dysfunctional experience whereby thoughts, feelings and practices are undermined; and transformation, which is a novel experience whereby thoughts, feelings and practices are dramatically shifting. These principles that fall within each core concept are significant because they build on common motifs throughout the literature and discourse around technological change and disruption. These ideas were then refined as I tested them with empirical evidence. This allowed me to establish a robust model for making sense of user experiences within the framework of disruption. The principles in the model provide investigative cues, as I endeavour to demarcate the different experiences people are having when integrating a new technology that has been perceived as disruptive into daily life. While these concepts may interconnect, they are not linear stages or phases but rather vehicles for exploring different aspects of the user experience.

2.3.1 *Stabilisation*

Stabilisation represents a sustaining experience, which draws from Christensen's (1997) thoughts on innovation, whereby he identifies "most new technologies foster improved product performance. I call these sustaining technologies" (p. 11). Aside from recognising that customers often value new technologies that are cheaper, simpler, smaller and more convenient, Christensen (1997) is mostly concerned with thinking about the implications of new technologies from a business perspective. Specifically, he explores how innovations—whether sustaining or disruptive—precipitate the failure of established companies. I diverge from Christensen's thinking in two ways. First, I am focussing on the user experience and not the survival of businesses, in line with the objectives of this project. Second, I do not speak of sustaining technologies but sustaining *experiences* that occur when users engage with a technology. The reason for this is to acknowledge that a technology does not completely determine what a user

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[26] This section does not include the empirical material as it forms the analysis and discussion of Netflix and PoGO in Chapters 5 and 7, respectively.

will experience. User experiences are influenced by internal factors like moods, interests, beliefs and capabilities as well as external factors like environment, relationships and lifestyle.

This concept of sustaining experiences is useful for acknowledging everyday user experiences. Sustaining changes may not seem particularly exciting in isolation, but over time it becomes clear that they shape the fabric of our culture and daily life. For example, every smartphone that has entered the market since Apple's first iPhone is a sustaining technology because each model has built and improved upon the one that preceded it (Christensen, 1997). Each change may not have seemed very dramatic at the time, but if we compare the single-lens 2.0 megapixel (MP) camera from the 2007 iPhone with the 2020 iPhone 12 Pro's triple-lens 12 MP and high dynamic range (HDR) camera, the changes in between become more interesting, especially in terms of the user experience (Carey, 2021). Improvements in camera phones meant the average person could now take good quality photos and videos, which significantly contributed to the rise of social media networks like Instagram. One particularly important—yet sustaining—change among the 29 iPhone models to date would be the introduction of the front-facing camera. Not only did this initiate selfie culture, but it had notable implications for interactivity and social relationships through remote video chatting and video sharing (Caruso, 2018; Carey, 2021). While a sustaining technology fails to meet the criteria for a disruptive innovation, this does not necessarily mean that it cannot have far-reaching, meaningful implications. Thus, when investigating user experiences, sustaining experiences must be captured in order to create a comprehensive account of specific technological advances.

To identify a sustaining user experience, I consider whether a user's thoughts, feelings or practices are being reinforced in some way. This stems from Christensen's (1997) observation that sustaining technologies build on and reinforce established, well-performing products, and thus they tend to meet and often exceed users' expectations. Just as businesses are willing to adopt new technologies in order to survive, users adapt to new technologies because they are serving them in some way and reinforcing desired habits and behaviours. Stabilisation encompasses the times and the ways users experience a sense of continuity, which is a sense of stability and "the absence of disruption" achieved through continuous action (Stevenson, 2015i, para. 1). Stabilisation is an important part of investigating experience because it brings attention to everyday changes that may not be considered noteworthy or important. This concept of stabilisation is inspired by anthropologists, as they are interested in capturing the mundane, the everyday, for the sake of understanding specific societies, cultures and phenomena at specific moments in time (Geertz, 1973; Hine, 2000; Pertierra, 2017a; 2017b; Fife, 2005).

Disruption

The investigative cue for exploring stabilisation is: are thoughts, feelings and practices being reinforced?

2.3.2   *Destabilisation*

Destabilisation represents a dysfunctional experience, which is derived from the etymology and literature around disruption that suggest it is disturbing and damaging. Various definitions highlight derailment, discontinuity or a break of tradition as characteristics of disruption. For example, McLuhan (1994) uses the term disruption to express the breakdown of a system. Schumpeter's (1942) concept of creative destruction, whereby innovations disturb economic equilibrium by taking down an existing industry, also echoes these connotations of disruption. This is the essence of dysfunction; it is an undesirable deviation from the way things would normally or ideally operate.

To identify a dysfunctional user experience, I consider whether a user's thoughts, feelings or practices are being undermined in some way. Social disruption theory deploys the term disruption to describe the breakdown or dysfunction of existing social certainties (England & Albrecht, 1984, p. 231). Moral disruption similarly uses the term to explain when new technologies undermine established moral norms or ethical codes (Baker, 2013). These frameworks, in addition to synonyms of disruption, suggest a confusing and unsettling experience for individuals. I thus deduce that dysfunction would be signalled by a strong emotional response from the user, because something has deviated from their expectations in a way the user dislikes, is inconsistent with their beliefs about how the technology should operate, or their agency has been compromised.

Building on McLuhan, changes from new media can be hostile to what users believe makes sense (cited in McLuhan & Morley, c. 1960). For example, in 2016 Apple removed the headphone or auxillary (AUX) port from subsequent iPhone models (and MacBook laptops), beginning with the iPhone 7. The decision is consistent with Apple's mission to maintain 'closed', whereby they control and manage their products, software and systems. Conveniently, Apple released their wireless AirPods in the same year (Chamary, 2016). This change was dysfunctional for users of Apple products because existing expectations were unmet; every iPhone upgrade before this one had an AUX port, and Apple had always sold earphones with AUX cords. People were upset because they believed there was nothing wrong with this technology in the first place. TechCrunch editor Greg Kumparak (2018) writes "I'm still mad about it...It was fine. It stood the test of time for one hundred damned years, and with good reason: It. Just. Worked." (para. 10–12). Once

Apple users inevitably upgraded their Apple products, not only were there additional purchases they had to make, but previous purchases became redundant. The change also challenged established behaviours. Drawers full of tangled earphones and expensive headsets were now incompatible with emerging Apple products. The user's agency was not completely stripped away, but it was undermined. They were not forced into a specific behaviour, but they were forced to make a choice: purchase new headphones or abandon Apple altogether?

Destabilisation is shorthand for identifying a dysfunctional experience whereby users' thoughts, feelings and practices are being undermined. Destabilisation encompasses the darker meanings associated with disruption. The consistent thread throughout this literature is this notion of systems, traditions and norms being broken or undermined, and expectations and beliefs being unmet.

The investigative cue for exploring destabilisation is: are thoughts, feelings and practices being undermined?

2.3.3   Transformation

Transformation represents a novel experience, which is based on how disruption has transcended its initial meaning. Throughout this chapter, I explored how the term disruption has undergone a semantic shift from disturbing and damaging to innovative and ground-breaking. The frequent juxtaposition of 'disruption' and 'innovation', in particular, suggests that disruption is embraced as an opportunity for meaningful transformation. The literature on disruption consistently pairs these dual yet overlapping ideas; disruption is used to describe both a 'break-down' and 'shake-up' of a system, process, industry or activity (England & Albrecht, 1984; McLuhan, 1994; Rutz, 2010; Ingle, 2015; Sarto, 2015; Chapman 2016a).

The concept of novelty—a new and unfamiliar change—draws from literature on creative disruption (Stevenson, 2015g, para. 1–2; Rutz, 2010; Ingle, 2015; Sarto, 2015). Schumpeter (1942) observes creative destruction involves the creation of something new to replace and 'destruct' existing structures. This is an example of a transformation, a change from A to B, which dominates literature on disruptive technologies in business (Foster & Kaplan, 2001; Sood & Tellis, 2011, p. 339; Clarke, 2017; Draper, 2018). For example, the look and feel of mobile phones was transformed when the physical keypad was replaced with a touchscreen (Markoff, 2007). Humans are more complex than design choices, however. People do not always immediately replace an expectation, belief or habit with a new one. Thus the D-E Model is not just looking to

draw out transformational experiences. The model aims to reveal the creation of new expectations, new beliefs or new habits and behaviours—irrespective of whether they replace previous ones. This helps capture significant shifts in users' imaginations and lives.

To identify a novel experience, I consider whether users' thoughts, feelings or practices are dramatically shifting. If stabilisation is a continuation or elevation of the familiar, transformation signifies something more intense; it is moving beyond the ordinary. Transformation is evident when the user experience is now profoundly different and is unlike something they have experienced before. I diverge from McLuhan's (1964) technologically determinist view and consider that this 'creative process of knowing' he believes is dictated by technology, may very well be influenced by other internal and external factors.[27]

The investigative cue for exploring transformation is: are thoughts, feelings and practices dramatically shifting?

2.3.4   Reflection

The D-E Model aims to identify different aspects of a relationship; a relationship between a user and a technology that has been perceived as disruptive. To do this, I must acknowledge that the technology does not dictate what the user does. While technologies steer users toward desired behaviours, users bring their own thoughts, beliefs and desires into this relationship, very much influencing how they engage with the technology and how it is integrated into their daily life. The D-E Model recognises that users are active and people "respond to screens not as passive objects pushed around by greater forces but as active subjects…" (Tony Wilson, 2008, p. 1).

The purpose of the three core concepts of this model—stabilisation, destabilisation and transformation—is to reveal different experiences that users of media technologies are having. The concepts are not antagonistic; all three could be rapid or incremental and occur independently or simultaneously. In addition, even though stabilisation indicates sustaining experience, it does not necessarily mean it is less powerful or significant than destabilisation and transformation. Identifying something as sustaining can provide rich insights, particularly when comparing the industry experience to the user experience. For example, the arrival of Uber was extremely

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[27] Sociologists Donald Mackenzie and Judy Wajcman (1985) criticise the "mistaken" theory of technological determinism and instead ask 'What shapes technology?' arguing that perhaps society shapes technology rather than the reverse (p. 4).

threatening to the taxi industry, and resulted in changes in the value, regulation and operation of taxi services (Deloitte, 2016). The tension Uber caused in the industry was not part of the user experience, however, which tells a very different story. In short, Uber improved on the service that taxis provided; a sustaining change.[28]

The D-E Model can make a significant contribution to the media and communications discipline by helping to produce a better understanding of what individual users are actually experiencing when they engage with disruptive technologies. The model heavily relies on individuals' reflective accounts of their habits and practices, in order to gather insight into whether disruptive technologies are actually disruptive in the ways people say or assume they are. The model is a departure from thinking about disruption as a single descriptor of change, reimagining the phenomenon as part of a greater network of experiences. Disruptions are difficult to account for because change means different things to different people, technologies, businesses, industries, cultures, societies. The D-E Model is not a simple explanation or rigid theory with strict principles about what disruption is, but a conceptual framework that reimagines disruption for the purpose of drawing out and making sense of the multiplicitous experiences that users are having.

The D-E Model is not intended to make projections or prognosticate about the future, but provide investigative tools for future scholars wanting to study how users navigate changing circumstances in the presence of disruptive technologies, and what meanings they establish throughout this process.

2.4 Summary

This chapter has reviewed the different ways disruption is understood, examined why focussing on user experiences is necessary and important, and constructed a model for investigating the user experience of disruptive technologies. Disruption has become a hypernym and buzzword for any kind of technological change (Lepore, 2014; Karimi & Walter 2015; Riddell, 2015; Daley, 2015; Bloomfield, 2016; Moazed & Johnson, 2016; Chapman, 2016a; Baalbaki etl. al. 2017). Discourse around 'disruptive technologies' in industry and academia is generally concerned with the impact of new technologies on existing services, business models, and their respective industries

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[28] Uber helps people arrange private transport or a ride-share with a driver in their vicinity, ensures safety for the driver through digital payment and for the passenger through GPS tracking, and offers an internal rating system for both drivers and passengers to measure the quality of experience (Deloitte, 2016).

(Christensen et. al., 2001; Riddell, 2015; Moazed & Johnson, 2016; Chapman, 2016a; Bloomfield, 2016; PwC Australia, 2018b; PwC UK, 2018). User experiences of disruptive technologies are not entirely absent from the dominant discourse, but they are largely framed around data trends and generalisations of consumer practice (Bailey 2014; Solis, 2014; Roy Morgan, 2019; Venture Insights, 2019; Smith, 2019). User experiences of disruptive technologies are thus insufficiently understood.

There is currently no comprehensive or specific model to account for the user experience of disruptive media technologies in the media and communications discipline. There already exist theories and concepts—DIT, self-disruption and creative disruption—for explaining what disruption might mean from an industry perspective (Christensen, 1997; Rutz, 2010; Sood & Tellis, 2011; Ingle, 2015; Sarto, 2015; Chapman, 2016a; Clarke, 2017). Social disruption theory and moral disruption suggest that a breakdown of norms is part of the experience of disruption (England & Albrecht, 1984; Park & Stokowski, 2008; Baker, 2013; Nickel, 2020). Media, communication and audience studies certainly assist in bringing us closer to the user with approaches for investigating experience (McLuhan, 1967; Hall, 1973; Pertierra & Turner, 2013; Pertierra, 2017a; 2017b; Turner, 2019a). However, we still do not have a clear sense of what users think or feel and what drives their daily practices as they engage with disruptive technologies. This thesis seeks to bring more nuance to conversations around disruptive technologies by paying closer attention to the everyday experiences of users as they engage with two entertainment media technologies, Netflix and PoGO, which have been labelled as disruptive for various reasons.

The D-E Model is an original conceptual framework that can make a significant contribution by helping to capture and talk about the different experiences users are having when they engage with disruptive technologies. This analytic account can help go beyond the superficial label of disruption, and reveal how disruptive technologies are actually felt at the ground level by individual users. This chapter has explained key concepts of the D-E Model that emerged from the literature around technological change and disruption: stabilisation, which is a sustaining experience whereby thoughts, feelings and practices are reinforced; destabilisation, which is a dysfunctional experience whereby thoughts, feelings and practices are undermined; and transformation, which is a novel experience whereby thoughts, feelings and practices are dramatically shifting.

The following chapter will detail the methods used to gather and analyse data and explain how the D-E Model has been applied in order to answer the primary research question, 'how can we better understand the user experience of technologies that have been perceived as disruptive?'

3
Methodology

3.1 Introduction

This chapter brings together principles from media ethnography and digital ethnography to form a qualitative methodology for investigating user experiences of two technologies that have been perceived as disruptive; international subscription video-on-demand (SVOD) service Netflix and augmented reality (AR) mobile gaming application *Pokémon GO* (PoGO). The data collection process involved an observation of posts and comments on reddit to get a sense of user experiences, in addition to interviews with Netflix and PoGO users in Wollongong, Australia. The results were interpreted through thematic analysis and analysed using the Disruption-Experience Model (D-E Model).

3.2 Research Approach

This project was inspired by ethnographic methods to explore user experiences of Netflix and PoGO in Australia. These two distinct media technologies operate as case studies, which is helpful for examining contemporary phenomena in depth and understanding their real-world context. Case studies are useful for covering a broad range of contextual and complex conditions relating to the phenomena in order to address an exploratory, descriptive or explanatory research objective (Rowley, 2002; Baxter & Jack, 2008; Yin, 2012). In this thesis, the intention is to produce a richer and more enhanced picture of how disruptive media technologies Netflix and PoGO are experienced on the ground. This is driven by the research question, 'how can we better understand the user experience of technologies that have been perceived as disruptive?'

Ethnography has become a vital part of the toolkit for understanding people's experiences with media technologies (Pertierra, 2017a; 2017b; Hine, 2000). Indeed, ethnography has expanded the notion of the 'user' throughout various fields such as informatics, information studies and design technology (de Certeau, 1984; Dourish & Bell, 2011; Pink et. al., 2016; Pertierra, 2017a). Ethnographic research aims to understand phenomena from the participants' point of view and within their lived environment (Geertz, 1973; Trueba, 1981; Spitulnik, 1993; Hine, 2000;

Pertierra, 2017a; 2017b). Time and place are an important part of this context, so each case study has a national focus and their own temporal frame. The period of focus for Netflix is between March 2015 and September 2018. The period of focus for PoGO is between July 2016 and May 2018. This represents the year each technology arrived in Australia, with enough time for users to reflect on their initial reactions and its incorporation into their everyday life. Information outside of these periods will be included when presenting relevant histories, contexts or succeeding developments. However, the thesis aims to produce a focussed snapshot as part of an analytical technique. This approach draws inspiration from ethnographers, who seek to enclose moments in time in order to analyse them (Pertierra, 2017a).

Media ethnography is a method and field of research that involves uncovering the active choices, interpretations and meanings users produce when they interact with new media technologies (Pertierra, 2017a; 2017b). To understand the user, you need to understand their context—who is doing what, where, when and why?—in order to observe their cultural universe in which they are doing all of this meaning-making or 'decoding' (Pertierra, 2017a; Hall, 1980). Within media studies, users need to be understood in all kinds of contexts outside and beyond the point of consumption, which explains, in part, the emergence of media ethnography. To capture all of the different contexts—the times, the places, the reasons—that people are engaging with media is inconceivable, but every little bit counts (Pertierra, 2017a; 2017b).

Netflix and PoGO are investigated separately so that their own contexts and user experiences can be mapped out and understood. In this project, the context for each case study is explored prior to the analysis and discussion of data, in Chapter 4 for Netflix and Chapter 6 for PoGO. These chapters involve the technological and sociohistorical contexts of Netflix and PoGO in order to understand past and present behaviours and beliefs of industries and users. This also allows us to comprehend their position as disruptive technologies and preface the investigation of user experiences. For example, the context of Australian Netflix users involves looking at the history of television, piracy and binge-watching, which feed into its label as a disruptor and introduces certain viewing practices. In addition to context, the ethnographic principles and techniques that influenced this methodology include duration, immersion, observation, interviews, interpretation and thick description, which are explained throughout this chapter.[29]

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[29] This research project deviated from some traditional markers of ethnography, such as observing communities or cultures radically different from one's own (Spradley, 1980; Pertierra, 2017a).

3.3 Digital Ethnography

Data was collected from the online discussion platform reddit in 2018 to get a sense of Netflix and PoGO user experiences and complement the in-person interviews with Australian users. The procedure is a kind of digital ethnography. In contrast to netnography, which typically focuses on online communities and contexts, digital ethnography can include researching how people are using digital tools and technologies, an analysis of the consequences of digital media use, and also the use of digital tools for analysis (Chandler & Munday, 2020d; Pink et. al., 2016).[30] In this thesis, digital ethnography represents the ethnographically-driven practice of collecting and interpreting data from digital spaces with digital tools (Pertierra, 2017a; 2017b; Hine, 2000). The digital ethnography component in this research project took a triangulating role, as its purpose was primarily knowledge building in addition to extending and complementing offline data collection methods. Data from the digital ethnography informed case study literature, guided interview questions in the case of Netflix and supplemented interview results for both case studies.

3.3.1 Why reddit?

Reddit was chosen because it is a popular site for discussions of digital technologies. It is the fifth most visited website in the United States and 15th most visited site in Australia (Squirrel, 2018; SimilarWeb, 2020). Reddit users spend more time on the platform than Facebook and Twitter users, averaging 15 minutes a day, so they are more likely to engage in discussions (Squirrel, 2018).[31] The primary demographic of reddit users are 18 to 49 year olds, similar to the core demographic of Netflix and PoGO users (Tankovska, 2021; Screen Australia, 2018a; Smith, 2020). In addition, 38 per cent of reddit users are technology enthusiasts, which is higher than Instagram, YouTube, Facebook and Twitter, so people are more likely to use reddit to share their perspectives and talk about their experience with technologies (FoundationInc, 2020). Among social media users, reddit is considered a more reliable source for news than Twitter, Instagram and Facebook (American Press Institute, 2016). Hutchins (2016) believes this is because people posting on reddit have a genuine passion for the topics they talk about, which means what they share is likely to be more authentic and trustworthy. This was important for selecting reddit as a field site, because it enhances the likelihood of observing genuine experiential accounts.

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[30] In ethnography, researchers are in direct presence with their subjects, and when conducting digital ethnography, contact with research subjects is mediated (Pink et. al., 2016).

[31] Facebook users spend approximately 10 minutes on the platform and Twitter users spend approximately six minutes (Squirrel, 2018).

3.3.2   *Digital Fieldwork*

The digital ethnography was conducted for both Netflix and PoGO in March and May 2018. Ethnography is traditionally marked by space (the field) and time (duration in the field) (Pertierra, 2017a). Hine (2000) was an early contributor and guide for conducting research online and argues that ethnographic techniques offer significant value that are relevant and applicable in digital landscapes. Pertierra (2017a) similarly claims that "old fashioned methods can work in newly fashioned places" (n.p.). Digital spaces offer new kinds of field sites, however, they do not alter the basic principles of ethnography; research that is embodied, embedded and everyday (Hine, 2000). The field sites for this digital ethnography were the Netflix and PoGO subreddits. Subreddits are digital spaces that aggregate discussion forums or 'threads' on certain topics on the reddit website.

In terms of duration and immersion, multiple data collection periods were conducted. Even though the duration of the digital ethnography was not long, periods of immersion and intensity of analysis can provide rich experiences and knowledge (Pertierra, 2017a). For Netflix, I observed activity in r/netflix on 16 March and 25 May 2018, which helped inform questions for the interviews I would be conducting later that year.[32] For PoGO, I observed activity in r/pokemongo on 2 March and 11 May 2018. Although this was after the interviews I conducted for PoGO, retrospective reflections of the game's initial arrival and integration period was useful to compare with my interview data. At the time of data collection, the subreddits r/netflix and r/pokemongo had 247 thousand and 878 thousand members, respectively.[33]

Each thread within a subreddit is made up of an initial post and often has a large number of comments, and this is what was observed. To keep information as up to date as possible, I observed posts that had been published within the last three months. Observation is a central technique in ethnographic research for making sense of people's experiences within their cultural setting (Spradley, 1980; Pertierra, 2017a). Because I am a user of Netflix and PoGO and was thus more likely to become attached to certain discussions I could resonate with, I conducted passive participation (Spradley, 1980). A passive participant is "present at the scene" as a spectator, and does not interact with others (Spradley, 1980, p. 59). I observed activity on reddit covertly; I did not announce my presence and did not engage in any way in the subreddits I was observing. The

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[32] The 'r/' is used to designate subreddits on reddit, and it is how subreddits are located on the website. For example, the URL for the Netflix subreddit is reddit.com/r/netflix.

[33] In August 2021, r/netflix had 994 thousand members and r/pokemongo PoGO had 3.3 million members.

purpose of this was so people did not alter what they shared because they were being studied, and to avoid imposing biases within discussions based on my own experiences.

Predetermined prompts and questions were developed to guide the exploration of recent activity in the field site, structure field notes and generate a critical reflection. The first prompt was 'what threads had the highest level of engagement in the past month?'. On reddit, members can upvote, downvote and comment on posts and replies. These are indications for what threads have been engaged with the most and are thus useful to guide what to observe within the subreddit. The second prompt was a series of questions to draw out experiential accounts, including, 'what are people talking about in relation to their experience with Netflix/PoGO?', 'are there key themes or patterns?' and 'what stands out/is anomalous?'. The final prompt was 'how can I think about what is being discussed in terms of disruption?' to cue a critical reflection relating to the study's theoretical framework. A digital fieldwork journal was kept to record these field notes in addition to relevant metadata, such as the date and URL's of relevant subreddit threads. Field notes were drawn from for analysis, and can be viewed in Appendix 1 for Netflix and Appendix 2 for PoGO.

3.4 Interviews

Interviews were conducted to provide a detailed account of the user experience of Netflix and PoGO in Australia. Observing what was being talked about online provided some context for how these phenomena exist in our world, and interviews provided a national focus. Participants were recruited from the city of Wollongong in New South Wales (NSW), Australia. A total of 28 participants were recruited and provided with a consent form and participant information sheet detailing research objectives, how their data will be used and how to withdraw from the study. For Netflix, interviews included a virtual walk-through and were conducted with 14 participants between July and September 2018. For PoGO, interviews were conducted with 14 participants between December 2016 and May 2017, and a physical walk-along was conducted with four participants from this sample between November 2016 and August 2017.

Interviews were important for uncovering more granular information regarding how people think, feel and behave as users of disruptive technologies Netflix and PoGO. Participants were not asked any questions regarding disruption so the theoretical framework of this project was not imposed on them. Participants were invited to talk about their everyday habits and practices around the technology. In the previous chapter, I explained that user experiences of disruptive technologies are largely contained to industry research around patterns of consumption. Thus, investigating the

experiences users are having by talking to people and interpreting their stories is necessary to understand these patterns and fill out the picture of disruptive technologies.

3.4.1   Netflix

Semi-structured interviews were conducted with 14 Netflix users on the University of Wollongong (UOW) campus in Australia over a three month period between July and September 2018. Participants were selected based on the following criteria: (1) over 18 years of age, (2) currently using Netflix, and (3) ability to access UOW campus for a face-to-face interview. Participants for Netflix were recruited by creating and sharing a post to field interest on my personal Twitter and Facebook, which I would follow up through private messages and email. In addition, a post was made in 'UOW Buy & Sell', a Facebook group for students that has thousands of members and a high level of engagement. People aged 18 to 34 account for 81 per cent of people who use SVOD services in Australia, so targeting university students—who are 26 years old on average—was appropriate (Screen Australia, 2018a; Edwards & Brugge, 2012). However, the sample still included older participants in order to gather different perspectives. The participants' ages ranged from 19 to 54 years, with a mean age of 33 years. Men and women were equally represented in the dataset. See Appendix 3 for data on Netflix participants, which includes the age, gender, interview date and interview duration for each participant.

Participants were interviewed individually and asked to bring a personal device, such as a laptop or tablet, and log into their Netflix account at the beginning of the interview to virtually 'walk-through' the platform. This technique was inspired by a study by Robards and Lincoln (2016), whereby participants were asked to scroll through their Facebook timelines and invited to "narrate and reflect on what they were seeing" (p. 4). For Robards and Lincoln (2016), this process "revealed much about the ways in which young people are using Facebook as an archive of everyday life." By using this method, I intended to uncover patterns of use as participants navigated their Netflix account while being interviewed. Participants were invited to reflect on their viewing practices and current habits around Netflix, unique experiences related to the platform, as well as thoughts about the connection, quality, content, and how it is integrated into daily life.

The walk-through acted as a touchstone for both myself, as the interviewer, and the participant to refer to and initiate discussion. As participants scrolled through the platform, I asked them to speak about its functionality, what they think about Netflix's algorithmic 'recommended' content and rating system, and whether they feel that influences their viewing habits. The walk-through

also involved questions about personal viewing, such as 'describe the way Netflix fits into your life', 'how has Netflix changed the way you consume televisual content?', 'how long would you typically watch for?', and 'what factors influence the decision, such as mood, time, or sociality?'. I must emphasise that my research is less concerned with viewers' thoughts and feelings about the specific content on Netflix (for example opinions about a TV show), and more focussed on their thoughts, feelings and behaviours around the service itself and how it fits into their life. Each interview took approximately one hour, with around 80 interview questions serving as a guide to generate a conversation about participants' everyday experience with Netflix. The interview questions for Netflix participants can be viewed in Appendix 4.

Interviews with all 14 Netflix participants were recorded on an audio device and transcribed. Transcription documents were imported into the qualitative data analysis software NVivo where they were coded thematically. The analysis procedure is detailed later in the chapter.

3.4.2 *Pokémon GO*

Semi-structured interviews were conducted with 14 PoGO players on the UOW campus in Australia. Out of those 14 participants, four participants consented for a follow-up interview and walk-along, whereby I accompanied them while they played PoGO. Participants were selected based on the following criteria: (1) over 18 years of age, (2) currently playing PoGO in the Wollongong region, and (3) ability to access UOW campus for a face-to-face interview. Participants for PoGO were recruited by initiating conversations with PoGO players on UOW campus, as well as approaching staff members at a local gaming store, EB Games, in Wollongong central. In addition, posts were made on public Facebook pages including 'Pokémon GO: Wollongong', and 'UOW Buy & Sell' which are active social channels. In 2016, people aged 18 to 34 accounted for 78 per cent of PoGO players in Australia, so targeting university students— who are 26 years old on average—was appropriate (Smith, 2020; Edwards & Brugge, 2012). However, the sample still included older participants in order to gather different perspectives. The participants' ages ranged from 18 to 40 years, with a mean age of 25 years. Men and women were equally represented in the dataset. See Appendix 5 for information on PoGO participants, including the age, gender, interview date and interview duration for each participant.

Pokémon GO Interviews & Walk-alongs		
	Semi-structured Interview	**Walk-along**
Time Period	December 2016 – May 2017	June – August 2017
# Participants	14	4
Average Duration	45 minutes	10 minutes

Table 1. Pokémon GO Interviews & Walk-alongs

The initial 14 interviews were conducted over a six-month period with one participant at a time, and the duration was approximately 45 minutes for each interview (see Table 1). These interviews were prompted by questions relating to patterns of use in terms of time, place, fandom, game design, regulation, sociality and mobile connectivity. Approximately 80 interview questions served as a guide to generate a conversation with 14 participants regarding how they incorporate PoGO into their daily life. The interviews encouraged a reflection on daily practices and unique encounters players have experienced in relation to PoGO. Participants were invited to refer to the PoGO app on their phone throughout the interview to initiate discussion around their gameplay, and any thoughts or feelings they had about the game. The interview involved questions about current gameplay habits, such as 'how do you usually move when playing PoGO?', 'what do you enjoy most about playing?' and 'what are your primary goals when playing PoGO?'. See Appendix 6 for the list of interview questions used for the PoGO participants.

Four participants from the initial interviews opted-in on their consent form to be considered for a follow-up interview and walk-along. There were no predetermined questions for this interaction; conversation was initiated by observing their play. This is an ethnographic technique called participant observation. The purpose of observation is to gain insight into aspects of their everyday gaming behaviour that they might not have thought to put into words. As noted earlier, information on the ordinary habits associated with use has been lacking in literature on the arrival of digital technologies (Fife, 2005; Pertierra, 2017a; 2017b). This method involves immersion; by being physically involved and directly interacting with the participant while they played PoGO, I was able to understand more about their experience.

Interviews with all 14 PoGO participants were recorded on an audio device and transcribed. Transcription documents were imported into the qualitative data analysis software NVivo where

they were coded thematically. The walk-alongs were filmed on a 360 degree camera and field notes were taken that were drawn from for analysis.

3.5 Analysis

The analysis procedure included thematic coding, thick description and application of the D-E Model. Themes were created by surveying the interview transcripts and field notes to make sense of the user experiences of Netflix and PoGO. The interviews and field notes generated an extensive library of data, which was managed and partially analysed through the qualitative analysis software NVivo.

3.5.1 Thematic Coding

NVivo is valuable for conducting thematic analysis because it can store and organise large datasets, and has tools for producing and organising themes from them. This thesis uses the term 'prospective' instead of 'emergent' when referring to the identification of themes throughout the data analysis process. The purpose of this is to reflect and emphasise that patterns do not 'emerge' by themselves, but rather they are "actively sought out" by the researcher (Taylor & Ussher, 2001, p. 310; Ely et. al., 1997).

Name	Sources	References ˅
▼ ◯ Netflix – interview data	14	890
◯ Time & Attention	14	179
◯ Accessibility	14	149
◯ Wellbeing	14	148
◯ Agency	14	141
◯ Design	14	110
◯ Trajectory	14	91
◯ Sociality	14	72

Figure 1. Thematic Coding: Prospective Themes from Netflix Interviews in NVivo

Within the NVivo software, the analysis process involved reading each 'source' (interview transcript and field notes) carefully, and highlighting 'references' (extracts of text) to a 'node' (prospective theme). This is referred to as thematic coding, which involves putting 'like with like' to develop a sense of key themes (see Figure 1) (Smith et. al., 2009).

Once the overarching ideas and patterns within the data were identified, the analysis progressed through an iterative process of reading, re-reading and reorganising the data to interpret patterns of meaning. By repeatedly trawling through the data new themes became apparent and overlapping themes were synthesised. Annotations were made regarding the content and language of the text that helped refine and define what each theme represented on a conceptual level. The meanings behind qualitative data are often obscured, so facilitating such a close inspection of data is indispensable and allows for a richer understanding of ideas in the text (Smith et. al., 2009). This process was long and intensive, but eventually themes began to crystallize. By the end of this stage, there was a good sense of the key themes, which are the broader patterns, and subthemes, which are the ideas that make up each key theme.

3.5.2   Thick Description

The analysis process involved composing a 'thick description', which refers to an "intense interpretative engagement" with the data (Smith et. al., 2009, p. 153; Geertz, 1973). Clifford Geertz (1973) informed the way ethnographic research became thought of as an interpretive science, and introduced the concept of thick description to help understand a group or culture at a particular time and place. This process produces an interpretive account that identifies all individuals, their actions and the meanings attached to their experience (Geertz, 1973). As other scholars suggest, investigating user experiences must be "process-oriented rather than result-oriented, interpretive rather than explanatory" (Ang, 1990, p. 240). McLuhan (1964) also insists on description (instead of prediction) when analysing media.

Reddit users and participants provided subjective descriptions of their experience online and while being interviewed. By privileging these first person accounts, I acknowledge that they are experts on their own experience; their descriptions drive the research and are respected as valid data. Although being a Netflix and PoGO user myself creates bias, it is useful as "a route through which to empathetically connect with ... sensory, embodied and affective experiences" of other users, aiding the interpretation of data (Pink et. al., 2016, p. 39).

3.5.3   The Disruption-Experience Model

The D-E Model was a critical part of the analytical process for improving our understanding of technologies that have been labelled as disruptive. The intention was not to compare Netflix and PoGO, but to obtain a clearer sense of what users think, feel and what drives their daily practices as they engage with these technologies in their everyday lives.

In the previous chapter, I explained that the D-E Model identifies three core concepts that can help capture various aspects of an individual's experience with technologies that have been perceived as disruptive: stabilisation, destabilisation and transformation.

Disruption-Experience Model			
Concept	**Stabilisation** *Sustaining* experience	**Destabilisation** *Dysfunctional* experience	**Transformation** *Novel* experience
Cue	Are thoughts, feelings and practices being <u>reinforced</u>?	Are thoughts, feelings and practices being <u>undermined</u>?	Are thoughts, feelings and practices <u>dramatically shifting</u>?
Principles	Meets or exceeds expectations	Unmet expectations	New expectations
	Consistent with beliefs	Inconsistent with beliefs	New beliefs
	Reinforces established or desired habits and behaviours	Challenges established or desired habits and behaviours	New habits and behaviours

Table 2. Disruption-Experience Model: Concepts, Cues & Principles

The investigative cues and principles shown in Table 2 were developed and refined based on patterns in the empirical evidence. Throughout the analysis, I observed experiences that met or exceeded users' expectations, were consistent with their beliefs about how the technology or their experience with it should be, as well as the ways established or desired habits and behaviours were upheld. I identified these experiences as sustaining, because users' thoughts, feelings and practices were being reinforced. I employ the term stabilisation to highlight experiences of this nature.

In addition, there were experiences in which users' expectations were unmet, inconsistent with their beliefs and challenged established or desired habits and behaviours. I identified these experiences as dysfunctional, because users' thoughts, feelings and practices were being undermined in some way. I employ the term destabilisation to highlight experiences of this nature.

Finally, I observed experiences whereby users were establishing new expectations, new beliefs and new habits and behaviours. I identified these experiences as novel, because users' thoughts, feelings and practices were dramatically shifting. I employ the term transformation to highlight experiences of this nature.

The principles in the D-E Model are not criteria to be fulfilled; the purpose of them is to draw out aspects of the user experience and talk about them in this framework of disruption. I discovered that during interactions with the same media technology, one user may have an experience that is destabilising, one may have an experience that is stabilising, and another may have an experience that is transformative. Sometimes these experiences overlap, but not always. The D-E Model provides a language for identifying these granular insights.

The D-E model was instrumental to the interpretation and description of user experiences for this thesis. The strength and usefulness of the model is in how it helps researchers ask questions in the exploration of qualitative datasets. Applying the model to this investigation helped illustrate that disruption is not entirely negative; it can mean different things and indicate different experiences. The model aims to account for these differences in useful ways that will help inform policy, business practice and so on, getting to the humanity of experience that quantitative approaches cannot capture.

3.6   Ethical Considerations

Ethics approval was obtained for the interviews and walk-throughs conducted in this project. The purpose of this method was to gain in-depth insights into individual perceptions and practices relating to the consumption of Netflix and PoGO in the city of Wollongong, Australia. All individuals that were interviewed provided consent to participate in the study. The Human Research Ethics Committee (HREC) application numbers are 2016/396 for PoGO and 2018/211 for Netflix. Before the research began and throughout the project, some specific areas of human research ethics needed consideration. This involved the inclusion of participants who are likely to talk about or be engaging in illegal activities, which included trespassing among PoGO players and piracy among Netflix users. Anonymisation was employed at the beginning of the data analysis process in order to protect the identity of individuals. In addition, Both Netflix and PoGO participants' identities are protected by being represented through pseudonyms. Reddit users are not identified and are represented by simply indicating 'reddit user' before referring to or quoting the data, for example "one reddit user expressed…"

3.7 Limitations

The primary limitations of this methodology include (1) not interviewing Netflix participants in their homes and (2) conducting the digital ethnography for PoGO after interviewing participants.

Interviewing Netflix users out of their home—which is where they typically accessed the streaming service—may impact the results in this case study because I relied on participants' memories of their viewing experiences. Interviewing Netflix participants in the home might have led to different or more detailed responses. However, this was partially addressed by including the virtual walk-through, which intended to trigger participants' thought processes and the feelings they would have when using Netflix at home. Conducting home interviews and observation were not sought due to researcher safety and time constraints, with the main concern being waiting too long for ethics approval and not having enough time to collect and analyse the data for submission of the thesis. Future studies can contribute further to this objective by observing and interviewing SVOD users in their homes to reveal more detail about the user experience as it happens in real time, rather than relying on participants' memories.

Interviews and walk-alongs with PoGO participants were conducted in 2016 and the digital ethnography for PoGO was conducted in 2018, so the discussions I observed on reddit did not influence the interview questions as they did for Netflix. The interviews were conducted early on in the project in an attempt to capture the initial craze, and were also prior to considering a digital ethnographic component for the project. The interview questions for PoGO were instead established by myself and my primary supervisor as PoGO players ourselves. The digital ethnography was still valuable for informing case study literature and was particularly useful for supplementing the interview data; the digital ethnography provided retrospective discussions of PoGO's early days and its subsequent trajectory, providing a rich and layered analysis.

3.8 Reflection

Both Netflix and PoGO are entertainment technologies that have been labelled as disruptive. However, because they have their own unique histories and contexts, each case study is analysed separately. Despite collecting a similar amount of data for Netflix and PoGO, there is some imbalance between the case study analyses in terms of length.

There were more overlapping themes within the PoGO dataset which led to a shorter analysis and discussion compared to Netflix. PoGO participants spoke primarily about their experience with the innovative mobile game as it arrived in Australia in 2016 and its impact on their lives thus far. Many of the interviews contained similar stories and accounts and there was significant overlap in the experience of the users. The first interview for PoGO was conducted just months after its release in November 2016, and the last walk-along and interview was in August 2017.

In contrast, Netflix participants were interviewed between July and September 2018, over three years after the streaming service's arrival in Australia. In addition, participants frequently made sense of their experience with Netflix by referring to their long established beliefs about and practices with television, piracy, DVDs and so on. This gave rise to greater, more diverse accounts of experiences and less overlap between users. This allowed me to map the transition between dominant modes of content consumption and explore how these previous media forms—which were and in some cases still are central to their everyday life—influenced their experience with Netflix. This ultimately created a broader narrative of their experience involving the trajectory of their thoughts, feelings and behaviours pre and post Netflix.

3.9 Summary

Th methodology of this research project falls under the umbrella of media ethnography (Pink et. al., 2016; Pertierra, 2017a; 2017b). I employed a combination of ethnographically-driven qualitative methods in order to investigate two case studies, Netflix and PoGO. The data collection process involved two parts, a digital ethnography and interviews with participants. The digital ethnography was an observation of discussions from the r/netflix and r/pokemonGO subreddits in 2018. This method took a triangulating role, as its purpose was primarily knowledge building; data from the digital ethnography informed case study literature, guided interview questions in the case of Netflix and supplemented interview results in both case studies. A total of 28 participants were recruited from the city of Wollongong in Australia. For Netflix, interviews included a virtual walk-through and were conducted with 14 participants between July and September 2018. For PoGO, interviews were conducted with 14 participants between December 2016 and May 2017, and a physical walk-along was conducted with four participants from this sample between November 2016 and August 2017. Interviews were important for uncovering more detailed and granular information regarding how people think, feel and behave as users of disruptive technologies Netflix and PoGO.

Methodology

The analysis process involved identifying key themes among the datasets, producing a thick description and applying the D-E Model. Themes were created by examining the interview transcripts and field notes from the digital ethnography and walk-alongs using the qualitative analysis software NVivo. Themes were consistently fractured, synthesised, and refined until key themes and subthemes began to crystallize. I began to produce an account of the data within these themes, an interpretive endeavour known as thick description (Geertz, 1973). I sought to interpret and describe the first person accounts that drive the research. Being a Netflix and PoGO user myself was valuable here in order to connect with the experiences of other users, aiding the interpretation of data.

The D-E Model was a critical part of the analytical process in order to answer the research question, 'how can we better understand the user experience of technologies that have been perceived as disruptive'. To make sense of the identified themes, I looked for patterns among the thoughts, feelings and behaviours that are part of the users' experiences and approached them through the lens of disruption. The investigative cues provided by the model were instrumental to the interpretation and description of user experiences. The model opened up a more nuanced discussion of Netflix and PoGO by observing and explaining stabilising, destabilising and transformative user experiences.

4

From Television to Televisual

4.1 Introduction

Reviewing the history of television viewing in Australia, internet streaming, piracy, viewer agency and binge-watching is essential in order to comprehend how television has become embedded in everyday life, how Netflix came into being and thus how experiences of television have been evolving. There are a number of social and technological developments that led to the inception and popularity of Netflix. In order to build a picture of the ways Netflix is experienced and understood, this chapter provides the necessary context for both Netflix's label as a disruptor and the analysis of user experiences in the following chapter.

4.2 Background & Significance of Netflix

Netflix is currently the biggest international internet entertainment service, with over 200 million subscribers across 190 countries (Netflix Media Center, 2021; Schomer, 2020). Netflix is primarily known as a high-definition subscription video-on-demand (SVOD) service that can be accessed through an application on any internet connected device with a screen, such as smart TVs, computers, laptops, tablets or smartphones. However, Netflix actually began as a DVD-by-mail service. In August 1997, new technology entrepreneurs Reed Hastings and Marc Randolph founded NetFlix in Scotts Valley, California.[34] The pair saw a business opportunity through the World Wide Web, and in 1998, they launched a DVD rental and sales website, netflix.com

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[34] The company changed its name to Netflix, Inc in 2002, modifying the uppercase F (Funding Universe, 2011).

(Netflix Media Center, 2020; Carr, 2010; Funding Universe, 2011).[35] The website allowed people to select titles, and the DVDs were distributed to their homes.[36]

The advent of streaming technology and growing adoption of high-speed internet connections allowed Netflix to transform itself beyond a DVD-by-mail service and become a worldwide success (McDonald & Smith-Rowsey, 2016, p. 24; Burroughs, 2019b). The launch of their SVOD service in 2007 allowed Netflix to expand internationally and embed itself into everyday life by being convenient and affordable (Barker & Wiatrowski, 2017; Lobato, 2019). Netflix still offers its DVD-by-mail service in the United States, which has over 2.5 million subscribers (Walters, 2019). However, when speaking of Netflix in this thesis, it is in reference to its SVOD service, which makes up most of the company's revenue. By 2010, just three years after its SVOD service launched, Netflix was dominating internet traffic in North America, and in 2020 it made up 11 per cent of global internet traffic during the COVID-19 stay-at-home orders (Jamieson, 2016; Sandvine, 2020).

Netflix has been described as the "most dramatic disruption" for Australian television (Bennett et. al., 2020, p. 85; Turner, 2019a). The arrival of the SVOD service represents a moment whereby Australians began embracing a new television—or televisual—environment, as people began increasingly seeking content from digital platforms (Bennett et. al., 2020). Netflix captured 15 per cent of Australia's television market in its first three months, rising to 32 per cent by 2017 (Roy Morgan, 2017). The popularity of the SVOD service has interfered with national media systems, influenced viewing practices and challenged established concepts of television. Consequently, Netflix has been referred to as a "dominant force" (Grinapol, 2013, p. 71; Ferrell & Hartline, 2013, p. 478), a "significant force" (Jenner, 2018, p. 28), a "central force" (Barker & Wiatrowski, 2017, p. 12) and a "cultural force" (Burroughs, 2019b, p. 4; Jenner, 2018, p. 27) . This illustrates that Netflix is perceived as one of the most powerful entertainment companies in the world, so it is important to make sense of it (Boca, 2019; Deloitte, 2019).

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[35] The World Wide Web, also known as the Web, is the collection of websites, which utilise the Hypertext Markup Language (HTML) to deliver content via a web browser using the Internet (Ince, 2019d).

[36] I use the term 'title' to refer to professionally produced and published screen content like TV shows, films, stand-up routines, concerts and so on.

4.3 Television Viewing in Australia

For many Australians, their initial experience of watching television was social and communal. Television technology first arrived in Australia in 1950, and by 1959, television was available across most state capitals (Turnbull, 2012; Darian-Smith & Hamilton, 2012).[37] Television sets were largely unattainable due to the cost being about 10 weeks of the average wage. People would watch television through a shop window or at a friend, relative or neighbour's house. Despite its cost, Australians adopted television at a rapid rate and it became a more privatised activity (Darian-Smith & Hamilton, 2012). However, the sense of "co-presence and simultaneity"—others in the nation watching what you were watching—remained central to the experience of television in Australia (Bennett et. al., 2020, p. 84).

The impact of television on family dynamics in the home was widely discussed in the decades following its introduction. By the 1960s and 1970s, television was a primary source of news, weather and entertainment, and was implanted—physically and politically—in the center of the home.[38] A TV was an item of status, typically placed in the lounge or common room; the central room in the home.[39] TVs were purchased for their promise of entertainment and to bring the family together. The cultural influence of television was so pervasive that children whose families did not have one would be left out from schoolyard discussions or games relating to television shows and personalities, which led to children resenting their parents (Darian-Smith & Hamilton, 2012; Darian-Smith & Turnbull, 2012). James Lull (1980) explains that because families were the most ubiquitous viewing group, studies around audience behaviour focussed implicitly on familial relations in the home. Now, there is an abundance of viewing modalities and options, which means fewer people are watching things together and is why I will be focussing on the experiences of individual users in the following chapter.

The presence of television in Australian homes has always been aural as well as visual, as "many people like the sound of television as 'company' when they are alone, yet they may not be 'watching' it closely—or even at all" (Darian-Smith and Hamilton, 2012, p. 34; Campbell, 1962).

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[37] Residents of the town Kyabram in Victoria had been introduced to the exciting new medium through a demonstration of television by the Astor Mobile Unit (Turnbull, 2012).

[38] Initially perceived as 'radio with pictures' or 'cinema at home', the domestication of television transformed the social and cultural lives of Australians by enabling the immersive experience of cinema to be recreated privately (Darian-Smith & Turnbull, 2012; Darian-Smith & Hamilton, 2012).

[39] The placement of the television set in the home was significant, prompting new developments in residential architecture, interior design and power outlet positioning (Darian-Smith & Hamilton, 2012).

Primary motivations for watching television that were initially identified include relaxation, entertainment, habit, time occupation, escapism, sociality, information attainment, sexual arousal and the sense of company (Rubin, 1983; Campbell, 1962). Television has been integral in the daily lives of Australians, a symbol of modern living and even described as 'part of the family' in public and scholarly discourse:

> ...the very materiality of the television set as an ordinary, domestic object—
> with a presence both invisible and integral as "part of the family"—has been
> instrumental to the place of television and television programming in everyday
> life (Darian-Smith & Turnbull, 2012, p.3).

Television became a powerful domestic object in the home, whereby program scheduling and viewing practices structured daily routines.[40] Prior to 1995 was the 'broadcast era', as free-to-air (FTA) television was the only option for Australians. There were five broadcast networks that launched between 1956 and 1978, commercial channels 7, 9, 10, and public service broadcasters ABC and SBS. Each network had their own identity based on programming and target demographics, but all of them delivered content through a linear schedule (Bennett et. al., 2018). Television programs punctuated the day; leaving the TV on all day became just as effective as having a clock (Fiske, 2004, pp. 136–7; Hartley, 1983, pp. 75–6). Indeed, television was very deeply embedded in Australian homes, and was so thoroughly integrated into everyday life that it became largely invisible (Darian-Smith & Turnbull, 2012).

4.3.1 Technologies of Agency

The history of viewer agency demonstrates the shift from television as a familial practice to an individual one and is fundamental to understanding the phenomenon of binge-watching, a mode of viewing that is associated with Netflix. The remote control, VHS, DVD box set and digital video recorder (DVR) device gave individuals more agency regarding their viewing.

The first commercial wireless remote controls began appearing in the mid 1950s, to make television operations more convenient. The technology changed the relationship between the television and the viewer, facilitating channel surfing (rapidly scanning programming) and the avoidance of commercials (Bellamy & Walker, 1993; Liszewski, 2012). The remote control made

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[40] Historically, television has been considered "a vehicle for the transformation of the everyday, and a privileged source of information and insight into it" (Ellis, 2002, p. 280).

the experience of television more interactive, as audiences exerted some control over their viewing. The technology led to anxieties within the television industry, as viewers could more easily select from competing options, and circumvent advertisements by changing the channel, adjusting the volume or muting. The invention of the remote control challenged the television industry's perception of audiences as passive and led to changes in television scheduling and the production of more appealing advertisements (Bellamy & Walker, 1993; Liszewski, 2012; Jenner, 2018).

Australians began using VHS in the late 1970s, a device which set the stage for the on-demand culture we experience today, as the first alternative to broadcast TV in the home.[41] Jacobs (2011) describes the VHS as "the earliest domestic weapon against interruption and chronological authority of the broadcast schedule" (Jacobs, 2011, p. 259). Another important development in terms of agency was the acquisition of another TV set. In the 1980s, people began to own multiple TVs as they became more affordable. TVs were then located in other rooms of the home, leading to more independent viewing experiences among household members (Bennett et. al., 2018).

DVDs arrived in 1998 and became the dominant delivery format for accessing content on-demand in the home in the early 2000s (Screen Australia, 2018b; Groves, 2004). It was not until the introduction of DVDs that manufacturers began to compile single seasons of shows into box sets, so viewers could enjoy viewing serialised content of their choice without ad-breaks, although they were very expensive (Jenner, 2018). Box sets could be purchased from retail stores or online, borrowed from a friend or family member, or hired from a local rental store. Finally, DVR technology was introduced in 1999 in the United States, arriving in Australia in 2008 with a high price point (Meese et. al., 2015). The DVR allowed viewers to record content on television and therefore construct their own television schedules, known as time-shifting (Schwartz, 2004; Pena, 2015; Jenner, 2018; Tryon, 2013).[42] The autonomy enabled by the DVR and DVD box sets contributed to a new television viewing practice: binge-watching.

4.3.2   History & Principles of Binge-watching

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[41] Betamax was actually a superior video format in terms of image and sound quality. However, as the pornographic movie industry was shifting from movie theatres to home distribution, and VHS was cheaper, this was their selected format. Despite other media and entertainment industries pushing for Betamax, the VHS dominated the market. The pornography industry led the way for distribution technologies, and this happened again with Internet streaming (iDisrupted, 2015).

[42] Time-shifting refers to the action of recording a program on television for later viewing (Stevenson, 2015j).

Binge-watching is widely debated and discussed among academics, health professionals, journalists and bloggers (Jenner, 2014; Pena, 2015; Rainey, 2015; Nield, 2017; Flayelle et. al., 2017; Case, 2017; Hiday, 2017; Blanche, 2018; Turner, 2019b; D'Souza, 2020; Steiner & Xu, 2020; Starosta & Izydorczyk, 2020). Before unpacking binge-watching, it is useful to understand what constitutes a 'binge' in other contexts.

The term 'binge' refers to a particular mode of consumption—overindulgence—that is perceived to be harmful to human health (Pena, 2015; Nield, 2017; Case, 2017; Rodriguez, 2019; D'Souza, 2019). The concept of 'binge-drinking', for example, is consuming an excessive amount of alcohol in a short time period (Stevenson, 2015a). Similarly, 'binge-eating', is to rapidly consume a large amount of food (Kent, 2016). Recurrent episodes of binge-eating can lead to an eating disorder, of which a diagnosis has a specific criteria in the *Diagnostic and Statistical Manual of Mental Disorders*, *Fifth Edition* (DSM–5). The criteria includes the excessive consumption of food within a two-hour window accompanied by feeling a loss of control, to occur at least once a week over a three month period. These episodes are typically followed by guilt and self-disgust, causing significant mental distress, which can lead to depression (American Psychiatric Association, 2013, pp. 350–353). Analogously, 'binge-working' is a phenomenon that describes long working hours, with harmful implications for health and overall wellbeing as a result of stress, not enough sleep, and being antisocial (Heery & Noon, 2017). Considering all of this, binging signifies the excessive consumption or engagement with some thing or activity; it has a clear temporal element, and negative connotations. What, then, constitutes 'binge-watching'?

The etymology of the word 'binge' means 'to soak' (Hoad, 2003a). Binging might then also suggest the experience of being completely enveloped in something. To be wholly attentive and absorbed in a film or TV show could reflect this aspect of the binging concept, which in this sense is common and arguably harmless. Drawing from other contexts of binging, however, if one feels a loss of control over their binge-watching habits, experiences distress around their behaviour, or it begins to impact their sleep, work commitments, social or family life, it can be problematic. Definitions for binge-watching are largely incoherent and vary in specificity, but one widely accepted description is when someone views many episodes of a TV series, or the entire TV series, in rapid succession (Hiday, 2017; Flayelle et.al, 2017; Boca, 2019; Pilipets, 2019; Starosta & Izydorczyk, 2020; Steiner & Xu, 2020). An analysis of the user experience in the following chapter will help provide a better understanding of how binge-watching is perceived and experienced by Australian Netflix users.

Network reruns elicited an early taste of what we know today as 'binge-watching'. Television networks would broadcast 'marathons'—successive episodes of a single tv show—for a number of reasons: to allow viewers to catch up on anything they have missed, to generate awareness of an upcoming season, and to build hype for a show's release to DVD. Even though there would be advertisements during TV show marathons, binge-watching behaviour is thought to have been bred out of these network reruns (Jenner, 2014; 2018; Starosta & Izydorczyk, 2020). The terminology used at this time was 'marathon watching', popularised from both network reruns in addition to viewing a film series successively in the cinema. As the metaphor of a 'marathon' suggests, the consumption of back to back films in the cinema—typically of a single franchise or genre—was thought of by viewers as an achievement, and was usually a communal cultural experience (McDonald & Smith-Rowsey 2016; Barker & Wiatrowski 2017; Jenner, 2018).

Comparatively, binge-watching often implies an individualised and potentially shameful behaviour as it has been highly critiqued, despite its capacity to bring about a similar sense of achievement and cultural inclusion. The term 'media marathon' is used interchangeably with 'binge-watching' by media studies scholars, perhaps to remind us that these experiences are not necessarily new or problematic (Pilipets, 2019; Boca, 2019). Although the phenomenon of binge-watching can be traced back to network reruns and movie marathons, the experience of binge-watching—whereby viewers exert a degree of autonomy over their viewing—was truly crystalised through the capabilities of the DVR device, internet streaming and piracy. Shwartz (2004) describes the way TiVo, a popular DVR device, was revolutionary for TV watching:

> Those programmable, electronic boxes like TiVo enable us, in effect, to create our own TV stations. We can program those devices to find exactly the kinds of shows we want and to cut out the commercials, the promos, the lead-ins, and whatever else we find annoying. And the boxes can "learn" what we like and then "suggest" to us programs that we may not have thought of. We can now watch whatever we want whenever we want to. We don't have to schedule our TV time. We don't have to look at the TV page in the newspaper. Middle of the night or early in the morning—no matter when that old movie is on, it's available to us exactly when we want it (p. 20).

The capabilities of the DVR signalled a profound shift in domestic television viewing because it gave people more autonomy and personalisation (Schwartz, 2004; Pena, 2015; Jenner, 2018; Tryon, 2013). The DVR also represents the essence of SVOD services. Netflix, for example, is a

contemporary reformulation of the principles outlined by Schwartz in the extract above. On Netflix, users might create their own 'station' through the 'My List' feature by compiling content they like in one place. Netflix liberates its users from embedded segmented advertisements and provides the ability to skip recaps and opening credits of a TV show. Through these functions, Netflix learns what its users like and suggests new content to discover; a tailored experience. It is these principles, not Netflix itself, that drive binge-watching behaviour.

4.3.3   The Rise of Internet Streaming

Reviewing the introduction and popularisation of internet streaming is relevant for understanding the success of SVOD models like Netflix. In the *Dictionary of the Internet*, Ince (2019c) defines streaming as the broadcasting of data to a user of the Web. Streaming is very different to other technological developments like the VHS, DVDs and TiVO because it allows viewers to view content, but they do not own it.

Internet streaming was pioneered by the pornography industry and mainstreamed by YouTube. Porn sites were some of the first websites that helped people to become comfortable having digital memberships, logins and passwords, and porn was one of the first forms of digital content for which people were willing to pay money. The popularity of internet porn—which were then scanned photos from magazines—motivated online porn entrepreneurs to produce their own content, as the Web offered a revolutionary distribution platform. The demand for attracting and satisfying paying members of porn sites led to the development of streaming video. Dutch porn company Red Light District developed a compressed video streaming system in 1994, preceding Hollywood's attempts to deliver videos via the Web in 2000, making the porn industry pioneers in the internet streaming landscape (McCullough, 2015; Brooks, 1999). Porn thus played a significant role in the popularisation of the Web, the introduction of streaming video and streaming subscription models.

Video-sharing website YouTube is critical for understanding the popularisation of streaming entertainment media. YouTube launched in 2005, aiming to dissolve the technical barriers of widespread video sharing. The platform became the bedrock of a significant section and type of participatory culture, where anyone could upload streaming videos through standard browser software, without advanced technical knowledge (Jenkins, 2006; Burgess & Green, 2009).[43] In

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[43] Participatory culture is when people are invited to actively participate in the creation and dissemination of content (Jenkins, 2006). Participatory culture reveals the link between accessible digital technologies

October 2006, Google acquired YouTube for US$1.65 billion. By 2008, YouTube was one of the top ten most visited websites in the world. The ascendance of YouTube occurred amid a fog of uncertainty; the purpose of the site was continuously being redefined by corporate practices and audience use. This led to speculation around whether YouTube was just a fad, a clever invention, or a powerful media distribution platform like television (Burgess & Green, 2009).

The success of YouTube is a result of four key features: video recommendations, links that enable video sharing, comment sections and other social functionalities, and an embeddable video player (Burgess & Green, 2009). Like porn websites, YouTube has members, however their engagement with content on the platform is largely participatory and social; users can share their own content, subscribe to other user's channels and comment on videos. YouTube is a high-volume website with multiple roles and is constantly evolving. It is a broadcast and social networking platform and an aggregator and archive of content. YouTube threatened established logics of the broadcast landscape—particularly before its implementation of ads in 2008—and as a site of participatory culture, YouTube has been simultaneously disruptive and uncomfortable for media industries, yet liberating for its users (Burgess & Green, 2009).[44]

In 2011, YouTube began producing original content and offering a library of films and television shows for viewers to rent and stream, in order to remain competitive with the emerging popularity of SVOD services Netflix and Hulu (Leskin, 2020).[45] The success of audio streaming application Spotify, which has similar features to YouTube and launched in 2006, suggests that subscription models that offer large libraries of content, personalised recommendations and social functionalities are contemporary examples of how people like to consume entertainment media. As in the case of porn, people are willing to pay for the experience they want, with YouTube Premium seeing 1.5 million subscribers only a year after its launch in 2015, and almost half of Spotify's users currently pay for its premium service (Iqbal, 2019; Iqbal, 2021c). Evidently, highly valued experiences of streaming entertainment media are typically easily accessible, free of ad-breaks, personalised, affordable and social (Elder, 2017; Iqbal, 2019).

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and user-generated content, and emphasises the shift in power relations between media industries and their consumers (Burgess & Green, 2009).

[44] YouTube was initially cost-free and had no advertising breaks. Now, its cost-free version is supported by advertisements, and members can upgrade and pay for YouTube Premium to remove them.

[45] Hulu is one of the largest SVOD services in America, launching in 2008. Hulu offers live and on-demand films and tv shows, however, unlike Netflix, the service is not available outside of the U.S. (Hulu Press, 2020).

Despite not having embedded social functions like YouTube and Spotify, Netflix emerged as a cultural force with the advent of streaming technology (Burroughs, 2019b).[46] Netflix began to deliver content to subscribers through its website in 2007, and by 2010 it was the primary source of internet traffic in North America (Jamieson, 2016).

4.3.4   *Popularisation of Internet Piracy*

The history and prevalence of pirated content is relevant for understanding the evolution of viewing practices, as well as the impact of SVOD services like Netflix on the entertainment industry, particularly in Australia. In the *Dictionary of Media and Communication*, Chandler & Munday (2016a) describe piracy as the illegal copying or distribution of media, following The Copyright Agency Limited (1999) proposal that "piracy should be defined as any unauthorised reproduction of a copyright owner's work" (p. 4).

The 'Betamax case' in 1984 was a significant event where fair use of copying media content and the threat of viewers building their own schedules was illuminated for the first time. Electronics company Sony developed a DVR device, Betamax, which could record television broadcasts, and was challenged by Universal City Studios. A decision was made by the Supreme Court of the United States favouring the new technology, whereby individuals were assured the right to record FTA broadcasts for the purpose of time shifting, which did not constitute copyright infringement unless the content was distributed or sold (Corsaro, 2012; Jenner, 2018). This trial set a precedent, and was revisited with the emergence of Napster in 1999, the first peer-to-peer file sharing internet software.[47] Napster faced a number of lawsuits from the recording industry for allowing people to illegally distribute copyrighted works. The introduction of Napster revealed that large-scale copyright infringement was unavoidable within file sharing services (Corsaro, 2012).

Consequently, such systems proliferated; in 2001 another peer-to-peer file sharing program arrived, BitTorrent, and since then hundreds of 'torrenting' services have appeared on the Internet. Torrenting severely impacted extant modes of distribution and consumption in the entertainment

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[46] Netflix users were able to experience social functions by linking their account to Facebook, however this became part of a privacy scandal that will be discussed further in the following chapter. In 2020 during the COVID-19 pandemic, a third-party application called Teleparty (formerly Netflix Party) appeared, which synchronises video playback for multiple people and provides a group chat to the stream for a number of popular SVOD services (Teague, 2021).

[47] Individuals using Napster downloaded the software, created an account, and uploaded their files to the programs centralised servers. Users could then search these servers and download other files, enabling anyone with an account to share files (Corsaro, 2012).

landscape, with Australians under 35 having a reputation for being the worst offenders across the globe (Quinn, 2017; Whigham, 2018). In April 2016, over 200 thousand Australians downloaded the first episode in season six of *Game of Thrones*. This was more than any other country, making up 12.5 per cent of its total downloads on BitTorrent (Starr, 2016). The ubiquity of piracy in Australia is likely the result of inaccessibility due to geographical isolation, whereby content legally arrives here much later than other countries, and lack of government intervention.

However, in December 2016 the Australian government began to crack down on pirating through site-blocking orders, the introduction of new legislation, increased surveillance, and threats of financial penalties and incarceration. These interventions overlapped with, or perhaps encouraged the rapid adoption of Netflix by Australians in its first year, and piracy in Australia has since seen a significant decline (Roy Morgan, 2016; Quinn, 2017; Screen Australia, 2017; Whigham, 2018). The following chapter contributes to the discourse on piracy in Australia and explores the evolution of participants' viewing practices as they transitioned from television, to piracy, to Netflix.

4.3.5 *Arrival of Netflix*

Netflix has been rapidly adopted by Australians, dominating the national SVOD market with over 12 million subscribers (Roy Morgan, 2019; 2020; 2021; Screen Australia 2017; 2018a). The experience of television in Australia has evolved over many years as a result of successive developments in distributional infrastructure and television delivery models. Subscription television (STV) arrived in 1995, digital television (DTV) in 2001 and SVOD in 2015 (Goldsmith, 2015). Netflix officially entered the Australian market in March 2015 as a SVOD service, reaching almost three million Australians in its first year (Cinque & Vincent, 2018). However, just like broadcast television, Australians knew about Netflix well before it arrived.[48] Netflix's popularity in the United States made it one of the most recognisable brands in the entertainment industry, which has been frequently referenced throughout popular culture over the last decade.

The association of Netflix with hookup culture, which pervaded social media, contributed to its international recognition. The slogan 'Netflix & Chill' was generated by Netflix audiences themselves, along with a string of viral memes, pages, groups, and stories relating to dalliances

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[48] Darian-Smith and Hamilton (2012) contend that television had been anticipated by Australians as early as the 1920s, as news of its technological development elsewhere was discussed in newspapers.

in the home.[49] As a result, Netflix & Chill became a popular meme in Australia before the service had even arrived. The meme of Netflix & Chill is very much about Netflix as an experience—like going to the cinema on a date—and people do not say 'Watch TV and chill' in the same way. From the onset, Netflix had a certain cachet, particularly among youth and young adults. Indeed, the SVOD service is most popular among 18 to 34 year olds (Screen Australia, 2018a; Lobato & Scarlata, 2018).

In Australia, SVOD services were immediately popular because they offer unlimited access to a diverse catalogue of content for an affordable monthly flat rate (Cinque & Vincent, 2018). For example, in Australia, Netflix currently offers three subscription options, Basic, Standard and Premium, priced at AU$10.99, $15.99 and $19.99 respectively, a fraction of the cost of pay-TV.[50] The video resolution, ability to watch Netflix simultaneously on multiple devices and to download titles to stream offline factor into the cost of each subscription (Morwood, 2020). The SVOD model operates through internet connectivity, providing a very different experience for viewers and has been referred to as "a new and disruptive category of entertainment service" (Lobato & Scarlata, 2018, p. 2). This perception is partly due to the fact that most SVOD services do not embed advertising, relying on paid subscriptions and user data to keep themselves running (Given, 2016).

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[49] Netflix & Chill is the contemporary version of a movie date, whereby you invite a prospective lover over to watch a movie—with the intention of not actually watching a movie. The term evolved to also include binge-watching and drug use. There are multiple facebook pages and groups dedicated to the phenomenon and Netflix has even used the slogan to engage with subscribers and promote upcoming content on its social channels.
[50] Australia's leading pay-TV provider Foxtel has plans that start at AU$49 per month, and go as high as $139 per month (Foxtel, 2021). In 2019, the Premium plan for Netflix rose from $17.99 (Masige, 2019).

Evolution of Television Viewing in Australia
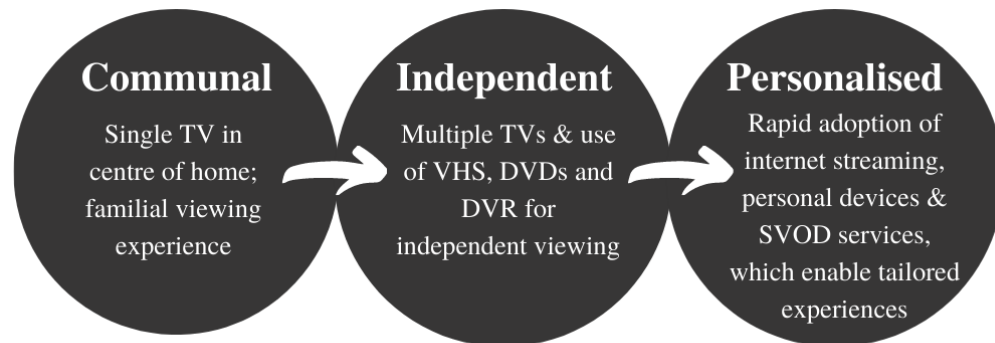
Figure 2. Evolution of Television Viewing in Australia

Netflix moves beyond communal and independent viewing and offers personalised viewing experiences (see Figure 2). Initially, as I discussed earlier, television viewing was primarily familial and communal, whereby viewing occurred around a single TV in the home. When the cost of TVs decreased and the VHS, DVDs and DVRs emerged, there were more independent viewing practices, for example watching TV in one's bedroom and watching programs of interest. From the turn of the century there was widespread use of the Internet, and a rapid adoption of personal devices and multiple screens in the home (Bennett et. al., 2018, p. 142).[51]

The rise of Netflix and other SVOD services made independent viewing more personalised. Individuals could access entire libraries of content that are primarily organised around their viewing behaviour. Indeed, at the heart of Netflix is that its algorithm predicts the viewing habits of its users (Burroughs, 2019b). Netflix acquires and produces a wide variety of content and uses a sophisticated algorithm to display titles to "as many micro-targeted audience groups as possible" (Barker & Wiatrowski, 2017, p. 1).[52] Netflix began investing in algorithmic technologies early

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[51] Particularly in the mid to late 2000s before the Global Financial Crisis (GFC) when the Australian dollar was high and the cost of electronics dropped.

[52] Despite knowing how and why its algorithm is employed, "the specific ways that the Netflix algorithm is leveraged in making programming decisions is largely black-boxed" (Burroughs, 2019b, p. 10). A

on, as the company is dedicated to creating tailored experiences for its users (Curtin et. al., 2014; Alvino & Basilico, 2015; Barker & Wiatrowski, 2017). Chief Content Officer (CCO) Ted Sarandos explains how the evolution of Netflix to a SVOD service has provided more detailed viewing data:

> Here is what the data from our DVD business tells us: we know what we shipped to you, and we know when you returned it. I have no idea if you watched it. I have no idea if you watched it 20 times. With streaming, we have insight into every second of the viewing experience. I know what you have tried and what you have turned off. I know at what point you turned it off. It's very sophisticated (cited in Curtin et al., 2014, p. 136).

Netflix is a prominent example of 'algorithmic culture', in which algorithms play a significant role in shaping digital life. The operation of algorithmically driven services has also meant new ways of shaping viewing behaviour, which have partially "displaced survey-based methods of demographic audience targeting" (Bennett et. al., 2018, p. 129). In the extract above, Sarandos suggests how Netflix uses viewing data as tools for imagining audiences as individual consumers with specific tastes.

Netflix is designed to present the right content—content that will be most enjoyed—to each user. This is most effectively done by the in-built recommendations that are primarily engaged with via the homepage of the Netflix site. In this way, users can easily locate desired titles, discover content they might like, and compile them into their My List feature for future viewing (Alvino & Basilico, 2015). This experience of "perpetual personalised discovery" is thought to keep users subscribing month to month and year after year (Barker & Wiatrowski, 2017, p. 2). Indeed, Bennett et. al., (2020) explains, "Those who subscribe to Netflix or Stan most value the capacity to customise their viewing" based on interviews with Australians as part of the ACF research project (p. 96). My findings in the following chapter will provide additional insight into what Australian users think about this aspect of Netflix and to what extent it influences their viewing behaviour.

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black box is a concept "used by cyberneticians whenever a piece of machinery or a set of commands is too complex", thus "they draw a little black box about which they need to know nothing but its input and output" (Latour, 1987, p. 2-3).

4.4 Australian Television Industry

The home entertainment sector has been experiencing a massive realignment; users have more options than ever, which means that content (and audiences) are becoming increasingly fragmented (Turner, 2018; Cinque & Vincent, 2018; Lobato, 2019). Netflix had an "immediate and profound" impact on the Australian television industry, which was dominated by FTA broadcasters until the arrival of SVOD services (Lobato, 2019, p. 12; Turner, 2019a). The introduction of pay-TV in 1995 initially gained some market share, but has never secured more than 30 per cent of the market. In contrast, Netflix attracted the same number of subscribers as Foxtel, the 20 year old leading pay-TV service, within its first year (Turner, 2019a; Lobato, 2019). By 2017, Netflix had captured 32 per cent of the market, with one in three Australians having access to Netflix (Roy Morgan, 2017). In 2021, Netflix dominates the Australian subscription market with over 14 million users, followed by Foxtel with 7.75 million for all its services combined, Stan (4.93 million), Amazon Prime (3.29 million), Disney+ (2.87 million) and YouTube Premium (1.47 million) (Roy Morgan, 2021; Roy Morgan, 2020).

Turner (2019a) observes "the patterns of consumption in Australia after 2015 have been dramatically disrupted" (p. 225). This is best exemplified by the impact to Australia's distributional infrastructure, the National Broadband Network (NBN). In 2015, there was a rapid acceleration of data usage in Australia. It is believed this was due to the increased consumption of long-form content, such as television series with many seasons. This data intensive content is primarily accessed through Netflix, the SVOD leader in Australia (Duke, 2018). Netflix not only drives data usage by simply being available, but it also prompts its users to binge-watch long-form content, which will be explored later in this chapter. The NBN, designed to be 'future-proof' was still rolling out when it became clear that it could not actually cope with the popularity of streaming, and thus will struggle to enable future growth (Ross, 2017; Chang, 2019; Thompson, 2019).[53]

4.4.1 From Broadcast to Streaming

Netflix has been influential in the reconfiguration of the Australian television industry. Australia rapidly transitioned from a predominantly FTA market to include an ever-growing online, on-

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[53] In 2013, Prime Minister Kevin Rudd announced there was a "strange coincidence of interests" between the coalition and billionaire media mogul Rupert Murdoch on the NBN (AAP General News Wire, 2013, para. 1). Fairfax media journalist Paul Sheehan (2013) argues that Murdoch opposed the NBN to protect his cable network, Foxtel, from SVOD services like Netflix that would thrive with robust distribution infrastructure.

demand environment (Turner, 2018; 2019a). The Nine Entertainment Company joined Fairfax media to launch the leading Australian-owned SVOD service Stan in January 2015. Netflix arrived shortly after in March, as well as Foxtel's first SVOD service Presto, and a competitive streaming market was ignited. In 2016, Presto had ceased operations and Foxtel launched a new streaming service, Foxtel Now, the following year (Byrnes, 2017). In 2017, 52 per cent of SVOD users claimed they were watching less FTA television (Screen Australia, 2017).[54] By 2018, Netflix had penetrated almost 10 million households, Stan surged 39 per cent reaching two million households and Foxtel Now had almost half a million subscribers (Lobato & Scarlata, 2018; Deloitte, 2018; Wallbank, 2018).[55]

Netflix, as the most popular SVOD service, is particularly controversial in Australia due to the heavily regulated commercial television industry that involves strict content regulations and a Code of Practice. Netflix and Stan have been exempt from the regulatory burdens applied to FTA broadcasters as well as Foxtel, which include tax liabilities, content quotas and advertising guidelines (Davidson & Crowe, 2016).[56]

4.4.2   *Local Competition*

FTA networks have remained competitive by offering their own streaming services, allowing users to view previously televised content on-demand. In 2008 the ABC introduced a free video-on-demand (VOD) catalogue, ABCiView, and Network Ten launched their VOD service Tenplay in 2013.[57] Predating Netflix, the ABC and Network Ten were perhaps anticipating industry changes and aware of the shifting consumption habits of the Australian audience.

The arrival of Netflix then forced other local broadcasters to rethink ways of delivering content (Tucker, 2016; Winsor, 2016; Cassar, 2016; Davidson & Crowe, 2016; Deloitte, 2018; Screen Australia, 2018a; Keast, 2020). SBS On Demand is another VOD service, which launched in 2016 and has been competitively marketed as Netflix's Australian rival (Winsor, 2016). The national

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[54] However, the effects of COVID-19 in 2020 led to an uptick in Foxtel subscriptions, along with competing SVOD services (Roy Morgan, 2021).

[55] SVOD service Amazon Prime launched in 2018, attracting over half a million Australian users by March 2019 (Roy Morgan, 2019).

[56] Screen Australia and the Australian Communications and Media Authority are committed to developing a level playing field. Currently, FTA broadcasters cannot sustainably compete with SVOD services and other internet businesses. Several strategies have been proposed to ensure a more fair and productive media industry in Australia (Keast, 2020).

[57] VOD services allow users to stream televisual content without a subscription because they are often funded by advertisements, as opposed to SVOD models that require paid subscriptions from their users.

VOD market continued to grow, with Nine Network launching 9NOW in 2016, and Seven Network launching 7PLUS in 2017. The VOD platforms still rely on the ad-break business model, and are commonly referred to as 'catch-up' services, as viewers can watch or rewatch specific programs following their initial broadcast for a certain period of time (Cassar, 2016; Davidson & Crowe, 2016). While these services are popular, journalists McDuling and Duke (2018) write that Netflix is considered the 'gold standard' of on-demand home entertainment by industry members based on its simple user interface, affordability and extensive library.

4.4.3   Fragmented Industry

Netflix was initially distributing other people's content on their service through licensing agreements, but as more competitors enter the streaming market, pull their content from Netflix and deliver it through their own service, the streaming industry is becoming increasingly fragmented. In 2017, Disney announced it will end its distribution deal with Netflix, and in 2019 launched its own SVOD service, Disney+.[58]

Despite increasing competition, the streaming landscape will likely be expansive and enduring as Australians tend to use multiple services (Roy Morgan, 2020; Kalogeropoulos, 2017; Screen Australia, 2018a). In April 2019, Australian households spent an average of AU$35.30 on SVOD services, with more options arriving since (AMPD Research, 2019). In November 2019, trillion-dollar technology company Apple introduced their streaming service Apple TV. Similar to Foxtel Now, Apple TV requires a set-top box for users to connect it to their television set. In May 2020, Foxtel launched Binge, an SVOD service designed to deliver "unturnoffable shows and movies from the world's best creators" (Binge, 2020). Unlike Foxtel Now, Binge does not require a set-top box making it more accessible, with a similar price point to Netflix and Stan.[59]

This fragmentation of the SVOD industry contradicts Netflix's original 'cord-cutting' endeavour, which aims to provide a variety of content in one place, instead of needing to pay for costly 'bundles' from cable providers to access the few shows or channels you wanted (Kastrenakes,

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[58] Disney+ was unexpectedly announced as a service free of ad-breaks, and with a similar subscription fee to Netflix. The Disney library is extensive, and now includes recently acquired titles from 21st Century Fox and Pixar (Kastrenakes, 2018; Phys Org 2019).
[59] Binge operates separately from other Foxtel services, charging AU$10, $14 and $18 per month for their Basic, Standard and Premium plans, respectively (Binge, 2020). As Australia's newest market entrants, subscription numbers are not currently available for Apple TV and Binge.

2018; Phys Org, 2019).[60] Perhaps anticipating this issue, Netflix began producing its own content in 2013, becoming a production house as well as an aggregator of content. Consequently, Netflix invests heavily in the production of original content to retain subscribers. In 2016, Netflix released six hundred hours of original content, and in 2017 this almost doubled to one thousand hours (Heisler, 2017).[61] Netflix adjusted to the growing market by modifying their business model, so that they did not have to rely solely on content produced by external entities. However, Netflix created tension upon its arrival in Australia by neglecting local content (Joshi, 2019; MacDonald, 2014).

4.4.4   *Local Content Production*

There is a history in Australia of imported content for our entertainment. Due to technological limitations, the majority of content in the first few years of television was broadcast live, as it was difficult and expensive to record and distribute local programming (Free TV Australia, 2020). But by the 1960s, Australian television was dominated by recorded programs from the United States and the United Kingdom, which "deeply penetrated our cultural imaginations" (Darian-Smith & Hamilton, 2012, p. 31). Australians were accustomed to British and American accents prior to the arrival of television, with imported films showing in cinemas as early as the 1920s. However, television offered a different, unique experience, whereby the sounds and images of the world were received in the intimate space of the home. This led to some controversy following the arrival of television, as social commentators were concerned about the 'Americanisation' of Australia, and the destabilisation of local culture. Class and educational status largely influenced the content preferences of television viewers, whereby British programming was considered serious and 'highbrow', compared to the more entertaining and 'lowbrow' American programs. This distinct cultural divide was well-established among Australians, and again was initiated and transferred across from previous experiences with cinema (Darian-Smith & Hamilton, 2012).

Anxieties around the foreign cultural influence of imported programs led to the introduction of content regulations in 1961. This included the imposition of a minimum quota of 55 per cent Australian produced content on commercial networks between 6 a.m. and midnight (Turnbull,

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[60] The arrival of Disney+ was expected to significantly impact Netflix's markethold, with popular media franchises like Star Wars, Marvel and The Simpsons to be distributed through the new SVOD service. (Kastrenakes, 2018; Phys Org, 2019). However, Australians are likely to have multiple subscriptions, with Netflix and Stan being the most popular combination, closely followed by Netflix and Foxtel, then Netflix and Disney+ (Roy Morgan, 2020).

[61] Blogger Heisler (2017) writes that Netflix's in-house productions further entrenches itself as "a media entity to be reckoned with" (para. 3).

2010; Darian-Smith & Hamilton, 2012; Screen Australia, 2018a; Lobato & Scarlata, 2018).[62] Discussions over the lack of Australian content on Netflix echoes these concerns people had with television in Australia, whereby great amounts of imported content were perceived to be threatening to national culture.[63] This cultural argument posits that, as Australians, we need to maintain our voice and have representations of our local and national identities through storytelling. This is the basis for content quotas and regulations imposed across the Australian television industry. There is also an industrial argument; if less local content is produced, there will be less jobs in the Australian television and film industries (Davidson & Crowe, 2016; Cinque & Vincent, 2018).

For Australians, SVOD services addressed the demand for high profile American drama and comedy, allowing it to be streamed on demand at the time of its release in other countries (Bennett et. al., 2020, p. 85). Lobato (2019) observed that Australians are "more than happy to trade up their local dramas for higher-budget English-language Netflix programming" (p. 184). When Netflix launched in 2015, there were only 68 Australian movies and television shows in the catalogue (Scarlata 2015). A study conducted in 2017 found that local content made up around two per cent of the Australian Netflix library, sliding to 1.6 per cent in 2018, but this was primarily as a result of catalogue growth (Lobato & Scarlata, 2017).[64] Due to rights issues, the U.S. Netflix has always had more Australian titles in their library (Lobato & Scarlata, 2018). In 2020, the Australian Netflix catalogue has approximately 50 Australian titles, and the U.S. catalogue has over 70 (Netflix Media Center, 2020). Despite the Australian Netflix library having few Australian titles, Netflix is increasingly important for distributing Australian content internationally (Lobato & Scarlata, 2018).

While Netflix does not compare to broadcast television when it comes to delivering local content to Australians, it has aided the production and global distribution of local content (Lobato & Scarlata, 2018). In 2017, the Australian federal government began liaising with Netflix in order to bring more film and television projects to Australia. Trade Minister Steve Ciobo met with Netflix executives to push big budget projects in Australia (cited in Smith, 2017). This is part of a larger effort by the coalition to create a sustainable television industry, as interest from major

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[62] Public service stations such as the ABC and SBS are exempt from content regulations (Turnbull, 2010).
[63] In Australia, television has historically been an international medium whereby local content "is always experienced alongside and through the imported" (Lobato, 2019, p. 11).
[64] In 2018, Netflix had 82 Australian titles out of 4,959, in contrast to Stan, which had 172 titles out of 1,548, making up roughly 11 per cent of its library (Lobato & Scarlata, 2018).

studios and Netflix can help the industry grow and create job opportunities. Even though SVOD services challenge the commercial television industry, Ciobo believes that they can work together to produce high quality content in Australia. The following month, a multi-million dollar deal was made with Netflix. The SVOD service obtained global rights for *Cargo*, the first Australian Netflix Original, presenting a new business model for Australian content producers (Smith, 2017; Wiseman, 2017; Keast, 2017).[65]

Netflix has continued to partner with Australian institutions to produce original content. Journalists Camron Slessor and Isadora Bogle (2018) announced the TV series *Pine Gap* began filming in Australia, financed by Netflix and the ABC. The political thriller is anticipated to improve Australia's reputation for creating engaging content for international audiences, which is expected to trigger a wave of more locally produced content. South Australian Film Corp CEO Courtney Gibson reveals a bright future for Australian production with SVOD services:

> Right now South Australia has the very best rebates on offer in the country and because we have world-class studios, because we have absolutely peerless locations…we have this great heritage of film and TV production, we have great heads of department and great crews. We've never been better positioned to take advantage of the growing Australian business with the new streaming services (cited in Slessor & Bogle, 2018).

By 2020, Netflix had produced and distributed several original Australian series and films, but had also co-produced dozens of titles with FTA broadcasters. These efforts work to address the criticism that their local content lacks quality and diversity (Masige, 2020). The deals made between Netflix and the Australian government demonstrates that on-demand culture is perceived to be the future of televisual content.

4.5   Why is Netflix Perceived as Disruptive?

Netflix has been labelled as a disruptive technology by academics, journalists and professionals across the entertainment, technology, finance and advertising industries. Dubbed 'The Netflix Effect' and 'the Netflix paradigm', the service has been described as a transformative medium in

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[65] Cargo was released in Australian cinema on the Australian Netflix catalogue in 2018 (Mattes, 2018).

terms of its impact on media distribution, delivery and consumption across the globe (McDonald & Smith-Rowsey, 2016; Baird, 2015; Brett, 2017; Barker & Wiatrowski, 2017; Jenner, 2018; Lobato, 2019; Plothe & Buck, 2019; Buonanno, 2019). The perception of Netflix as disruptive is best captured by the demise of Blockbuster and concurrent rise of Netflix, the practice of self-disruption, its influence on binge-watching behaviour and the debate over whether Netflix is television. A disruptive technology refers to a new technology that significantly threatens, changes or replaces the ways industries and businesses operate or expands consumer markets and reshapes consumer behaviours (Chandler & Munday, 2020a; Doyle, 2016a; Christensen, 1997; Smith, 2019; Bailey, 2014; Solis, 2014; Waters, 2015; Bloomfield, 2016; Daley, 2016; Horn, 2016; Idato, 2017; Stingemore, 2017; Campbell, 2018; PwC UK 2018; Turner, 2019a).[66] Based on this definition, Netflix is disruptive; it has challenged the very concept of television and established new structures in television and film industries, expanded consumer markets around the world and contributed to the spread of binge-watching behaviours.

4.5.1   *Disruptive Innovation & Self-Disruption*

The demise of Blockbuster and concurrent rise of Netflix is often cited by academics, journalists, bloggers and professionals in technology, business and finance as a popular case example for disruptive innovation (Cocheo, 2017; Stingemore, 2017; DeBord, 2017; Hopp et. al., 2018). Throughout the 1990s and early 2000s, Blockbuster was a mature market leader dominating the entertainment rental industry, with an Initial Public Offering (IPO) of 4.8 Billion held by Viacom in 1999. In 2000, several offers to Blockbuster were made to sell Netflix for US$50 million. At the time, Netflix was a DVD-by-mail rental service, and these offers were declined. Business and economics scholars Hopp et. al. (2018) use the Disruptive Innovation Theory (DIT) framework to explain Netflix's position as a disruptor:

> To be disruptive, a business must first gain acceptance in the low end of the market, the segment by and large ignored by incumbents in lieu of more profitable high-end customers. A prime example is Netflix. The initial mail-order movie rental business was not appealing to a large group of Blockbuster customers. It appealed to a niche of film nerds. Only with the rise of technology, including eventually the ability to stream over the Internet, was Netflix able to grow its business and eventually offer on-demand movies and

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[66] Stingemore (2017) cites Netflix's take-down of Blockbuster as a case of digital disruption.

TV to a huge audience, conveniently and cost-effectively. It was the initial encroachment from the low-end of the market that made Netflix disruptive. A focus on a larger market segment initially might have induced a fighting response by Blockbuster. Gaining a low-end foothold allowed Netflix to move upmarket with a completely different business model that was eventually attractive to Blockbuster's core customers (para. 6).

Initially, Netflix was not perceived as threatening because Blockbuster had a monopoly in the market, and their long standing economic performance generated a false sense of security. However, the rise of internet streaming signalled a moment of "rupture and transition" for the rental industry (Burroughs, 2019b, p. 4). Netflix adopted the new technology, while Blockbuster remained complacent (Jamieson, 2016; Campbell, 2018).

Blockbuster's resistance to changing their brick-and-mortar business model ultimately led to their demise, as the rental giant could not navigate the cultural terrain that was being transformed. Blockbuster had brick-and-mortar stores all around the world. Changing their business model would have been an expensive move and thrown them into unfamiliar territory, but that is what they needed to do to survive. By the time Blockbuster began to implement digital tools it was too late. In 2010, Blockbuster was US$900 million in debt and filed for bankruptcy, with the company valued at 24 million (Campbell, 2018; Carr, 2010; Funding Universe, 2016). Blockbuster's rapid descent was such a powerful testament, that the term 'Blockbustered' emerged to caution businesses to fear complacency, prioritise the customer and even self-disrupt, as the rental conglomerate failed to implement emerging technologies quickly enough (Campbell, 2018).

Netflix is described as a "classic disruptor" that applied the "art of self-disruption" in order to succeed (Cocheo, 2017, para. 1).[67] Co-founder of Netflix Marc Randolph explains that disruption was intentionally leveraged in pursuit of success. The process involved risk-taking and "[looking] for pain" (cited in Cocheo, 2017, para. 29). For example, Netflix initially had dual roles—selling and renting DVDs—and it was the sales, not rentals, that most of their revenue came from. Despite strong DVD sales, the structure of the company was not going to succeed in the long run.

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[67] Business journalist Cocheo (2017) notes that Netflix's dominance in the home entertainment market was a long journey that is not always acknowledged.

Unlike Blockbuster, Netflix anticipated disruption and took action. Netflix dropped the high-revenue sales operation. Randolph reflects, "We bet everything on getting rental right...When you walk away from 99% of your income...it focuses your mind wonderfully." (cited in Cocheo, 2017, para. 60; 62). This is an example of self-disruption. Randolph explains "The idea is, try small steps, see what works and what doesn't. Adjust, repeat, and regroup...This saves time and costs—and keeps the lessons coming." (cited in Cocheo, 2017, para. 46–47). The decisions were not random but driven by purpose, as Randolph notes, "Ultimately, what counts is only what the audience thinks" (cited in Cocheo, 2017, para. 41). By strategically restructuring itself, Netflix became a powerful force opening up a competitive market of SVOD services, and a new way to experience entertainment in the home (Jamieson, 2016).

Lotz (2014) recalls that 2010 marked the beginning of a "Netflix Surge", during which Netflix provided a disruptive model for internet-distributed, nonlinear television (p. 70). Netflix succeeded by leveraging streaming technology, which ultimately upended Blockbuster's business model.[68] The experience led Randolph to learn the harm of complacency, he observed, "If you don't disrupt yourself, someone will come along and disrupt things for you" (cited in Cocheo, 2017, para. 14). Indeed, shifting from a DVD distributor to a digital content producer and distributor is thought to be one of the most disruptive characteristics of Netflix (Joshi, 2019; MacDonald, 2014).

Netflix evolved from an American service to a global media company, or "global TV network"; arriving in Canada in 2010, Latin America in 2011, parts of Europe between 2012 and 2013, and Australia, New Zealand and Japan in 2015 (Lobato, 2019, p. 16). In 2016, Netflix was available in 130 new countries and was viewed as "a disruptive interloper" rather than "a savvy competitor" due to its rapid internationalisation (McDonald & Smith-Rowsey, 2016, p. 24; Lobato, 2019).[69] In 2021, Netflix is available in 190 countries (Netflix Media Center, 2021).

4.5.2   *The Rise of Binge-Watching*

The ubiquity of binge-watching—the term and the practice—runs parallel to the rise of Netflix (Jenner, 2014; Baird, 2015; Case, 2017; Pilipets, 2019; Boca, 2019; Steiner & Xu, 2020). There is a perception that Netflix invented binge-watching, but it is more accurate to say that Netflix is

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[68] Netflix's status as a disruptor has meant its economic performance is closely watched and persistently predicted and reported on (Sweney, 2013; Levin, 2013; Walters, 2019; Schomer, 2020; Aten, 2020).
[69] Nevertheless, Netflix is significant in global media discourse, as it brought a strong transnational dimension to television distribution (Lobato, 2019).

a driver of binge-watching. Hallinan and Striphas (2016) observe that binge-watching "grew out of Netflix's analysis of viewing data, which showed its streaming customers tended to watch several TV episodes back to back instead of one at a time" (p. 129). However, we already know that binge-watching existed before this data with network reruns, movie marathons, DVDs and the DVR.

Despite the insight that Netflix users prefer to watch more than one episode at a time, binge-watchers are not perceived as passive 'couch potatoes' as has been the case with television (Perks, 2014). Instead, Netflix users are seen as active participants "in a complex alchemy of audiovisual matchmaking" as they consistently navigate the service, seeking titles that interest them (Hallinan & Striphas, 2016, p. 117; Pilipets, 2019).[70] In support of the argument that binge-watchers are active, Jenner (2014) believes that the phenomenon of binge-watching is disconnected from television because it is afforded by autonomous scheduling. Autonomous scheduling is the ability to watch whatever (the content you like), whenever (at the time you want), wherever (at home or on the move) and however (through a device of your choice).

Since internet streaming and piracy, people have had greater options for watching what they want, when they want and in the way they want; back to back episodes with no advertising structure. Netflix catered to this market of people who desired an autonomous viewing experience. This is an example of how Netflix expands consumer markets and reshapes consumer behaviours, a characteristic of disruptive technologies (Chandler & Munday, 2020a; Doyle, 2016a; Smith, 2019). Netflix did not create a culture of binge-watchers, but enabled and normalised it by filling out this demand, and leveraging the practice as a marketing tool (Perks, 2014; Baird, 2015; Nield, 2017; Case, 2017).

Netflix executives were initially hesitant to use the term 'binge-watching', however. In 2013, Vice President of Product Todd Yellin reportedly said "I don't like the term 'binge,' because it sounds almost pathological. 'Marathon' sounds more celebratory" (cited in Rodriguez, 2019, para. 7). Netflix tried to use other verbs, like 'marathon' viewing, but they never caught on, leading

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[70] Indeed, different terms have been used to describe the consumption of television for extended periods. The expression 'couch potato' dates back to the 1970s, and denotes passivity and laziness; perhaps because it is associated with the consumption of programming that has been scheduled for you. Comparatively, the phrase 'marathon watching', as we have seen, suggests effort and might represent a kind of active accomplishment because it refers to the consumption of a single TV or film series—despite it still being chosen for you (Perks, 2014).

them to embrace binge-watching, which was already gathering momentum in public discourse (Rodriguez, 2019). In 2013, Netflix began to champion the SVOD landscape around the world and leaned into the phrase 'binge-watching', using it as part of its marketing. In the same year, the term 'binge-watch' was shortlisted for Oxford Dictionaries' Word of the Year (Steiner & Xu, 2020; D'Souza, 2020).

Evidently, both the phrase and the experience of binge-watching has become tightly entangled with Netflix. Netflix strategically encourages binge-watching through its design by not including ad-breaks, autoplaying the next episode and suggesting more content to watch. Because of the negative connotations of the word 'binge', Netflix's role in driving binge-watching behaviour is another reason it is perceived as disruptive, in the sense that it is damaging or harmful (Idato, 2017; Turner, 2019b). The following chapter will explore what binge-watching means for individual users. Particularly, I look at whether they believe it is positive and liberating or feel a loss of control as other binging contexts suggest.

4.5.3 Is Netflix Television?

The debate over whether Netflix is television in popular and academic discourse largely coincides with discussions around how disruptive it is. The answer to the question 'is Netflix television?' is complex because television has never been just one thing and neither has Netflix. Depending on who you ask, Netflix can mean many different things, including an internet company, technology brand, software system, global distributor, big-data business, and even a ritual or "mode of spectatorship" (Lobato, 2019, p. 38). Similarly, there are a number of aspects that shape our experience and understanding of television. There is the physical apparatus that content is consumed through, the infrastructure that allows content to be distributed, specific modes of content production, and the delivery of content through linear scheduling. Netflix is perceived as disruptive because it challenges or moves away from these models, thereby reorganising existing structures of media industries (Jenner, 2018; McDonald & Smith-Rowsey, 2016; Barker & Wiatrowski, 2017; Plothe & Buck, 2019; Lobato, 2019).

Jenner (2014) observes that television has never been a stable object, and argues that Netflix has driven the continuation of the existing periodisation of television history—TVI, TVII, TVIII and

TVIV—which represent key technological shifts associated with the medium.[71] Television studies scholars often use this division of television history as broad guideposts to make sense of the ever-evolving complex medium (Jenner, 2014, p. 260; Rogers et. al., 2002; Johnson, 2007; Pearson, 2011). TVI represents the initial period of television, when there were few networks and channels available that were viewed by a mass audience. TVII is the era of network and channel expansion, the introduction of quality television and the development of branding strategies by networks. TVIII is characterised by digital and on-demand distribution platforms, accelerating an increasingly competitive market leading to greater audience fragmentation (Pearson, 2011; Jenner, 2014). Netflix does align with some aspects of TVIII, but also represents significant shifts that imply a new period of television history, TVIV, which includes a range of other media forms, reimagining the concept of television altogether (Jenner, 2014).

There are a number of arguments for why Netflix is not television, and yet "Netflix is often perceived as television" in popular and academic discourse (Jenner, 2018, p. 5).[72] Most significantly, Netflix's business model does not employ advertising breaks, relieving users from the constraints of linear television and mobilising greater freedom through self-scheduling (Boca, 2019; Jenner, 2018). However, there is a perception that Netflix does not omit—but reimagines— the idea of a linear viewing schedule; the SVOD service mimics the broadcasting experience by promoting the idea that not watching a title as soon as it is available in the catalogue will mean users are left behind (Tryon, 2015, p. 107; Boca, 2019, p. 10; Burroughs, 2019b).

Currently, the Australian government does not bind Netflix by the same laws it does for cable and traditional broadcasters, explicitly saying that Netflix is not television. However, these regulations are under review by the Australian Communications and Media Authority (ACMA), working towards equitable competition in the industry (Tucker, 2016; Winsor, 2016; Cassar, 2016; Davidson & Crowe, 2016; Deloitte, 2018; Screen Australia, 2018a; Keast, 2020). Netflix is distinct from television as it has different "branding strategies, associated viewing patterns, technologies, industry structures or programming" and is an internet-enabled transnational broadcaster that integrates itself into national media systems all around the world (Jenner, 2014,

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[71] These periods of television history are specific to the U.S., where television existed for roughly a decade before it arrived in Australia. However, they remain useful signposts for the history of television in Australia, which had a similar—albeit delayed—trajectory.
[72] The 'liveness' of network television, for example, through reality competition shows with live voting, is currently not a format Netflix provides. The television industry pushes for increased live broadcasting through social media live-tweeting, live voting, awards shows and sporting events.

p. 3; Burroughs, 2019b). However, it is clear that Netflix is in the same arena as television because they compete with each other.

Netflix is comparable to television because it attempts to replicate aspects of it, like the promotion of content and production of drama serials. Netflix has built its own branding structure, 'Netflix Originals', to signpost its original content, which has allowed the SVOD service to inject itself into the realm of television through the production of high quality drama serials. In 2013, Netflix founder and CEO Reed Hastings revealed the company's goal "is to become HBO faster than HBO can become us" (cited in Sweney, 2013, para. 4). Central to HBO's brand identity is the distribution of high-quality original drama.[73] The first Netflix Original to be produced was *House of Cards*, an adaptation of a television series with the same title aired on an American cable network. By imitating HBO's branding strategy in producing dramatic content, Netflix positioned itself as a competitor to cable networks, rather than other internet broadcasters like YouTube, implicitly defining itself as television (Jenner, 2018).[74] Lotz (2014) believes that HBO and Netflix are more alike than they are different, as both are subscription services not supported by advertisers.

Even though Netflix has entered the world of television by striving to legitimise its products and directly compete with television networks, the SVOD service still distinguishes itself by pronouncing that they are leaders of 'internet television' (Burroughs, 2019b). Internet television refers to professionally produced content that is distributed and received through websites, digital services, platforms, and apps, as opposed to through broadcast, cable, or satellite systems (Lotz, 2017; Lobato, 2019). Netflix's CCO Sarandos noted that receiving Emmy nominations and Golden Globe awards for their TV shows validates Netflix as a viable form of quality entertainment, and has elevated SVOD services to the same arena as traditional television (Levin, 2013; Burroughs, 2019b).

However, Burroughs (2019b) explains some of the ways Netflix provides experiences beyond what the traditional industry can do. For example, not having to use redundancy or 'tells' within a TV show to remind viewers of the story arc allows for more freedom in the production of narrative structures. This facilitates more complex and engaging storylines, servicing fans and

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[73] Home Box Office (HBO) is an American pay-tv network.
[74] Ironically, HBO has historically marketed itself as 'not TV' in an attempt to set the network apart from others in the competitive industry, yet, Netflix invited itself into the industry and simultaneously affirmed HBO's position as television (Jenner, 2018).

binge-watchers alike (Burroughs, 2019b). Netflix flouts the life cycle of content set by the television industry by promoting long-form viewing; a flow of programming that is not punctuated by commercial breaks, weekly waiting periods between episodes, or months between seasons. Netflix users can thus more deeply engage and connect with narratives (Burroughs, 2018). New media expert of technology company Intel, Tawny Schlieski feels that television is characterised by this ongoing engagement with characters and stories:

> TV for me is [serialised] content in our home...It provides us with characters and continuity that we want to invite into our intimate spaces over and over again. That isn't going anywhere (cited in Given, 2016, p. 119).

In the extract above, Schilieski suggests that serialised content—however it is delivered—is television (Given, 2016). However, experientially, SVOD services like Netflix are not quite the same as television. Television will tell you what is important and what you should be paying attention to through repetition and scheduling. Television will tell you to go to bed, because infomercials will come on. Netflix does not do this. Netflix actually wants you to keep watching. Netflix will autoplay the next episode and suggest more content it thinks you might like, even though you have been binging all night, and the sun is coming up.[75] In addition, the most popular mode of viewing among Australians is through personal devices, such as laptops as opposed to an actual TV (Zaharov, 2018). The analysis of Netflix users' individual reflections in the following chapter allows me to enter this debate about whether Netflix is considered television or if it has simply meant that our understanding of television is changing.

The question of whether Netflix is television overlooks the fact that television has been consistently changing and evolving. As we have seen throughout this chapter, there have been a number of significant changes in the history of television. In terms of consumption, television has been communal and independent; in relation to production, it can be both live or recorded, and regarding distribution and delivery, it can include advertising breaks (FTA networks) and also be free of advertising breaks (public broadcasters, pay-TV) (McDonald & Smith-Rowsey, 2016; Bennett et. al., 2018; Jenner, 2018; Lobato, 2019). Steiner and Xu (2020) acknowledge the shifting identity of television:

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[75] 'Autoplay next episode' is a feature on Netflix that rolls from one episode of a TV show to the next, with a 10 second countdown in between. There is also a 'are you still watching?' pop-up that asks viewers if they want to continue watching or not after there has been no remote activity for a period of time. In the next chapter, participants describe how this feature influences their viewing habits.

> Television's identity has been complicated in the 21st century by an expansion of what constitutes TV...Under this newer conception, the viewer and broadcaster share some control over the content and distribution of TV (p. 84).

Building on Steiner and Xu above, Netflix contributes to the transforming conceptions of television and forces broadcasters to reinvent themselves by emphasising concepts of control (more agency) and choice (greater access) in viewing experiences (Jenner, 2018). However, Jenner (2018) believes that this does not reflect a substantial shift in power between audiences and industry, but rather it restructures the way control and power are organised.

Netflix has had a significant role in the reconceptualisation of television by simultaneously challenging, imitating, extending, and transforming various aspects of it (Boca, 2019; Jenner, 2018). Television is no longer FTA or subscription broadcasting through a television set, and is now an umbrella term to describe the diverse landscape of how programs are transmitted to audiences. Drawing on Shahaf and Ferrari (2019) and other scholars who seek to understand the relationship between media and audiences, this thesis adopts the term 'televisual':

> ...as 'the medium formerly known as television' continues to evolve from a relatively contained apparatus into a more flexible framework, we humbly offer that perhaps a transition in the field can move us from discussion of television as the focal point to a more flexible discussion of the televisual, a move that has earlier manifestations in works by John Caldwell (1995), Jonathan Gray (2003), Lisa Parks (2005) and Amanda Lotz (2007) (p. 155).

Television has transcended the 'contained apparatus', and a discussion of the televisual represents the various modes of production, distribution, delivery and consumption of televisual texts. Media and communication scholars have been increasingly referring to the 'televisual' to reflect the complex and shifting mediascape (Cinque & Vincent, 2018; Buonanno, 2019; Shahaf & Ferrari, 2019). In this thesis, television and televisual are distinct terms. Television refers to content that is broadcasted and viewed through a TV screen. The concept of the televisual refers to the vast and ever-changing ecosystem of screen entertainment, which includes television but also professionally produced content—shows, films, documentaries and so on—viewed on any screen, through any service, in the home or on the move.

4.5.4   A Televisual World

The perception of Netflix as disruptive emphasises its position as a prominent actor influencing the composition of our televisual world. This is illustrated by the number of books dedicated to understanding the role and impact of the media giant on cultural, economic, technological and political developments (McDonald & Smith-Rowsey, 2016; Barker & Wiatrowski, 2017; Jenner, 2018; Lobato, 2019). Despite the urge to proclaim Netflix as the singular power driving change in the televisual ecosystem—as suggested by the titles of works such as *The Netflix Effect* and *The Age of Netflix*—Netflix is not considered a supreme innovator, but a transformative agent that forced industrial revolution (McDonald & Smith-Rowsey, 2016; Barker & Wiatrowski, 2017; Lotz, 2014).[76] This is supported by Jenner (2018) in her book *Netflix and the Reinvention of Television*. Jenner describes Netflix as a powerful force—but not the only force—in the reconception of television. Netflix's impact was possible by building on and merging pre-existing business models:

> The DVD rental service of course combined the video store with Amazon's nationwide shipping practices. The move to streaming video followed both Apple's iTunes store and similar streaming platforms developed by U.S. and U.K. broadcasters. The shift from licensed content to original products mirrored the path traveled by countless American cable channels, from HBO to TNT to MTV (Barker & Wiatrowski, 2017, p. 15).

Indeed, Netflix was particularly forceful because it built on past technologies and practices and embraced new ones (McDonald & Smith-Rowsey, 2016; Barker & Wiatrowski, 2017). In 2016, McDonald and Smith-Rowsey's book *The Netflix Effect: Technology and Entertainment in the 21st Century* positioned Netflix as an object of insight:

> If there is a singular Netflix effect, it may simply be that technology and entertainment are merging at an accelerating rate and seriously impacting the business and economics of mass media...this effect is connected to other larger developments...the specificity of Netflix provides key insights into how these

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[76] Both *The Netflix Effect* and *The Age of Netflix* are a collection of essays by scholars and industry professionals across technology, film, television, communications, branding and media management that trace and discuss the various implications Netflix has had as it further integrates itself into everyday life.

> developments will shape media, technology, and society moving forward (McDonald & Smith-Rowsey, 2016, p. 24).

Netflix is described as a "central force in the contemporary experience of media consumption" that has radically altered the ways in which media and technology—not just television—are engaged with and talked about (Barker & Wiatrowski, 2017, p. 1). More recently, in the book *Netflix Nations*, Lobato (2019) also speaks of Netflix as a resource for developing insights around the relationship between television and internet distribution as well as reviewing critical debates in global media studies.

On a global scale, Netflix has not had a "uniformly disruptive effect", but rather varied effects across different national contexts (Lobato, 2019, p. 212). According to Lobato (2019), Netflix has been disruptive in English-language markets, been a niche service with modest success across Europe and Latin America and has had no impact at all in Africa and the Middle East. Turner (2019a) believes Netflix prompted a gradual evolution in English-language countries like the United States and United Kingdom, compared to a sudden shift in domestic consumption practices in Australia. Indeed, in Australia, Netflix is considered to be a specifically disruptive force; its rapid adoption had a significant impact on the local television industry and distributional infrastructure (Lobato, 2019; Turner, 2019a). What we still do not know is what the user experience of this 'disruptive technology' looks like in Australia. Turner (2019a) argues:

> There is more to be done in terms of finding ways to describe and understand the cultures of use that have developed around the multiple options now available to consumers through which their personalised practices of television consumption can be articulated to the structures of their everyday lives… (p. 226).

By analysing and discussing interviews with 14 Netflix users in Australia using the D-E Model, the following chapter will address this gap in the literature in seeking to understand the user experience of Netflix in its first years of operation in Australia between 2015 and 2018.

4.6   Summary

This chapter reviews the history of television watching, internet streaming, piracy, viewer agency, binge-watching and the arrival of SVOD services in Australia in order to understand Netflix's

label as a disruptor and contextualise user experiences. There have been a number of significant changes in the history of television. In terms of consumption, television viewing has been communal and independent, in relation to production, it can be both live or recorded, and regarding distribution and delivery, it can include advertising breaks and also be free of advertising breaks (McDonald & Smith-Rowsey, 2016; Bennett et. al., 2018; Jenner, 2018; Lobato, 2019). The arrival of Netflix led to more personalised viewing experiences, and its popularity in Australia also coincided with a significant decline in piracy (Roy Morgan, 2016; Quinn, 2017; Screen Australia, 2017; Whigham, 2018). Accruing almost three million subscribers in its first year, Netflix has championed the national SVOD market with over 12 million subscribers in 2021 (Roy Morgan, 2021; Quinn, 2017; Screen Australia, 2017; Whigham, 2018).

Netflix has been labelled as a disruptive technology due to its impact on media distribution, delivery and consumption across the globe (McDonald & Smith-Rowsey, 2016; Baird, 2015; Brett, 2017; Barker & Wiatrowski, 2017; Jenner, 2018; Lobato, 2019; Plothe & Buck, 2019; Buonanno, 2019). Most notably, Netflix eclipsed media conglomerate Blockbuster, and contributed to the reconceptualisation of television, and mainstreamed binge-watching (McDonald, 2013; Carr, 2010; Stelter, 2013; Stingemore, 2017; Nield, 2017; Case, 2017; Campbell, 2018; Jenner, 2018; Turner, 2019b).

This chapter illustrates that Netflix exists in a complex network of elements with their own extensive histories. Reviewing these elements orients our understanding of the associated ideas, themes, theories and criticisms of Netflix that provide context for investigating the user experience. In the following chapter, I detail the perceptions, habits and practices of Australian Netflix users in order to produce a richer and more enhanced picture of how media technology Netflix is experienced on the ground.

5
Experiencing Netflix

5.1 Introduction

This chapter presents an analysis and discussion of the user experience of Netflix in Australia, which has been perceived as a dramatic disruption following its arrival in 2015 (Turner, 2018; Turner, 2019a; Bennett et. al., 2020). Netflix has been labelled a disruptive technology, but beyond data trends and generalisations of consumer practice, there is no clear picture regarding the user experience within the framework of disruption. Drawing on interviews with 14 Netflix users from the city of Wollongong in NSW, Australia, I unpack what the user experience of the SVOD service actually looks like. Participants were interviewed between July and September 2018, and the sample included seven men and seven women of which the youngest was 19 and the eldest was 54.

Structured around three key themes, this chapter explores how participants integrated Netflix into their everyday life by analysing their thoughts, feelings and behaviours in relation to the SVOD service. The first key theme, 'Arrival & Integration' examines how internet piracy and Netflix led to new experiences and expectations regarding the delivery of televisual media. The second key theme, 'Agency' explores how participants like being able to interact with Netflix in a way that is totally different to television because it is nonlinear, personalised and free of ad-breaks. However, the flipside of this is being overwhelmed with choice and the pressure to self-regulate. The third key theme, 'Binge-watching' examines the binge-watching behaviours of participants, in particular the significance of how they use their attention, the ways and reasons they binge and whether it is problematic.

To address the primary research question, 'how can we better understand the user experience of technologies that have been perceived as disruptive?' I discuss my findings using the Disruption-Experience Model (D-E Model). The D-E Model identifies three core concepts: stabilisation, which is a sustaining experience whereby thoughts, feelings and practices are reinforced; destabilisation, which is a dysfunctional experience whereby thoughts, feelings and practices are undermined; and transformation, which is a novel experience whereby thoughts, feelings and

practices are dramatically shifting. The model offers a language to account for the multiplicitous and sometimes contradictory experiences that are occurring, as interview participants reflect on various aspects of the media technology. The purpose of the model, and this chapter, is to produce a clearer picture of how Netflix is experienced on the ground while providing some nuance to the discourse around disruptive technologies.

5.2   Arrival & Integration

The demand for Netflix in Australia has been extraordinary. Netflix was swiftly adopted, accruing three million subscribers in its first year. Currently, Netflix is the most popular SVOD service in Australia with over 14 million monthly viewers (Roy Morgan, 2021). Prior to the official arrival of Netflix in 2015, many Australians were using VPNs (virtual private networks) to illicitly access Netflix catalogues in other countries and engaging in internet piracy to access televisual content (Turner, 2018; Lobato, 2019).[77] Responses from my participants reflect this trend. Dean, age 24, recounts, "The VPN is what we used to do to access American and Canadian titles...because it's like British Netflix has the best movies, American Netflix has the most, Canadian Netflix has the best TV shows…"[78] Indigo, age 30, said that torrenting (illegal file sharing systems using the internet) "was really how I consumed most TV shows" prior to Netflix.[79] In 2014, it was estimated that at least 20 per cent of Australians use a VPN to circumvent geo-blocking and make their digital activities untraceable, with around 200 thousand Australians using a VPN to access the U.S. Netflix (Lobato & Ewing, 2014; Pinantoan, 2014).[80]

In March 2015—the same month Netflix arrived—a data retention bill was introduced in Australia, intensifying the risk of fines and imprisonment for people who engage in internet piracy or 'pirates' (Reilly, 2015a).[81] This led to a 500 per cent uptick in VPN usage in Australia, with

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[77] According to Butterfield et. al. (2016) in the *Dictionary of Computer Science*, a VPN effectively masks the user's internet protocol (IP) address, so that their location is anonymous and online activity is untraceable.

[78] VPNs provided a workaround whereby people can sign up to Netflix in other countries by using a credit card and fake residential address (Lobato, 2019).

[79] According to Screen Australia (2017), Australians aged 25–34 were most likely to engage in piracy, which was reflected in the interviews with participants.

[80] According to Law (2018) in the *Dictionary of Law*, Geoblocking refers to the restriction of access to certain content through the Internet based on geographical location.

[81] This means that Australian Internet Service Providers (ISPs) and telecommunications carriers are now required by law to retain customer metadata for at least two years. This makes it easier to identify and charge people engaging in internet piracy (Reilly, 2015a).

the dominant demographic being 18 to 34 and the primary reason was to protect their identities while illegally accessing entertainment from overseas services (Reilly, 2015b). It was not until 2016 that the U.S. Netflix introduced an anti-proxy policy to block VPN users and the Australian government blocked piracy websites. By this stage, the Australian Netflix was quickly embraced as an alternative to piracy and VPN usage (Lobato, 2019).[82]

5.2.1 *Internet Piracy*

Most of the participants I interviewed between the ages of 24 and 41 identified internet piracy as the middle-man between television and Netflix. Detailing participants' experience with piracy is critical for understanding what the arrival of Netflix meant for them. Piracy transformed these participants' viewing experiences by completely replacing or greatly supplementing their television viewing and creating new expectations around accessing and viewing entertainment.

Most participants who engaged in internet piracy downloaded titles using a torrenting service, but some would also illegally stream content on a website or borrow hard drives from friends who had downloaded pirated content. In contrast to just switching on a television and sifting through channels, downloading content illegally involves using a device with internet connectivity—participants typically used a laptop or personal computer—installing a torrenting software, and browsing a torrenting website, like PirateBay, to locate titles. Compared to television, the process requires some time and work. The process of downloading in particular could be tedious and unreliable. Jess, age 24, explains "When you download stuff...you need to see if it's actually available to do that, and then there's no guarantee. Then you download it, and it's in another language…" Gus, age 25 explains the labour involved in managing their illegal downloads:

> The work of downloading, organising the library...I guess that's something I used to put a bit of effort into. If I downloaded a torrent, the file would be a long title with underscores and things like that...I would like... organise it into series, episodes and the name of the episode and then organise them into the folders... generally I just had them sort of in alphabetical order. By the name of the film or the name of the series.

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[82] Netflix was in no hurry to crack down on VPN users because, after all, they were paying customers (Lobato, 2019).

A number of participants would spend time organising the content they downloaded, like Gus, and storing it all on an external hard drive. However, the work can go to waste when the hard drives fail, Dean (24) notes "you've got to have endless hard drives...and then your hard drives stop working, and you've lost it all." Despite the effort involved in acquiring, managing and storing content, participants felt internet piracy was extremely worthwhile.

Internet piracy was a novel viewing experience for participants who had watched television their whole life. It provided more access to the entertainment they wanted to watch and more control over how they watched. This, in addition to it being cost-free, was the primary appeal of internet piracy. Hannah, age 25, explains:

> It was free, but like there's just so much more that you could access as well...I was getting a bit over like what they had at my local [rental store]...especially if I was looking for something in particular, I can just go find it. Whereas it's like, hmm, I'm only limited to what this Blockbuster has...

Indeed, the inability to access a large library of desired content drove participants' pirating habits. Prior to internet streaming and piracy, many Australians participated in rental culture as FTA television was not diverse enough in addition to the expense of pay-TV (Australian Home Entertainment Distributors Association, 2015; Pertierra & Turner, 2013, p. 7–8). Not only were local rental stores limited in terms of what they could hold on the shelves, as Hannah suggests above, participants felt that consistently renting and purchasing DVDs was unaffordable and inconvenient. Gus (25) emphasises their frustration:

> The conversation was 'people shouldn't be downloading illegally' and that was fine, but then there was no service there to access movies... it wasn't affordable, they wanted you to buy movies individually.

In addition, Gus explains that autonomous scheduling—the ability to watch whatever you want whenever you want—was a motivator for accessing content illegally:

> In terms of Austar in comparison to Netflix is the flexibility and the time that I can watch it, obviously because it's fixated on Foxtel which is annoying. Who knows if we're going to be available at 3.30 to watch Jurassic Park...with

> downloading I can watch whenever...That was a motivator [for downloading content].

For all of these reasons—access, cost, autonomy—there was a great propensity for internet piracy among participants, and it completely changed the way they experienced entertainment in the home. For example, when describing her reason for pirating, Jess (24) says "I could watch what I wanted when I wanted compared to just having to wait for things or not liking anything on TV." Jess mentions a critical issue with Australian television; "having to wait for things" is one of the reasons participants sought new ways of accessing entertainment.

Referred to as 'The Great Australian TV Delay', Australians experience a significant delay in terms of when overseas content becomes available to watch on television, and this is a problem because Australians prefer to watch American TV shows (Spencer, 2014; 2015; Lobato, 2019). The delay could be why Australia's piracy rates have outpaced any other country, as people like to download and watch shows as they are released overseas (Starr, 2016). In 2014, international TV shows took on average 54 days to air on television, with 29 per cent of Australians accessing pirated content (Spencer, 2014; Quinn, 2017). In 2015, the average delay of international TV shows was 37 days, piracy fell to 24 per cent, and SVOD services Netflix and Stan arrived (Spencer, 2015; Quinn, 2017). In both 2014 and 2015, roughly 30 per cent of international TV shows did not provide a specific air date or confirm whether the show will even air in Australia (Spencer, 2014; 2015). These trends, in addition to the responses from my participants, suggest that delay to television, the uncertainty of shows being released in Australia at all, and the limited autonomy with television likely led Australians to engage in internet piracy.

5.2.2   *Transition to Netflix*

Netflix has been perceived as a transformative agent, however, for participants who engaged in internet piracy, the arrival of Netflix was mostly stabilising. This is because they were already accessing content in the way they wanted. Netflix offered what piracy offered: greater access to content and autonomous scheduling. Participants' viewing experiences did change as a result of Netflix, but this often looked like a continuation of existing practices, rather than anything drastically different. Netflix changed participants' experience in three key ways: it relieved them from the labour involved in acquiring, managing and storing content; it had additional features that make viewing more convenient and enjoyable; it was legal. Jess (24) explains:

> I didn't have to do the labour of downloading, as well as always having subtitles accessible, because I watch things with subtitles, the accessibility of being able to be where you're up to and not have to physically find that...Also, I guess, not having to face the consequences of being caught if you were downloading.

Netflix was stabilising for pirates because it operated in a familiar framework. Netflix utilised existing technology, internet streaming, that was popular among pirates, and catered to the way they wanted to watch, which is typically more than one episode of a TV show at whatever time they please (Jenner, 2015; Boca, 2019; Pilipets, 2019; Hallinan & Striphas, 2016). For some participants, like Jess, it was the convenience of accessing content and the extra control functions that made a difference in her viewing experience, and the fact it was legal was a bonus. Gus (25) reflects:

> I was pretty content with what I was doing at the time, which was torrenting. I had apprehensions about whether that would be able to continue because there was different legal cases, like the one with that Matthew McConaughey movie where they were apparently getting in trouble everyone who had downloaded that...those sorts of changes are probably what drove me to Netflix. I wouldn't be interested in it if I could still just download whatever I wanted...The fact that website like Pirate Bay were always getting taken down...making it harder to actually do that...From what I've tried to download, which is just a movie every now and then...when you search a movie, there's less seeders. Which means it's going to take more time to download it. But it also kind of suggests that the community of people doing it is less as well.

Had it not been for the new legislation targeting internet piracy, Netflix may not have won over as many pirates. Participants' decision to use the service was not simply because it was available, as many were accessing overseas Netflix catalogues anyway, but because of the nationwide crackdown on piracy in 2016. When the Australian government began to fine people and seize torrenting websites, it was inconvenient at best and troubling at worst for participants who were illegally downloading content. Like Gus, a number of participants described the difficulty of pirating, which now involved more effort, more time and more risk. Chiara, age 28, feels that now there is an increased kind of technical literacy required to be able to access content illegally, a deviation from initial or previous expectations for the practice:

> I actually don't think I'm savvy enough, like I couldn't illegally download something myself anymore. I feel like it's moved to this other system...it's gone beyond my level of technical skill.

The removal of torrenting websites and financial penalties were significant barriers for pirates to continue the practice. Indigo (30) notes that these interventions caused them to re-evaluate their decision to pirate "I'm like, oh do I really want to be going down this path?" This suggests Indigo's beliefs about piracy were being challenged. Simultaneously, the Australian government was undermining the illegal file sharing community and SVOD services were arriving. The transition to Netflix offered relief; Indigo expressed that accessing content "The pure legal way" made them feel good. However, I got the sense from participants that had there been no crackdown on piracy, they would still be heavily engaging in the practice.

The widespread adoption of Netflix into Australian homes is thought to be a contributing factor in the decline of piracy, because people now had a legal alternative for a reasonable price (Screen Australia, 2017; 2018a; Quinn, 2017).[83] Participants' experiences provide qualitative insight into the declining piracy rates in Australia following the arrival of Netflix in 2015. In 2014, 29 per cent of Australians reported watching pirated content. By 2017, the government's site-blocking laws were in effect and the figure had slid to 16 per cent (Quinn, 2017). At this time, Netflix had 7.5 million users and around half of all SVOD users reported that they do not illegally download or stream content as often as they used to (Screen Australia, 2017; 2018a). Reflections from my participants in addition to downward piracy trends suggest that pirates are willing to access content legally if it is at an affordable price point and they can maintain a similar degree of autonomy around their viewing.

For many participants who pirated, it was an immediate yet seamless switch from piracy to Netflix. Matt, age 25, reflects "I would've been downloading illegally on UTorrent religiously and I'm talking the whole family...I stopped doing it as soon as Netflix came out." For others, however, the transition was more progressive. Dean (24) recounts a phasing out period from piracy to Netflix:

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[83] Blogger Perez (2018) announced that Netflix was the top non-gaming application in 2017; the growth prospects of Netflix in 2017 were as strong as ever, after the service spread across international geographies.

> I pretty much used to download exclusively, then I got Netflix and it was sort of like 50/50, if Netflix didn't have it I'd download it. And then now with Netflix, Foxtel, Stan, even if they don't have something, I probably won't bother to download it because I will find something eventually…its exposed me to new content that I probably would never have been able to access before...I think what made it stick was just accessibility...instead of having to wait every week for a new episode of a show you liked, it's all there...easy to access...It can be put on multiple devices.

Again, there is an emphasis on access and autonomy. Dean did not want to wait to watch what he wanted, and eventually began using Netflix more because of its convenience and to discover new content.

Regardless of how quickly participants integrated Netflix into daily life, the process was somewhat elusive. Most participants could not actually recall exactly when Netflix came to Australia. Chiara (28) reflects, "I really am actually struggling to pinpoint when I got Netflix." The adoption of Netflix was not memorable because many were already accessing Netflix via VPN or consuming content in a similar way through internet piracy. This suggests that illegally accessing content led them to establish new expectations regarding televisual experiences, which somewhat primed them for Netflix's arrival. Gus (25) identifies the transition "That's probably the shift. Like it went definitely from television, to [pirating], to Netflix." It is this sentiment, which was shared among participants, that leads me to describe piracy as the 'middle-man' between television and Netflix.

The ACF (Australian Cultural Fields) project, which included interviews with individuals about television usage in everyday life between 2016 and 2017, revealed that the swift adoption of Netflix transformed viewing habits in Australia (Turner, 2019a; 2019b; Bennett et. al., 2020).[84] There have not been any findings published from the ACF project that detail piracy usage, which is where my research can meaningfully contribute. Among my participants, internet piracy had a significant role in shifting viewing habits for those who engaged in the practice. However, my

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[84] The ACF was led by Tony Bennett and contributed to by Graeme Turner. It began with a questionnaire, distributed to 1400 Australians in 2014, and follow-up interviews with 45 participants between 2016–2017 (Turner, 2019a; 2019b).

findings might also help explain, in part, why Netflix was a qualitatively new experience for people who primarily watched FTA television prior to its arrival. Many participants I interviewed felt that FTA television in Australia lacked quality and diversity and sought alternative ways to consume content. This is in line with Turner's (2019a) account of the ACF findings:

> Some of the interviewees who had previously reported watching only FTA TV now watched none; in a representative example, one interviewee had gone from watching FTA TV in her parents' living room to watching Netflix on an Xbox with her boyfriend in their apartment. A tendency towards the individualisation of consumption and the decline of the influence of the family upon the viewing habits of younger respondents was evident in the fact that the vast majority of interviewees under 35 watched no FTA TV at all. Many said that this was a deliberate choice: they were 'over FTA', they had little interest in commercial mass media offerings and they appreciated the freedom that digital technologies provided (pp. 224–225).

While this seems to be the dominant trajectory for Australians under 35, as Turner has suggested above, it may also be true for immigrants. While all of my participants expressed some distaste for local content on FTA television in Australia, both Bianca, a 40 year old female born in South Africa, and Fox, a 40 year old male born in Norway, had a particularly strong aversion to it. This provides greater nuance to the ACF findings and additional context for Lobato's (2019) assertion that Australians prefer high-budget dramas from overseas. Netflix attracted Australians that are 'over FTA' with its extensive content catalogue (Turner, 2019a, p. 224). Fox, who immigrated when he was 25, described FTA in Australia as "absolutely woeful." Even though Bianca—who immigrated when she was 22—does not trust algorithmically-driven services like Netflix and resists binge-watching practices, she still notices that the SVOD service has become more valuable than television, "Who would be watching normal television if you've got Netflix? Even I don't." Indeed, Netflix can be transformative for individuals by providing more varied content choices that may greatly supplement or even replace their TV viewing.

The arrival of Netflix was transformative for some participants as it created new thoughts, feelings and behaviours. Most notably, a number of participants I interviewed described a profound shift in terms of how they thought about, talked about and accessed televisual content because of Netflix. For example, even though Chiara (28) would sometimes engage in internet piracy, it was

Netflix that created new expectations and beliefs regarding how entertainment should be accessed:

> I think Netflix has totally changed the way we think about accessing content. And I think anyone who has Netflix will really struggle to go back to a commercial TV model. And I think we're realising that it's worth paying for good content...there'll always be people that will download...but personally I find it, I think the [Netflix] model works.

Chiara's reflection suggests that Netflix is a feasible alternative to downloading, and can transform the viewing experience for commercial TV viewers in particular. Despite her experience with piracy, Netflix had a significant impact on how she felt about accessing content, which suggests new beliefs are being established.

Participants never spoke about Netflix as television, but they always compared it to television. Most notably, Netflix is more likely to release international titles available within a day of their release, mitigating the 'Australian TV Delay' (Spencer, 2015). Hannah (25) explains:

> We can now get shows that are new in the US at the same time, and they'll quite often make that a point of advertisement on Netflix. They'll be like same time as the US like when it's a new show, which I think is so important since Australia has had such a history of being behind culturally with pop culture and things like that. I think it's really great that we can be up to speed with things like Netflix. I think it's made a huge difference in that area, which is really good.

Hannah also engaged in internet piracy; however she expresses that since Netflix there is no longer a sense of being 'left behind'—evidence of shifting thoughts and feelings—as international content became more readily and legitimately accessible. Because more than two-thirds of the Australian population were not engaging in internet piracy, this kind of access Netflix provided was new for a lot of people (Screen Australia, 2017; 2018a; Quinn, 2017). The arrival of Netflix relieved issues such as needing to avoid spoilers and not being able to enter discussions around popular shows from overseas during their release period (Spencer, 2014). This seems to be important and is tied up with notions of where Australia fits in the world in terms of being culturally inferior. For those who were regularly pirating, they had already experienced this novel

change. However, Hannah's reflection highlights that Netflix was transformative for Australians who have never engaged in internet piracy.

5.2.3   *Popularity & Significance*

All participants had the perception that Netflix is extremely popular in Australia. Aris, age 33, affirms "I don't know many people who don't have Netflix" and Indigo (30) reflects "Even if they don't watch it or they haven't got it they know what [Netflix] is." This leads to the assumption that almost everyone is a Netflix user. Chiara (28) expresses "it's kind of assumed, not just that the person you're talking to has Netflix, but that they have access to it...they might not be a paying subscriber, but you talk to them as if they can access it in some way." Chiara is not even a subscriber herself, she explains "...like any self-respecting adult, I mooch off my mother's Netflix." In fact, many of the other interviewees did not pay for Netflix either; it was shared among friends and family.

Netflix holds a monopoly in the Australian SVOD market based on recent statistics (Roy Morgan, 2021; Screen Australia, 2018a). Netflix's prevalence in Australia is certainly felt at the ground level; Chiara (28) describes a sense of community with the SVOD service:

> I do think one nice thing about Netflix is the fact that we are all going to the same place...I think that has to be the strength of the platform, is that we're all able to say to each other; hey, you should check this out, it's on Netflix…

Chiara feels as though people are all "going to the same place." This echoes that sense of "co-presence and simultaneity" that was central to the experience of television in Australia, when everyone was watching the same two or three channels because that is all that was available (Bennett et. al., 2020, p. 84). However, Chiara recognises how this experience is distinct from television:

> [Netflix] definitely changed the way that I talk about TV...when I was a kid I'd be like; oh did you watch last night's Greys Anatomy episode, for example. Whereas now...people are always talking about the latest thing they've watched in their own time, and then giving recommendations in our friendship circle, or it happens a lot at the family dinner table as well...

Participants would often distinguish between television and streaming services, suggesting that they produce different viewing experiences. For example, FTA includes ad-breaks that participants found intrusive and streaming is more personalised, which is explored in the followed section. However, when Chiara says that Netflix "changed the way I talk about TV", it suggests that television and Netflix do overlap. Netflix is not TV, but it still hosts TV shows, so we see people adopting this dialogue of 'TV' even when talking about their experience with streaming services. The expanding televisual landscape has caused participants' practices to shift from exclusively appointment viewing—a characteristic of television—to include more on-demand viewing. Chiara's reflection suggests that with Netflix, even though other people might not be watching the same thing you are at the same time you are, the sense of community stems from being able to access the same library of content. This is an example of stabilisation because even though Chiara—and other Australians—are accessing content in a new way, it is consistent with the belief that televisual content is a collective experience. This insight interjects Turner's (2019a) position that the customisation afforded by streaming services is disrupting the "longstanding connection between the television audience and the national community" (p. 227).

Despite being regular Netflix users, many participants had no real loyalty to the service. This was true for both participants that had engaged in internet piracy and those who had not. Chiara (28) explains why Netflix itself is not particularly significant, but televisual content is:

> I feel like the platform itself hasn't influenced, or really changed the reasons, or the affects of wanting to watch TV. So I feel like it's fulfilling a need that I, if Netflix didn't exist tomorrow I would find a way to do the same things that I'm doing...There are times where I just don't want to go outside...I think I would always need something in that space...I feel like we have this human desire for story, and for meaning...this is a problem that all humans share, and we all experience feelings of wanting to relax, and I feel like TV watching is a constant throughout my life, and that's a place I go for relaxation, and I can't see that changing...what I do see is a lot more interesting, exciting TV shows being made by people that I sort of admire… [and] seeing more kinds of people on TV...I go to movies, and I go to plays, and I read books, and then I still, there's something to be said for sitting down and watching an ensemble of actors going through some ongoing series of events.

Again, we see Chiara using the term 'TV' as shorthand not for broadcast television but for television shows. Chiara's desire to watch TV shows and films is deep and multifaceted. Early literature around television revealed relaxation, entertainment, habit, time occupation, escapism, sociality, information attainment, sexual arousal and the sense of company as motives for watching television (Lull, 1980; Rubin, 1983). What Chiara describes goes beyond this. She believes that experiencing stories in this way fulfils an essential need and is profoundly meaningful in her life. Netflix, however, is merely a convenient vehicle for this. It certainly has opened up Chiara's expectations of seeing greater diversity in terms of genres, characters and stories. But she suggests Netflix is expendable. I believe this is due to more options becoming available, because other participants felt the same way. Lee, age 50, insists that without Netflix, "I'd seek another source" and Fox (40) affirms "I don't feel loyalty to any kind of platform as such." Participants described a continual adaptation to the increasing landscape of options for televisual content. Indigo (30) notes "I've really opted in and out of Netflix a lot" based on the appeal of its catalogue. He elaborates:

> I keep not finding [content I want to watch] on Netflix. I'm starting again to feel more justified in thinking about pirating again. Because I now feel like I'm not being catered to in any way.

For Indigo, Netflix does not consistently offer the content he wants. Evidently, no one service can please everyone, and explains why Australians tend to use multiple SVOD services (Roy Morgan, 2020; 2021; Kalogeropoulos, 2017; Screen Australia, 2017; 2018a). In contrast to Indigo, Fox is satisfied with the content Netflix offers:

> I just love stories. And I think [Netflix], their stories as well very often, like, I guess thinking particularly about their originals and acquisitions, they're usually quite, you know, antithesis to the commercial TV world, that's just so dull and boring.

Fox explicitly distinguishes between Netflix and 'the commercial TV world' in his reflection, suggesting they provide completely different experiences. I previously said that piracy was the 'middle-man' between television and Netflix. Perhaps Netflix will prove to be the middle-man between piracy and this ever-growing televisual world where people can access multiple on-demand content catalogues. In fact, this reality looks more like piracy; anything we want to watch is at our fingertips. The main difference is having to pay, but even subscribing to multiple services

is cheaper than pay-TV, and my participants note that they share these services anyway, making it even more affordable.

The non-loyalty to Netflix suggests that the streaming service has been stabilising among the participants I interviewed. For the most part, it did not represent a radical change; it met their expectations and reinforced what they were already doing. However, this does not mean Netflix has not been a formative actor in the evolution of our viewing experiences. This is illustrated by the usage of 'Netflix' as an epithet for streaming in general. Emily, age 42, observes:

> People don't say...what have you been watching on iView, or SBS On Demand. They always say; what have you been watching on Netflix [which means] what are you currently watching, is there anything good?...People don't say; what have you been watching on Stan.

Most participants felt that Netflix is not that important to them. However, it is significant to some degree, because the term 'Netflix' has been injected into our cultural imagination. Perhaps because it was one of the first of its kind. Hannah asserts "If the question was no streaming services, then yes, that would affect my life…"

5.3 Agency

Television schedules content for viewers and Netflix does not schedule content at all. This produces two very different viewing experiences. Prior to streaming services, television structured participants' everyday life as particular programs throughout the day triggered specific feelings, habits and practices. This is referred to as linear television scheduling (Lull, 2014). Scheduling is a communicative cultural force and a tool used by media industries to "lock down audiences through patterns, repetition, and marketing" and create a flow of content (Burroughs, 2018, p. 9). Raymond Williams' (1990) concept of 'flow' refers to the experience of broadcast television as a continuous sequence, characterised by its scheduled movement of units such as programs and advertisements. Inevitably, Dean (24) observes that his experience with television growing up was "like a routine." Emily (42) describes what this routine looked like for her:

> [Television] almost structured your day, yes, perfectly...when Playschool came on, that meant the kids were at school, and it was only the little kids that were left at home...that was nine o'clock. So if you were seeing Playschool

> you were late for school, you know...when Dr Who came on, that was dinner time, so we'd go to the table...that was six o'clock...if you're home sick for the day, then you would have your lunch while watching Days of our Lives.

Television programs have temporal significance. Like Emily, many participants perceived different programs on television as signals for what should be happening at that time. In particular, because TV viewing is punctuated with ad-breaks, the ads are cues as well. Growing up with television, many participants felt that ad-breaks were regulatory. Emily explains "We had rules...our bedtime was eight thirty, so in the ad breaks we had to brush our teeth, and then the next ad break we had to put our pyjamas on." Bianca's (40) experience emphasises how television was a reward interwoven with daily commitments:

> We were only allowed, before school, to watch cartoons after we'd finished all of our things...There was no sitting down for long periods of time, but we did get to watch cartoons for 15 minutes or so before we left. In the afternoons, when we got home, I would probably like to watch television but...there weren't even any shows on. Plus we had to do homework. So, there was structure around that.

The most notable characteristic of television is that it formats our time and dictates what we should be doing throughout the day through advertising and program scheduling. Netflix does update its catalogue so that the content changes, but it does not organise your time for you like television does. This is because Netflix is a transnational, on-demand service that does not abide by national norms of time such as school and work hours, holiday periods, meal times and common bedtimes (Jenner, 2018; Lull, 2014). Emily recognises how powerful television was for regulating behaviour in her childhood home "there were just no arguments."

5.3.1   Ad-breaks

Participants' reflections suggested that over time, their perception of ad-breaks shifted from an interruption that prompted them to go and do something, to an intrusion. Emily explains that ad-breaks on television were simply "the time not to pay attention." Common practices during ad-breaks among participants involved muting, bathroom breaks, quick chores, retrieving a snack or drink and engaging in conversation. An ethnographic study by Lull (1979) found that viewers who left the room during a program instead of the ad-break were typically briefed upon their return, but not until the next ad-break. As a result, Lull observed that "the rule of non-interruption

is implicit in the viewing experience" (p. 28). This demonstrates that uninterrupted viewing experiences have always been valued and negotiated even in the presence of ad-breaks.

The idea that ad-breaks are an unwanted interruption is evident among both participants and scholars. For example, Jacobs (2011) refers to ad-breaks as 'pollution' interrupting otherwise 'pure' televisual texts because commericals fracture the aesethetic coherence and flow of the television program. For participants, once they began consuming entertainment in the home without ad-breaks, their annoyance became greater, until eventually ads were so intensely despised that they must be avoided at all costs.[85] Indeed, most participants expressed contempt for ad-breaks. Jess (24) simply notes "I hate ads" and Emily (42) declares "I find ads repulsive, and I can't handle them at all." Chiara (28) described ads as thieves of time:

> The feeling of like your time being wasted by watching something that is not what you want to kind of be thinking about...I just don't have the patience for that anymore...The second that Netflix started having ads would be the time that I would just stop using it.

The more participants consumed televisual content in other ways, the more ad-breaks seemed to be destabilising. For example, Chiara's strong distaste and impatience for ad-breaks developed from her history with internet piracy, "using downloads regularly to entertain myself...I just couldn't go back to [ads]." For Emily, her intolerance of ad-breaks "comes from a long history of watching TV series on VHS, and on DVD." Gus recounted an experience where he had not watched FTA in over a year:

> I lived somewhere with no TV and I just watched things that I downloaded...I remember after a long time having not watched Free-to-Air or television...the first ad break I was like oh, what? Like it kind of really shocked me.

By using these other methods to watch TV shows and movies, participants' viewing experiences were transformed because they were no longer experiencing intermittent breaks out of their control. This created new expectations around how content should be delivered. Uninterrupted content delivery became standard for many participants; Matt (25) reflects:

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[85] The removal of ad-breaks has led to more indirect embedded marketing tactics such as product placement (Sutton, 2019).

> A few months ago someone was like Netflix is ad free. And I'm like ah, it is too...I was like oh, it is...Because obviously with the downloads and stuff...It's just such a common thing of it not being ads that it wasn't front of mind.

Participants' experience with ad-breaks was then destabilising because it was inconsistent with this established belief, which is that there should be no unwanted interruptions to their viewing. Hannah (25) believes that ad-breaks interfere with narrative immersion "I try to avoid ads at all costs...It's an interruption...it breaks up the continuity of the show." Chiara feels that ad-breaks inhibit their ability to relax, "[Recently] I tried to watch free to air TV, and just could not handle it, there were so many ads, it was so uncomfortable...I just want to watch something and relax." This feeling of not being able to relax might also be because in the past, ad-breaks were used to regulate behaviour and reinforce house rules. Emily has a strong emotional reaction to ad-breaks now; when her children were recently watching FTA television she recounted "The ads...It was giving me anxiety. And we were constantly saying; turn that off, turn that down..."

The experience with catch up streaming services is no different, according to Emily (42), "Watching MasterChef on TenPlay, we were all getting so cranky when the ads would come on...We mute them, and we look away, and we go and do something." Many participants' expectations were transformed prior to Netflix, as they began to abandon FTA in favour of internet streaming, piracy or DVDs. The arrival of Netflix was thus stabilising for many participants because it continued and reinforced existing expectations and catered to their preferred viewing practices, specifically binge-watching. Gus (25) notes, "The best feature is just that it doesn't have ads. And just that it's kind of an uninterrupted experience."

5.3.2 Control Functions

Participants liked having as much control around their viewing as possible. For older participants, the introduction of the remote control was exciting and memorable because control functions became more convenient. Lee (50) reflects:

> I remember my first TV was black and white and we only had two channels...we didn't have a remote control we had to change it by hand. And then I remember when my grandmother got, she had a really big telly and that's the first time I had ever saw a remote, I thought that was fantastic.

Indeed, the remote control was an important development when considering the evolution of agency around television viewing. Control functions on Netflix—being able to browse, play, pause, skip and so on—are evolutionary kin to the functions of a remote control. Younger participants spoke in greater detail about how these functions shape their viewing experience. Chiara (28) reflects:

> When you used to download stuff you had to make sure you downloaded all the right episodes, and you had to have them in order, and you had to know what you were clicking on. Whereas with Netflix, if you're watching, we were watching, for example, The Good Place, which is a series, there's two seasons of it, so you can start watching Season 1, watch however many you want to watch that night, and stop it, turn it off, come back the next day and you can then play right through.

The Netflix feature Chiara is referring to is called 'continue watching' and it was stabilising for participants. The continue watching function operates in the same way VHS and DVDs did, whereby the video you were watching would resume from whatever point you stopped or paused it. Chiara explains that jumping back into a TV show is possible with piracy, however it is nowhere near as convenient. Indeed, the ability to keep track of your viewing is not a new phenomenon, but the way it was experienced though Netflix was. Participants could easily adapt to the continue watching feature on the streaming service because they made sense of it from previous technologies, and it was serving them in a way that was familiar. The continue watching function upgraded their viewing experience but it was not a transformative change.

The 'autoplay next episode' feature is stabilising for most participants. The autoplay feature is when TV shows automatically roll on to the next episode after a 10 second countdown as the ending credits begin. Chiara (28) observes how the feature leads her to watch more than intended:

> I feel like the autoplay feature is one feature that I know affects my behaviour…it does make me sit there for a little bit longer...Because we've started watching one show, and then it'll auto play the next one, we'll watch three before stopping and having a shower, and going to bed...I feel like we stay up that little bit later, because there'll be an episode where you're like; no, what happened, who did it? So I feel like my time watching overall must be longer...Like you could watch the final episode of season 1, and it'll bring

up the first episode of season 2, and you can either stop or keep going. The hope is to stop, I think... But it doesn't always happen…

The autoplay next episode feature is a good example of how Netflix is a 'scripted space'. Scripted spaces are meticulously calibrated environments that drive people toward a specific action (Chamberlain, 2011, pp. 239–240). Scripted spaces are designed to "entice and enthrall" their visitors, all the while hiding their complex design and emphasising the experience of the visitor (Chamberlain, 2011, p. 240). Chiara's reflection suggests some nuance concerning users' agency with Netflix, because the SVOD service has features that create susceptibilities in its users even though they feel like they have more control over their viewing. Many participants, like Chiara, felt that the feature plays an important role in their decision to watch more than one episode in a single sitting. Scripted spaces characterise 'persuasive technologies', which are "interactive computing systems designed to change people's attitudes and behaviours" (Fogg, 2003, p. 1). Harris (2016) goes as far to say that persuasive technologies hijack users' psychological vulnerabilities in order to sustain their attention.

Chiara's (28) experience suggests that Netflix is a persuasive technology, or at the very least has features designed to persuade. The autoplay feature, she observes, directly influences and drives her toward a specific behaviour: watching more episodes than intended. Chiara's experience seems to be more stabilising than destabilising, however. There is some dysfunction as she observes she sometimes watches more than intended, leading her to go to bed later than intended. Yet, Chiara did not express any regret, shame or concern about the behaviour, which suggests this practice is consistent with beliefs she has about her viewing. This is particularly apparent when Chiara expressed an existing willingness to watch multiple episodes in a row prior to Netflix with DVDs, suggesting this habit is merely stabilised by the SVOD service, "I think for as long as I've had the ability to watch as much as I kind of want...like getting a DVD and thinking; I've got to watch the next episode."

Netflix provides a brief opportunity for viewers to take conscious action during the 10-second countdown before starting the next episode. However, most participants often let it roll over or click 'play next episode', which demonstrates that this feature is serving them in the way they want or reinforcing desired viewing patterns. Furthermore, the autoplay feature seemed to be well tolerated by participants when they are already immersed in the story. Naomi, age 19, believes the feature exceeds their expectations because it provides a more seamless experience than television "It's very different when you're watching TV shows...It just keeps rolling. So, it's really

good." This also demonstrates that, from the user experience perspective, Netflix is quite different to television.

The experience of a seamless narrative was highly valued among participants. The 'skip intro' and 'skip recap' functions introduced in 2017 on Netflix allow users to skip the opening credits of a show or the recap of the previous episode. Giving users the option to skip recaps can improve the viewing experience, Dean (24) explains "Netflix actually has, like they cut those out if you want, you can skip the recap. It's just like a long stream." Since having the ability to have TV shows roll from one episode to the other on Netflix, Dean observes that recaps are unnecessary "I don't need [the recap], I'm four shows deep." The skip recap feature is stabilising because it sustains the user experience two ways; it gives Netflix users the option to skip, providing greater autonomy, and generates an uninterrupted streaming experience, reinforcing desired viewing behaviours. The skip recap and skip intro features have been well received, particularly among binge-watchers (Bishop, 2017; Campbell, 2017).

Netflix does not always get it right, with the 'autoplay previews' function being highly resisted (Alexander, 2020). In 2017, Netflix introduced a feature whereby trailers or snippets would automatically play as you scroll or hover over any titles on the platform. This feature was implemented so that users could preview content before committing to it. However, autoplay previews were destabilising for participants as they strongly felt their sense of agency was undermined and displaced. Hannah (25) explains:

> They haven't always had it, but when you're on a show, like when you've selected or you're scrolling past a show and it automatically starts playing like the trailer. So if you just want to silently look through stuff...It's really disruptive, and I think obviously, it would take up data...And it makes it a bit slower because obviously, it's trying to load stuff...I think that's a really stupid feature...it just causes me to scroll through quicker, which means I'm not stopping and looking at the shows. Because I'm like it's going to start playing the trailer...it's the same with when you go into a show and you're on the little menu of the show, you can choose episodes and things like that and it starts playing the show straight away, which like stresses me out because if it starts playing a couple of seconds, it'll then add it to my Continue Watching.

In the quotation above, Hannah expresses how the feature—because it is automatic—creates pressure and challenges her desired browsing habits. Bianca (40) also highlights the discomfort she experiences with the feature:

> The music distracts me. And then it stops and it does this little loop. And my concentration span isn't good...So then it annoys me. So then I click out of it...It's never made me excited to click on something...I would scroll away to stop the noise.

Autoplay previews created a dysfunctional viewing experience because participants could no longer browse the content catalogue at their own pace without being interrupted. Participants resisted the feature because it completely undid this expectation. Like Hannah and Bianca, Chiara adjusted her habits, "I'll scroll, I'll just scroll past it", in order to avoid the automatic previews. This echoes participants' experiences with ad-breaks on television, whereby they would work to avoid them by muting, looking away, or changing the channel. Indeed, one reddit user felt the experience was akin to advertising:

> This absolutely destroys the user experience. Its like a never ending stream of pop up ads. You can't read a description...You can't discuss what you want to watch...Netflix willfully makes the user experience worse, with no option to turn it off.

Netflix has many features that assure the user they are in control, so anything that interferes with that control evokes a fierce reaction because it is inconsistent with this belief. One reddit user believes the feature made the experience less personalised and more commercialised "The worse part is Netflix [user interface] used to be much more intuitive and functional. After the change, I feel like I'm trying to be sold on content more than being genuinely shown content I will enjoy."[86] Indeed, participants' distaste for the feature is similar to their contempt for ad-breaks; they now expect to be in control of what they are consuming. Like participants, many reddit users claim to have altered their browsing habits as a result. One reddit user expressed "...I just never slow down enough for them to load." It was not until February 2020 after considerable backlash, that Netflix

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[86] In *A Dictionary of Computer Science*, UI is an acronym for user interface (Butterfield et. al., 2016).

created a setting that gave users the option to disable the feature, whereby users could reclaim their agency (Netflix, 2020).

5.3.3   Personalisation

Participants described gradual shifts in their viewing from primarily communal with television, to independent with DVDs, internet streaming and piracy, to personalised with algorithmically-driven services like Netflix. In the past, Matt (25) recalls "It was a family affair of watching television" and Bianca (40) reflects, "Family time was often television time. Watching a movie or MacGyver. A Team. It was family bonding time sitting there." The expense of televisions was perhaps the reason why families gathered together; many participants recounted only having one TV in the home growing up. Once there were multiple televisions in the home, participants began to have more independent viewing experiences. Indigo (30) reflects, "I started to realise that I had different tastes from my parents...when I was maybe about 15 or so. I started reaching a point where I was interested in taking a bit more control over what I watched."

For many participants, there was a desire for independent viewing as they got older, coinciding with the acquisition of a television for their room. This period was a real turning point for participants in terms of feeling more in control of their viewing. Many participants described periods of viewing in a communal space, often during meal times, before individuals peel off into their own rooms to consume preferential content independently. Dean (24) explains, "We would eat dinner in front of the television, as a family...and then usually we all had TVs in our rooms, so after that we'd go back to our rooms and watch stuff that interested us more." Indeed, there was an organic shift from communal television watching to independent television watching. Independent viewing was then exacerbated by internet piracy, for reasons that I explored earlier in this chapter: access and autonomy. For participants, independent viewing experiences are compelling because they offer a greater sense of agency; you get to watch what you want.

The use of personal devices such as laptops, tablets and smartphones is one way participants experienced stabilisation because it reinforced independent viewing practices. The laptop was often the preferred viewing device among participants.[87] Matt (25) observed that their laptop has become their primary mode of consumption since the rise of internet streaming and piracy "I don't

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[87] A 2017 study from Switch Media revealed that Australians prefer to consume SVOD services through personal devices such as a laptop or desktop (39 per cent), iPad (34 per cent), iPhone (30 per cent), with the Smart TV being the least common (28 per cent) (cited in Zaharov-Reutt, 2018).

have a television at home...I watch everything on my laptop, almost never watch anything with anyone, not even Jasmine, my girlfriend." Emily (42) explains that her laptop made her viewing experience feel more intimate "I like watching on my laptop, because I can have it close to me and it feels like my show. Whereas when it's on the big TV in the lounge room...I feel a bit exposed…" Indeed, internet streaming has enabled audiences to imagine personal devices as television screens, which has challenged "the long acculturated sense that television content should be viewed on a television set" (Lotz, 2014, p. 71).

A 2018 study from Switch Media revealed that the television is the least preferred device for accessing SVOD services among Australians (cited in Zaharov-Reutt, 2018). In the past, viewing primarily occurred around the television in a common space, but in 2020 one of the largest television manufacturers, Panasonic, withdrew from the Australian market due to a lack of demand (Black, 2020). Matt's (25) experience might help explain this trend:

> Now we don't watch television as a family. I think it's so much harder to get people around a television now, because everyone has all different preferences...everyone can watch their own show, why not?...we go off and we watch our own thing and we get into the depths of our genre. And then when we come back it's like no, I'm so far from what you like. So it's hard to come to a compromise sometimes. It's also hard to keep in track with people on like the sequences of stuff...People are just at different time frames. So it's hard to coordinate the watching of anything.

Even though participants preferred to consume televisual content independently, there was still a sense that they valued aspects of communal TV watching. Netflix actually reinforces this value with the ability to have multiple profiles on a single subscription. This is a sustaining experience, as Matt observes that their viewing is "Still within the family unit...still like watching Netflix but just consuming different things" even if they do not physically watch together or even live together anymore. Interestingly, a number of participants noted independent consumption will often occur in communal spaces, Dean (24) reflects "now we're all on streaming sites, we all have our own devices, so instead of separating and watching TV in our rooms, we're generally watching on an iPad with Netflix, or Foxtel in a common space." Indeed, despite the shift to more independent viewing practices and being able to stream anywhere, with personal devices being the most common portals for watching televisual content, many people still access SVOD services

in a common space in the home (Switch Media, 2017; Zaharov-Reutt, 2018).[88] This is also an example of how participants' practices shape the purpose of personal devices.

Netflix is a stabilising force for participants because it caters to the diverse interests, preferences, moods and circumstances by giving them more flexibility and control of their viewing experience. Chiara (28) reflects:

> When you were a kid this sense of what you watched being kind of external, or not controlled by you. Even though you could obviously choose not to watch things, you can change channels, there were sort of like seven channels...and then only one of them would have a show, maybe targeted at your age group. Whereas now there's this ability to go on there and be; okay, I'm babysitting a 12 year old, let me find those things that are specifically for that person…

Netflix changed the relationship between content providers and viewers, another argument as to why Netflix is not the same as television from the user experience perspective (Jenner, 2018). Previously, as Chiara points out, content selection was not controlled by the viewer. Television was tailored insofar as particular channels dictated specific programs and time slots targeted specific demographics (Fogg, 2003). In contrast, Netflix allows users to create profiles for different people. Netflix also has 'Netflix Kids', which is a ready-made profile that displays a carefully curated selection of the content library, all of which have an appropriate maturity rating for children (Netflix Help Center, 2021b). Within each profile on the platform, Netflix tracks viewing habits in order to cater to audience interests, perpetually learning and evolving as it obtains new layers of use. Netflix uses data-intensive techniques to capitalise on users' viewing activities and maximise their time spent on the service. This has been regarded as the company's main transformative potential, it produces attention value by serving an experience characterised by plentitude and personalisation (McDonald & Smith-Rowsey, 2016; Barker & Wiatrowski, 2017; Jenner, 2018; Tryon, 2015; Chamberlain, 2011; Pilipets, 2019; Lobato, 2019).

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[88] According to a survey by Switch Media in 2017, Australians are consuming SVOD content at home, the most popular place being the living room (86 per cent of respondents), followed by the bedroom (57 per cent of respondents) (Switch Media, 2018).

However, many participants did not feel like their experience with Netflix was particularly novel. Their experiences were stabilising because Netflix was simply serving up what participants were seeking through internet streaming, piracy and DVD usage. Participants were already creating tailored viewing experiences for themselves with hard drives full of TV shows and movies. Netflix just took on the labour of selecting and storing titles—for a monthly flat rate—and streamlined the operation.[89]

Many participants felt that Netflix improved their viewing experience because it was more personalised than television. The 'My List' feature, for example, allows users to curate a list of titles they like that can be easily accessed. Customised content discovery was also valued among participants. Bianca (40) was the only participant who experienced destabilisation, because she believed services that monitor her data are using her, not the other way around "I hate all of that. And, again, for no reason other than that it irks me that they are using us." This aspect of Netflix undermines Bianca's sense of agency. In contrast, many participants praised Netflix's algorithmically-driven design. Gus (25) affirms "I want a service that's tailored to me", and Naomi (19) expresses "Give me algorithms." All participants were aware that Netflix extracted data from their browsing, playing and scrolling behaviour. Matt (25) observes:

> [Netflix] will improve my own experience. So they'll use my data of what I've seen, how much I've watched, what types of shows, what genres, how long, and they'll provide me with more options. So, pretty much, by using it, I'm just making it better for myself.

Matt experiences stabilisation because Netflix is serving him in the way he wants. From Matt's perspective, Netflix is collecting data in order to display content that he is likely to be interested in. This process serves Netflix as well. The more often users see what they want and click a title Netflix suggests—especially one that is not available on any other service—the more likely users will keep their subscription. Netflix allows users to believe they are 'in on it' and part of this system (Chamberlain, 2011; Mans, 2017). However, partnerships with content providers as well as Netflix's own content production factor into what users see (Markham et. al., 2019). Some scholars argue that scripted spaces like Netflix create an illusion of agency through the abundance

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[89] Unlike internet piracy, Netflix cannot provide every title imaginable due to rights issues and financial constraints. However, Netflix does have an extensive library with around five thousand titles in the Australian catalogue (Cook, 2021).

of choice and appeal of personalisation (Markham et. al., 2019; Mans, 2017; Chamberlain, 2011). However, most participants I interviewed were very much aware that they are involved in a circuit of exchange on Netflix, in which their interactions as well as Netflix's intentions underwrite feedback loops. For example, when scrolling through her Netflix homepage, Emily (42) explained that it is formatted in a way that promotes their own shows, which are stamped with the branding 'Netflix Originals'. She observes, "These are all ads for their shows."

For some participants, Netflix's effort to engage users in content discovery was transformative. Chiara (28) reflects:

> Like I've just been watching some great crime series, for example, and [Netflix] recommended a good French crime series that I never would have found, never would have watched, never would have downloaded, but really enjoyed, right...I feel like that's a fair price to pay for no ads.

Despite being able to consume foreign content on the national public television network SBS, Chiara is drawn to Netflix because there are no ad-breaks and the recommendations are based on her viewing history.[90] The experience was novel for Chiara because she believes, without Netflix, she never would have discovered or watched that particular crime series had the platform not suggested it to her. Brian Lenz, director of products for Australia's most recent SVOD service, Binge, explains how algorithms can be ineffective, "just because you watched a Korean TV show doesn't mean you want to watch all Korean TV shows" (cited in Donoughue, 2020, para. 14). Binge moves away from the reliance of algorithms, although millennials—and most of my participants—tend to be comfortable and appreciative of the cultivation of taste profiles on Netflix (Barker & Wiatrowski, 2017; Binge, 2020). Indeed, Netflix is a scripted space and black boxed; users can never be certain exactly how each interaction influences the complex operations occurring beneath the surface—which ultimately control what they see—because Netflix makes these processes invisible to them (Chamberlain, 2011; Mans, 2017).[91] Nevertheless, Netflix

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[90] In 2006, SBS began implementing ad-breaks throughout its programs, however, they are much shorter than other television channels (Murray, 2006).

[91] The concept of the black box is useful when referring to ideas, objects or technologies that are widely accepted and rarely contested. For example, not knowing the internal mechanisms of Netflix does not detract from the user experience. Netflix users do not need to know anything beyond its what goes in (their activity) and what comes out (its recommendations).

allows its users to interact with the service in a way that television does not, delivering a tailored experience that television cannot (Fogg, 2003).

Independent and personalised viewing through SVOD services has not totally replaced communal television viewing, but they have become the dominant modes of consumption for most of the participants I interviewed. While internet piracy played a transformative role, Netflix propelled and stabilised this shift. Kath, age 54, described the change in their family dynamic since the arrival of Netflix, "I remember when we first got [Netflix]...everyone started, got their password and they would go off into their room and would watch their Netflix." Kath's use of the phrase 'their Netflix' alludes to the ability to have individual profiles on the SVOD services, and highlights Netflix as a catalyzing agent that drove more personalised viewing experiences.

5.3.4   *The Paradox of Choice*

Having too many options to choose from creates what Psychologist Barry Schwartz (2004) calls 'the paradox of choice' or John Ellis' (2000) notion of 'choice fatigue'. Instead of feeling liberated and satisfied, people become paralysed and bewildered in the pursuit of the perfect choice. Television decides what you watch. With Netflix, the user decides, and because the SVOD service has such an extensive library—around five thousand titles on the Australian service—participants experienced the paradox of choice. The paradox of choice that Netflix users experience has been discussed in the media (Stark, 2019; Donoughue, 2020). However, there is limited insight in academia. My findings in this section can prompt future investigations of how Netflix users experience the paradox of choice.

Participants frequently selected content based on what is available, personal taste, mood, time of day, but also what is recommended to them. Because individual tastes vary significantly, Netflix strives to maintain a large and diverse catalogue of content, in order to display content people want and results they are looking for (Curtin et al., 2014). Alvino and Basilico (2015) note that this becomes an algorithmic challenge, as the entire catalogue cannot be displayed on a single webpage.[92] Netflix utilises the data of its users to understand their interests and intents and create a tailored homepage that leads to intuitive decision-making but also leaves room for exploration.[93]

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[92] The Netflix homepage organises content thematically in rows to make it easy for users to navigate the extensive catalogue (Alvino & Basilico, 2015).

[93] Netflix employs editorial analysts whose job it is to accurately classify content, so that texts can be categorised and easier for users to locate. The position involves watching, researching, rating, tagging,

However, my participants felt there was an overwhelming amount of content on the service. With convenient access to so much content, people are set up for unrealistic expectations and overthinking their decisions, causing decision paralysis (Schwartz, 2004; Stark, 2019; Paulas, 2015; Cantante, 2018). Indigo (30) reflects:

> [There is] a sort of pressure that I feel now with streaming services. And to some extent this was something that developed before then...During the time of Torrenting, as well. But, there was this growing pressure in my head, I guess. The problem started, not being, I have nothing to watch or whatever. But it was, making a satisfactory decision about what I want to watch right now… So, TV used to bear a lot of the burden of figuring out for the masses, here are things you probably want to watch at this time of day. And that was hit or miss. But you never had to think about it. Whereas, now, even if you're watching a show that you think you'll probably enjoy. It's really easy to be watching it and be thinking, is this the absolute most enjoyable thing I could be watching right now? And, of course, this isn't limited to TV streaming or movie streaming either. It's really the burden of the moment; I feel it with games, as well...it makes it hard to enjoy things for just what they are...if you're in control of everything, first of all the burden's on you...If you're watching something that the person next to you doesn't like. It's your fault...I think the nature of having that control is, I think, at worst, what you're watching will be disappointing…

Indigo explains that as our entertainment options grow, so too does the internal conflict and pressure to choose what to spend your attention on. Indeed, consumer psychologist Adrian Camilleri believes that viewers want to avoid the feeling of regret, which can come from investing in a television series that ends up being unsatisfying (cited in Donoughue, 2020). Indigo feels that having to choose is a kind of responsibility and "burden of the moment" as he has the same experience with other forms of entertainment.

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annotating and writing analysis for films and TV shows. This is one of the ways Netflix invests in addressing the paradox of choice (Rense, 2018).

Some participants noted they would experience decision paralysis in the rental store or with piracy, but nowhere to the degree they have with Netflix. Hannah (25) refers to her experience renting DVDs:

> I would spend a long time [at the video store]. I think because it's more of a physical experience...I'm never going to leave empty-handed...Because I've gone to the effort of going there.

The experience at a rental store anchors viewers' decision-making through the available titles, cost, and trading hours, perhaps helping them choose something. Indeed, Hannah notes in the quotation above that she would never leave empty handed because the process requires more effort and there are boundaries around her decision-making. Chiara (28) also points out that because being at a rental store was a more active experience "...you were walking around a store" and therefore she is more determined to leave with something, in contrast to "when you're sitting on a lounge, you're scrolling, scrolling, it just seems like an endless, mindless activity…" Drawing on Hannah's experience, perhaps the paradox of choice was not as intense with piracy because people would commit to a show before downloading it. Once you have gone through the labour of locating and downloading an entire TV show, you are probably more likely to watch it. This is in contrast to Netflix, in which it is much easier to dip in and out of things.

The paradox of choice is a destabilising aspect of Netflix for participants. Participants simultaneously like and dislike that Netflix had an extensive library of content. This psychological tension illustrates how people can experience a sustaining and dysfunctional experience at the same time.[94] Hannah (25) summarises the contradictory experience:

> I think it's positive in the way that you have lots of options...It's negative in the way that there are too many options...You can waste so much time looking for something, making a choice...Sometimes it can be quick, but on those times when I think I'm wasting my life trying to scroll through something, It might only be about 15, 20 minutes...I think that's way too long to be able to pick something to watch.

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[94] Indeed, participants do not move through stabilisation, destabilisation and transformation as linear phases. These concepts are just useful to draw out and demarcate different aspects of the user experience.

Netflix causes dysfunction as the decision power is displaced; shifting from the content provider to the viewer. The simultaneous flexibility and tension can be reviewed by Fox's (40) observation "You're like the fat kid in the candy store", and Bianca's (40) assertion "It annoys me that I spend more time scrolling than what I almost spend watching. I can't decide. Too many options…" Hannah explains that using Netflix can cause them to feel "braindead", observing that persistent scrolling feels like "an endless, mindless activity", demonstrating why it is perceived as a burden.

For some participants, seeking new content to watch is so cumbersome that it is nervously anticipated as they near the end of a show. Jess (24) observes that she becomes anxious "when I finish something and I don't have something lined up to watch next." Participants frequently felt overwhelmed by this aspect of Netflix, diluting the pleasure of their experience. Emily (42) explains:

> My friend said that he's giving up Netflix because he couldn't decide what to watch...Every time they logged on, they'd go through it and they couldn't figure out what to watch...So he just turned it off and watched the TV...It's like the TV chooses for you…too much choice is overwhelming.

Reverting back to watching television because you cannot find anything to watch on Netflix is an example of how people respond to decision paralysis. Emily's friend preferred to rely on television to choose something for them. This challenges assumptions made about the death of broadcast television (Katz, 2009; Evans, 2014).[95] Indeed, Bennett et. al. (2020) observe, "broadcast television is turning out to be more resilient than some expected" (p. 85). Responses from older participants I interviewed provide further insight; they check what is on television before using Netflix. Bianca (40) explains, "I always go TV first...Because I'm old fashioned. Netflix, you can access anytime. Television, it'll go away if you don't see it. Fear of missing out, I think." I thought that this practice was purely out of habit, however, Bianca's feelings regarding the 'fear of missing out' suggests that people who do this might also prefer the sense that they are watching something at the same time other people are.[96] This might also explain why the sense of

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[95] Netflix CEO Reed Hastings announced in 2014 that broadcast television would be non-existent by 2030 (cited in Evans, 2014).

[96] It is interesting that Bianca uses a new internet slang phrase—the fear of missing out or 'fomo'—to describe an old behaviour, watching television. This suggests that new behaviours can shift the value and meaning of old media behaviours.

community was valued among Netflix users, remembering Chiara's comment from earlier "I like that we are all going to the same place."

The fear of missing out emphasises the serendipitous nature of television viewing. There is a sense of, you do not know what you are going to get, but it is quite pleasurable when you land on something that hooks you. Indigo (30) reflects:

> I think there are other aspects of TV, just by its design, that are lost in Netflix as well. For example, the idea of catching the last hour or half an hour of a movie. It's an experience you used to have, and, I don't know, I think there's something to that. To catching the end of Jaws or something, over and over again. And just having to think back to what the first half of the movie would be like. There are a lot of movies where I've seen...A part of it. And that's really all I need to see of it. But it was enjoyable to see just that bit of it.

SVOD services completely undo the kind of experience described by Indigo above. Perhaps participants who go to FTA first are attracted by the unknown possibilities. No participants said they consulted a TV guide before flicking through FTA channels; the practice leaves it up to chance and curiosity, where viewers hope to stumble upon a program that draws them in. Some participants, like Indigo, are more inclined to commit to programs on television, even if they have missed the beginning of it. Kath (54) reflects "If I see a movie on free-to-air, I will watch it on that, even though I know [it's on Netflix]." This suggests that titles on streaming services do not have that same hook; when it's on TV, as Bianca notes, "it'll go away if you don't see it." For other participants that commit to finding something to watch on Netflix, the craving for getting 'hooked' is rife. Lee (50) explains, "if it doesn't hook me straight away...I usually don't watch it." Aris (33), observes a kind of fluid dipping in and out of content "I might search for a couple of minutes, put it on, okay this is a bit shit, go to the next one."

Participants described various strategies and practices for mitigating the burden of decision-making. While some might revert to television or abandon looking for something to watch altogether, many participants relied on what Kerr Castle (2019) calls 'comfort TV'. Comfort TV is not a genre but an umbrella term that represents many genres of TV shows, because everyone has different ideas of what comfort TV is. According to Castle, however, there are some qualities that comfort TV shows typically share; they tend to be shows that are familiar, predictable and produce a sense of continuity, which is achieved by consistently returning to particular people,

places or things.[97] Although these ideas exist in the literature around people's experiences with television, the explicit framing of comfort has not been extensively talked about. References to 'comfort TV' became more frequent in 2020 among bloggers and journalists during COVID-19 lockdowns (Martin, 1996; McMillan, 2011; Gilbert, 2020; VanArendonk, 2020).[98] People were required to stay at home more, which meant they were watching more TV shows and perhaps more in need of comfort due to the uncertainty of the pandemic (Gilbert, 2020; VanArendonk, 2020).

Figure 3. Comfort TV Meme

(Ahseeit, 2020)

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[97] Kerr Castle's (2019) doctoral thesis on comfort TV currently provides the most comprehensive understanding of the phenomenon.

[98] Martin (1996) describes comfort TV as the experience of watching something that "soothes and lulls" (p. 21)

One of the ways comfort TV was utilised by my participants—which did not appear in Castle's findings—was as a safety net or insurance measure when they could not find anything else to watch. Naomi (19) reflects:

> Dad and I, it takes us such a long time. The other night, we were looking through Netflix to find a movie. And I was like, what about that? And he's like, no. And I'm like, what about this? And he goes, no. And then we were literally searching for like 45 minutes. And then I said, do you want me to just put The Big Bang Theory back on? And he was like, yes. And I was like, okay.

For Naomi and her father, the *Big Bang Theory* is a kind of comfort TV; it is a show that they have seen before that they enjoy. In this example, the show is relied on, or reverted to, because they could not agree on something else, or something new. The meme shown in Figure 3 indicates this may be common practice.

Naomi's (19) experience also suggests that making collective decisions emphasises the paradox of choice, making it even more difficult and time-consuming. Other participants had similar experiences. Hannah (25) reflects, "when you're with other people because you have differing opinions...so it can take longer...there'll be arguments over what are we going to watch." This struggle to come to a collective decision also speaks to the increasing nature of personalised viewing. Lee explains that "on the evenings that we're all at home, then we have to negotiate," noting there is an evaluation of "who's watching what" among family members, which helps determine what they watch. Dean (24) describes a strategy employed within their friend group, whereby they created a group chat on Facebook Messenger:

> We have a messenger group called, Mushie, which is movies and sushi, and it's pretty much all about discussing when to go get food and watch Netflix...we discuss other stuff, but it's like, it started specifically because, I think I started it because instead of getting to someone's house and spending two hours to argue about what we were going to watch, now we have the whole week to argue over what we're going to watch on the weekend.

The idea behind this group chat was to save time on deciding what to watch on Netflix when arriving at a friend's place. However, Dean explains how the strategy backfired "we argue just as

much as we did before all that...it's probably just extended access to the argument", noting that the decision-making process took "Probably as long as it did before."[99]

Netflix's algorithmically-driven design works to offset the paradox of choice, although participants feel it is far from perfect. Netflix has algorithms that impact users' decision-making process; Jenner (2018) notes that SVOD services "may not schedule in the sense of linear broadcasting, but it strongly urges, or in the terminology of data science, nudges viewers to make certain choices" (p. 119). In 2013, Netflix partnered with Facebook as another way to format recommendations, whereby users can view two rows of content that their friends have selected to watch (Smith, 2013). This avenue taken by Netflix indicates that they believe users highly value recommendations from friends and family.[100] Indeed, the participants I interviewed feel that recommendations from friends and family are more valuable and persuasive. Hannah (25) observes "If somebody tells me that I'd like a certain show, I'm more likely to watch it than if Netflix tells me to." Partnering with Facebook was also another way to collect more data about individual preferences. Suggestions drawn from the social networking infrastructure are then fed back into Netflix's algorithm (Burroughs, 2018; Alvino & Basilico, 2015).[101] However, in 2018, Facebook was at the centre of a privacy scandal and admitted that it allowed third party partners like Netflix and Spotify to access people's private messages (Ghosh, 2018). This led Netflix to no longer allow people to sign up to their service using Facebook (Netflix Help Center, 2021a).

A number of my participants felt that Netflix should have an embedded social aspect rather than linking the service to external social media networks. Dean (24) explains that he would like the ability to follow other people's watch lists or see their recommendations within the Netflix platform, "so you're scrolling through your feed, you've got recently added, trending now, and you've got; oh, Jack recommended this for you, and you go, click…" This again emphasises the motif throughout this chapter that people want and like a communal dimension to their viewing experience. Embedding this kind of social element to Netflix may relieve some of the destabilisation users experience and make the service even more personal at the same time.

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[99] Steiner (2017) found that group binge-watching is less common than solitary bingeing due to logistical constraints around decision-making.

[100] A survey by Deloitte (2018) found that 57 per cent of SVOD subscribers identify friends and family as their most common sources of content discovery, with nearly a quarter of the respondents revealing they neither value nor are confident in the recommendations provided to them by the SVOD service they use (p. 14).

[101] However, in 2018, it was revealed that Facebook had allowed Netflix to access users' private Facebook messages who used the feature (Newton, 2018).

Evidently, the industry has recognised that the paradox of choice is destabilising. Catalogue updates and discovery functions are increasingly invested in by Netflix so that viewers can locate and discover content they enjoy and alleviate the decision paralysis (Deloitte, 2018; Koetsier, 2018; Spangler, 2020). Foxtel's new SVOD service 'Binge' has taken a different approach compared to algorithmically-driven services like Netflix. Binge aims to only host titles that are "binge-worthy, award-worthy, share-worthy or all-time-favourite worthy", with television shows like *Game of Thrones*, *Seinfeld*, *Sex and the City*, *The Office*, *Law and Order* and *Keeping up With the Kardashians* as major drawcards (Binge, 2020). Binge does not rely on algorithms, but promises to 'kill the scroll' with its bingeable titles and a feature called Surprise Me!, in which the service will select a random title for the user that is not based on viewing history or behaviour (Donoughue, 2020; Binge; 2020). This is an interesting hark back to linear television—which Netflix has worked to challenge—by allowing users to reclaim that sense of not knowing what you are going to get. This suggests that FTA television is being revalued, and supports discussions around how streaming services like Netflix have reconceptualised television.

5.3.5 Self-regulation

With Netflix, participants felt as though they had a lot of flexibility around their viewing, but this also meant there was pressure to self-regulate. For some participants, this was not perceived as an issue. Chiara (28) reflects:

> There was definitely this sense that I had to fit my schedule to television, not the other way around...I hear conversations a lot about like; oh, we're spending a lot of time inside, and we're disconnected from each other, and we're on the internet, and all these things, and I just don't really buy into that. I feel like Netflix works in my life in the way that I make it work...I really only allow myself to [watch] if...you know, I'm done work for the day, and it's time for relaxation...I really try to not do it unless there's a sense of; okay, I've done the other things that need to be done, or I've done everything I can for today.

Chiara explains she does not struggle to impose restrictions on herself with Netflix. She integrates Netflix into her daily routine when she wants to unwind and relax. Earlier, Chiara said she sometimes watches more than she intends to, but she seemed to feel this was a neutral experience rather than a damaging one. In contrast, other participants expressed apprehensions about how Netflix influences how much they watch. Matt (25) observes, "Accessibility is just insane. You

can watch it 24/7...you just consume all the time. Which may not be a good thing." Older participants, especially those with children, had a very different attitude to Chiara. Netflix was destabilising because it was so different to how they used television to enforce rules and routines. Emily (42) describes the difficulty of creating structure for her children without linear television:

> I feel like with my kids there isn't that built in routine, which the TV provided for us growing up. Like [with] the TV, 'ah Country Practice is finished', so you have to go to bed. There were just no arguments...I feel like TV sort of at least structured our, helped with our time, like our time management, which is what doesn't happen for our kids now...they've got the other distractions of other devices, like they've either got their iPads, and they can take them off to their rooms and still be watching....I've trialled a few things, like you have to stop watching, and playing, and using screens after seven thirty, and it never happens...

One study that interviewed 21 low-income Mexican-origin mothers of pre-schoolers found that commercial television was helpful for getting children to accomplish household tasks (Thompson et. al., 2015). Among the mothers I spoke to, television is no longer the dominant domestic object that can be relied on for regulatory structure. Emily's reflection suggests it is not specifically due to Netflix but internet streaming in general. There are a lot more easily accessible entertainment options than there used to be, particularly for families who can afford high-speed internet and multiple streaming services. Unlike television, which tells us 'it is time to take a break' when ads come on, and for children 'your show is over now' by moving on to programs that target older age groups, children can just keep watching Netflix if they want. With greater access and autonomy, all of the mothers I interviewed described the struggle to implement and enforce routine viewing habits. Bianca (40) reflects:

> [My son has] got a similar structure that I've set for him...I have to cut him off. No more Netflix. No more YouTube. Get off the computer with your friends. No more screen time...he only watches it when he comes home. And he's only allowed to watch it after he's done his jobs...So I make him do the same thing. But he would happily sit. If I didn't cut him off, I think for him it would be unhealthy and I'd worry about him.

Adults who spend less than two hours of leisure-related screen time a day—particularly women—are more likely to impose screen time restrictions on their children according to a survey of 2034 Australians in 2013 (Schoeppe et. al., 2016). The fathers I interviewed did not voice concerns over regulating their children's viewing (unlike the women), which is consistent with Schoeppe et. al.'s (2016) findings that women are more likely to enforce boundaries regarding screen time.

Earlier, Chiara (28) explained that she only permits herself to watch Netflix after she has finished her work for the day.[102] This is a motif among all my participants who grew up with television, which explains Bianca's (40) attitude regarding when her son is allowed to have screen time, specifically, "after he's done his jobs", which is "a similar structure" to her own. Bianca's concern over her son's health is supported by research on the impact of screen time on children's health and well-being. Domingues-Montanari (2017) reports that excessive TV watching has been shown to decrease physical strength in children (due to being sedentary for extended periods), diminish sleep duration and quality, and is also linked to poor diet choices and behaviours, obesity and impaired mental and emotional health. However, the struggle to self-regulate viewing behaviour with streaming services is not children-specific. Emily (42) reflects:

> I was talking to my mum about ads the other day, and she said she can't do streaming, because she can't get enough done without ads...She needs the structure of a TV show with ads to get stuff done...She said that she loves TV shows with ads, because that's when she gets up and does the washing up, and gets up and hangs the washing out, and gets up and does a job….and that's obviously just how she's structured her time around TV, like her whole life. And so she can't move to streaming, she finds streaming too intense...because she is a super routine, structured person, and maybe that's how she does it.

For Emily's mother, SVOD services are destabilising because they do not deliver programs like television does. She is so accustomed to television with ad-breaks that shifting to a format where she is made to self-regulate is too uncomfortable because it deviates from what she has known and done for a long time. This is a stark contrast to younger participants who despise ad-breaks and prefer consuming televisual content in a nonlinear format. Indeed, more agency can be

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[102] The concept of leisure and reward are dominant motives for watching Netflix, and existed with television too (Boca, 2019; Campbell, 1962).

dysfunctional or sustaining, depending on the person.

5.4   Binge-watching

Binge-watching is not a new phenomenon, but has become a popular mode of consumption (Rainey, 2015; Hiday, 2017; Jacobson, 2017; Nield, 2017; Blanche, 2018; Pilipets, 2019; Starosta & Izydorczyk, 2020). Definitions for binge-watching are largely incoherent, which makes it difficult to determine whether the practice is a cause for concern. The term has been used to describe the consumption habits of Netflix users by journalists, bloggers, academics, and users themselves (Blanche, 2018; Rainey, 2015; Jacobson, 2017; Nield, 2017; Pena, 2015). What constitutes binge-watching very much varies from person to person through highly individualised practices around televisual consumption (Jenner, 2014; Steiner, 2017). One widely accepted description of binge-watching is when someone views many episodes of a TV series, or the entire TV series, in rapid succession (Hiday, 2017; Flayelle et.al, 2017; Boca, 2019; Pilipets, 2019; Starosta & Izydorczyk, 2020; Steiner & Xu, 2020).

Netflix harnesses and capitalises on binge behaviour, directing users to this preferred mode of viewing; if individuals are hooked on a show, they are less likely to cancel their subscription (Chambliss et. al., 2017). This is one of the reasons Netflix is perceived as disruptive, given the effects of excessive screen time on the brain and overall health (Hiday, 2017; Haque, 2018; Starosta & Izydorczyk, 2020).[103] In 2017, a survey of over one thousand Australians revealed that 60 per cent of respondents regularly use SVOD services to binge-watch (Switch Media, 2018; Zaharov, 2018). All of the participants I interviewed described experiences of binge-watching, allowing me to contribute a deeper understanding of the contexts and motives behind the complex and widely debated behaviour. By approaching user experiences with the D-E Model, I can help identify problematic versus unproblematic binge-watching, which supplements discussions of Netflix as a disruptor due to its role in promoting and enabling the behaviour.

5.4.1   Before Netflix

A significant aspect of the debate around binge-watching is considering where the behaviour began. Many participants I interviewed used previous media forms to make sense of their

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[103] Binge-watching is so normalised it is a profession for some. Netflix employs people to work as 'taggers', which are essentially professional binge-watchers, who are required to watch Netflix content and note themes that can be used as 'tags' on the service, assisting with content discovery (Rainey, 2015).

experience of Netflix and their binge-watching practices. For example, Indigo (30) observes, "[binge-watching] is probably a term I used after Netflix...what binge-watching describes is something that I definitely did before. But I just never called it that." Emily (42) explains that her initial experience of binge-watching began in the cinema:

> When I was a teenager we started going to the movies quite a lot...there was nothing else to do at around 16, that was the entertainment for teenagers...they used to have movie marathons, which was awesome. So they'd normally start them at about 6 p.m., and they'd go through until 2 or 3 a.m....actually sometimes even 6 a.m....it happened probably a couple of times a year...I remember, really remember that, because we'd take our pillows, and our doonas, and like a big group of us would go for the whole night...and they'd be on a theme, so it might be like all the Back to the Future movies, or something like that, yes.

In the reflection above, Emily traces the behaviour back to movie marathons. What characterises Emily's experience as akin to binge-watching is the extended time period dedicated to the consumption of a serialised text. However, because this experience was contained to the cinema, it is different to what people perceive as binge-watching today, which is watching multiple episodes of a TV show on a SVOD service like Netflix (Starosta & Izydorczyk, 2020).

Binge-watching came to be an everyday experience as people gained more access to content and more control over their viewing. Based on the participants I interviewed, autonomous scheduling—watching whatever, whenever—and the consumption of a single TV series are distinctive features of binge-watching. For example, Emily (42) observes that the emergence of "box sets" paired with "being able to record shows" marked the initial moment that binge-watching sessions were woven into daily life. For Gus (25), it was piracy that initiated their binge-watching habits:

> I remember the first series that I had access to a lot of at the same time probably was The Office, like my friend gave me the first six seasons on a drive...so I'd maybe watch three or four episodes in one sitting or close time frame.

One of the limitations of early binge-watching methods, however, was that newer television shows cannot be binged. Gus explains it is because episodes were aired on television once a week:

> It would be like one episode a week because we were downloading them, so they were like coming out...it would have been only when I was like watching things that were fully already out, like older shows, that I might have binged.

The introduction of Netflix is transformative in terms of this experience. Netflix has not only reshaped viewing experiences, but also the production of television shows. For example, with shows made for Netflix, traditional guidelines for program length and narrative structures are a lot more flexible because they are not dictated by time-slots, advertising breaks and weekly release schedules (Boca, 2019; Starosta & Izydorczyk, 2020; Steiner & Xu, 2020). Because more and more TV shows are being made for SVOD services, Netflix users are not 'drip fed' newer content as on TV; entire seasons of shows are made accessible all at once. In doing this, Netflix prompts binge-watching, something television does not do for new television shows. Journalist Wenlei Ma (2017) writes that the ability of SVOD services to make an entire series available at once significantly changed the way people consume entertainment:

> All of a sudden, the entire season, all previously unseen content, was there to be devoured at once. We may not even have known it at the time but it changed how we talked about TV with our mates and co-workers, and our expectations of the TV viewing experience.

The 'all-at-once' release model is radically different from television, and even became known as the 'Netflix Model' and part of the 'Netflix Effect' (Welch, 2013; West, 2014; Matrix, 2014).[104] This is an example of transformation. As Ma explains above, viewing experiences were transformed—new content can now be devoured—which led to new expectations of how new TV shows should be delivered. In addition, the change in "how we talked about TV" demonstrates a significant shift in people's imaginations; TV now meant something else.

5.4.2   Attentiveness

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[104] 'All-at-once' or 'The Netflix Model' refers to the publication of entire seasons instead of weekly episodes (Welch, 2013; West, 2014).

In 2016, Netflix conducted a study whereby they analysed the completion rates of TV shows across 190 countries. Netflix created a 'binge scale' based on average viewing hours and time it took for members to complete the first season of a show. Netflix identified the most popular shows people binge-watched on a scale between shows that were 'devoured' (viewed more than two hours a day), and shows that were 'savoured' (viewed less than two hours a day) (Netflix Media Center, 2016). However, Hannah (25) points out that viewing data is only part of the picture; it is not an accurate indication of whether people are actually engaging in a binge-watching experience:

> I'm sure if somebody was just looking at my user data, like argh, you've just watched 12 episodes in a row, and I'm like yes, but I wasn't just glued to the screen that whole time. So it doesn't feel like a binge...it seems like a different experience to me.

Hannah's reflection highlights a distinction between what their viewing data says about their habits versus their actual experience. Hannah explains, "Because I'm often doing other things at the same time, maybe I don't consider it like binge-watching" suggesting that how viewers use their attention is significant for examining binge-watching practices. The fluctuating attention of viewers in the context of binge-watching has been acknowledged by scholars Steiner and Xu (2020), who developed the Viewer Attentiveness Spectrum (VAS). The VAS is used to "represent the degree to which viewers make cognitive effort to concentrate on television content." (p. 95). I use the terms 'background' and 'focussed' viewing to represent the two ends of this spectrum, however I wholly acknowledge it is more complex than that, as people's attention is never static.

Based on responses from my participants, background viewing is when content is playing on the TV or any other screen device, and the viewer is unfocused. This means they are only paying partial attention due to completing other tasks, being distracted by other devices, having conversations, daydreaming and so on. In contrast, focussed viewing is when participants are wholly attentive and absorbed in what they are watching, with minimal or no distractions. Many participants I interviewed distinguished between background and focussed viewing when discussing their overall consumption of televisual content. When asked how often they watch Netflix, Dean (24) responded "In a day, focused hours, probably one...four or five hours of it just streaming [for background noise]." This makes discourse around binge-watching complex, because unless you talk to people, it is difficult to determine the ways people are binge-watching and thus whether it is problematic.

Background viewing was not perceived as problematic among the participants I interviewed. The practice was stabilising because participants perceived background viewing as a continuation of established habits, particularly with television or even the radio. Emily (42) observes that when she was growing up, "Most of the time, yes, the TV was just on, but we weren't watching it...I would have been colouring in, or... I don't know, reading, or... Playing Lego or...the TV was always on." For many, background viewing was a habit often associated with comfort. Bianca (40) reflects:

> I'd just come home. It was all quiet...I've got issues with this...I would put the television on but softly...I'd put a documentary or something on, not a movie, not music, not an interactive thing where people are louder or softer. But something in the background that will run...even when I was little, I used to come home and switch the radio on as I walked in the front door. And then I used to walk through the kitchen and switch that radio on. Then I used to go to my room and switch that radio on. Because I just don't like the quietness. So it's rare that I would have nothing on when I'm home...I find it comforting.

Bianca mentioned that engaging in background viewing is comforting because she does not like quietness, which supports existing literature that shows people like the sound of television as 'company' (Darian-Smith and Hamilton, 2012, p. 34; Campbell, 1962; Rubin, 1983). This is another example of how comfort TV is utilised. Indeed, Martin (1996) invites one to "forget the Valium. Just turn on the television set" in order to manage stress and be "lulled into a state of passivity" (p. 21). Bianca's intention and content selection also overlaps with a TV genre known as 'Slow TV', which is "a slow paced video exploring a topic in real-time. This topic or theme is shown and analysed in a relaxed way" (All Things Nordic, 2019, para. 4).[105] Bianca is looking to avoid the quiet, but rather than put on music or a movie, she seeks something documentary-like with little variation in sound, one of the traits of slow TV.[106]

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[105] Slow TV is a Nordic TV genre that emerged in 2009 when the public broadcaster NRK aired a 7-hour long train journey from Oslo to Bergen live on television. One in four Norwegians watched it. The broadcast gained international attention, and led to the production of more slow TV shows (All Things Nordic, 2019).

[106] SBS debuted Australia's first slow TV program in 2018, which was a three-hour-long documentary without ad-breaks of the journey aboard 'The Ghan', a passenger train from Adelaide to Darwin. Although it is not clear how it was watched—as a backdrop or for focussed viewing—it was the highest

In addition to resorting to comfort TV when you cannot find anything to watch, comfort texts are often recruited for background viewing because they are familiar, simple and undemanding. Indeed, most participants will stick to certain genres or watch something they have seen before when it comes to background viewing. Dean (24) observes "it's a comfy show, and I've seen it multiple times" and Hannah (25) explains, "it has to be something I've seen before and it has to be something pretty light. So comedies or animation-type stuff" as she can effortlessly drift in and out.

Content consumption may look like binge-watching when Netflix is on for long stretches to provide comforting background noise or company, however, most of my participants reserved the term 'binge-watching' for focussed viewing. In contrast to the types of shows picked for background viewing, Dean (24) observes "focused viewing it will be new stuff." This suggests that focussed viewing is more engaging, as it requires a higher degree of cognitive effort as they enter a new narrative world. Simultaneously, focussed viewing can also be associated with comfort. With television, focussed viewing would occur with intermittent breaks provided for viewers, Dean observes "...if you're hungry, or you really want to make a phone call, or go to the toilet, you're just like; oh, I just have to wait for the ad break." Because Netflix does not schedule ad-breaks, focussed viewing becomes more purposeful. Dean explains:

> If I'm about to get into a series, or multiple movies, it's like I'm settling in...Everything must be perfect, I don't want to get up for as long a period as possible...Anything that's going to come back to haunt me later, I need to get it out of the way. Netflix time is relaxation time.

For Dean, focussed viewing is sacrosanct; creating an environment that minimises distractions and maximises comfort is proactively sought. Dean retrieves snacks, drinks, blankets and goes to the bathroom prior to "settling in." This is something he did not have to think as much about with television. Dean's experience is stabilising, however, because he did the same thing with internet piracy. For those who did not engage in internet piracy, this experience was transformative

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performing program over the past 12 months for the network, averaging 583 thousand viewers. An extended 17-hour version aired a week later (Davidson, 2018; Jeffery & Hawkes, 2021).

because this was a new mode of content delivery. Bianca (40) observes how their ex-partner creates a nest:

> I just sit and watch it. But [he] used to make a little nest, almost. He used to have a little drink. He'd have a little snack if he wanted to. The surround sound. He liked the whole thing. It was an experience for him. It's not for me. I just sit and watch and get up.

Because people are watching things without ad-breaks for the first time, new rituals appear to prepare for an uninterrupted experience. Indeed, Boca (2019) observes that "watching TV shows has penetrated people's lives so much that it has gained the accents of a ritual." (p. 10). Television was initially perceived as 'cinema at home', and Bianca's description of the nester closely resembles a cinematic experience (Darian-Smith & Turnbull, 2012; Darian-Smith & Hamilton, 2012). This is an interesting contrast to the many participants who preferred to watch things on personal devices like their laptop. Nevertheless, most participants note that food, tea, coffee, alcohol and blankets are fundamental elements to prepare for a focussed Netflix session.

Having many choices to pick from led to nuanced viewing practices that served participants' in various ways. Jess (24) explains that she will intentionally select a television show to watch in the daytime, which will be for focussed viewing, and at nighttime, something to have on in the background for falling asleep:

> I guess, because of my anxiety, where during the daytime I watch one show...and then during night, when I'm trying to go to sleep, I put another one on. The one that I watch to go to sleep to is something that goes for a longer period of time, like not episode-wise, but season-wise...I'll watch it and then I'll go to sleep, and I can hear it, and I know who the characters are, and stuff…it's not something that I'm like, oh, I can't wait to watch the next episode of that! Whereas the one that I do like during the day or like if I get home from uni or after I eat dinner...I'll watch something that I actually [want to fully engage with].

Jess' experience is an example of how people are now curating their own viewing schedules and developing routines that they rely on (Castle, 2019, p. 18). Jess relies on Netflix for emotional regulation. Because she regularly experiences anxiety, the ability to choose certain shows at

certain times is a stabilising change because it provides everyday relief. This might explain why Jess is the only participant that expressed loyalty to the SVOD service. She believes that without Netflix, "I would actually be really upset. I know that sounds stupid, but I would. I really like it, I use it every day." The length of the TV shows Jess selects is significant, which has not been emphasised in literature around binge-watching. Jess prefers TV shows with a lot of seasons for background viewing. Perhaps this is because she will get through a series faster when using it in this way, so having more seasons means she does not have to change the show she is watching as frequently. As noted earlier in this chapter when discussing the paradox of choice, Jess observes she gets anxious as she nears the end of a TV show. The experience described above is how Jess stabilises her experience. Indeed, Castle (2019) observes that individuals create structured, predictable routines in order to help "reinforce their sense of trust, confidence and contentment" (p. 15).

Narrative immersion is a characteristic of focussed binge-watching, which is when the viewer feels emotionally invested in a story. Jess' (24) daytime shows, she observes, are selected for their captivating storylines:

> I like when things, I guess, develop stronger storylines...and progress rather than fitting everything into an hour and a half...I want it to be longer, you know, rather than just one movie...any time I have a spare moment where I'm not really doing anything with my day, I'll be on Netflix...But it's not like I just watch it to tune off. Like I've talked to people about this before; like I genuinely get interested in [the stories].

The more emotionally involved a viewer feels and the more deeply they connect with the characters, the more frequently they will engage in binge-watching behaviour (Boca, 2019; Flayelle et. al., 2019). As such, creating a 'bingeable' show is now as honourable as an author's 'page-turning' novel, reflecting the ability to produce a gripping, immersive experience (Campbell, 2017). Even though other participants did not feel any loyalty to Netflix itself, the ability to be immersed in fictional worlds is important, meaningful and prioritised. Dean (24) reflects:

> I enjoy the continuity of the shows, to be able to watch something from start to finish, and not have to shift my focus to a different show, or a different

> thing…[with] Netflix, I don't really want to have to think about; oh what
> happened last time.

Dean expresses a preference for focussed binge-watching a single text without changing over to something else until it is completed. Indeed, screen writers, directors and producers are increasingly structuring seasons like a long-form movie, with one long story to be deployed over many episodes as they are released all-at-once for immediate viewing.[107] Because most Netflix users watch multiple episodes in a single sitting, there is more creative freedom as writers can assume that viewers have a fresher memory of the narrative, leading to more complex storylines (Boca, 2019). In this way, viewers can more deeply engage with characters, backstories, subtle plot lines or running jokes that reward attentive viewing or reviewing of a series (Jacobs, 2011; Jenner, 2014; Jenner, 2018). Consequently, the culture of binge-watching—which was growing before Netflix—is significantly influencing the way stories are told and consumed in the televisual ecosystem (Rainey, 2015; Campbell, 2017; Steiner & Xu, 2020).

5.4.3   Sleep

Consuming televisual content in excess can interfere with healthy bedtime routines because screens emit blue light that interferes with melatonin, a hormone that prepares us for sleep, which can allow people to continue watching beyond their body's natural bedtime (Exelmans & Bulck, 2017; Rosenberg, 2014).[108] Dean (24) observes that screen light keeps them awake "you've got this light beaming directly into your face, and even though you know you should put it down and stop watching, you don't." Focussed viewing sessions perhaps exacerbate this issue because viewers are mentally stimulated by needing to know what happens next in the narrative world. For Naomi (19), focussed binge-watching in the evenings has led to a disordered sleeping routine:

> I've stayed up late to finish watching something and then I've had to get up
> like 5 a.m. the next morning, and I regretted staying up till like 1 a.m.. I've
> done that. That's painful. Every time I'm like, I won't do that again, but then
> I do that again.

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[107] Consequently, critics are confronted with challenging deadlines and risk losing web traffic if they fail to write about and review the series quickly enough (Grandinetti, 2017).

[108] Human bodies have an internal 'clock', also known as a circadian rhythm or sleep/wake cycle, which is a natural system controlled by a part of the brain that responds to light (National Sleep Foundation, 2020).

In the quotation above, Naomi describes a kind of Netflix hangover; she enjoys regularly binge-watching but despises its consequences. Comparatively, engaging in background viewing can also influence the time people go to bed. Fox (40) explains that their experience with Netflix is often in combination with competing digital stimuli, which can obscure one's sense of time and cause them to stay up late:

> That's kind of part of the contemporary media experience, is that you might [watch Netflix] while you've got your laptop on your lap, and your phone in your hand, and you get distracted between devices, and all of a sudden it's like midnight, and you go; oh.

Binge-watching is linked to poor sleep quality, increased insomnia and fatigue (Exelmans & Bulck, 2017). Despite the regret and 'pain' from this experience, it is a recurring habit for many of my participants between the ages of 19 and 41. This aligns with findings from The American Academy of Sleep Medicine (2019) who surveyed over two thousand people. They found that 88 per cent of respondents have lost sleep as a result of staying up to watch multiple episodes of a TV show, and this figure increases to 95 per cent for 18 to 44 year olds.

At a 2017 industry summit CEO Reed Hastings openly stated that Netflix competes with sleep, "You get a show or a movie you're really dying to watch, and you end up staying up late at night, so we actually compete with sleep...And we're winning!" (cited in Bradley, 2019, para. 4; Raphael, 2017; Hern, 2017). Netflix actively promotes binge-watching in its social media marketing and has a category of 'bingeworthy' content in its recommendation menu. This not only suggests that the phenomenon is central to the brand, but that the industry is aware that staying up late to binge-watch is popular (Jenner, 2014; 2015; 2018).
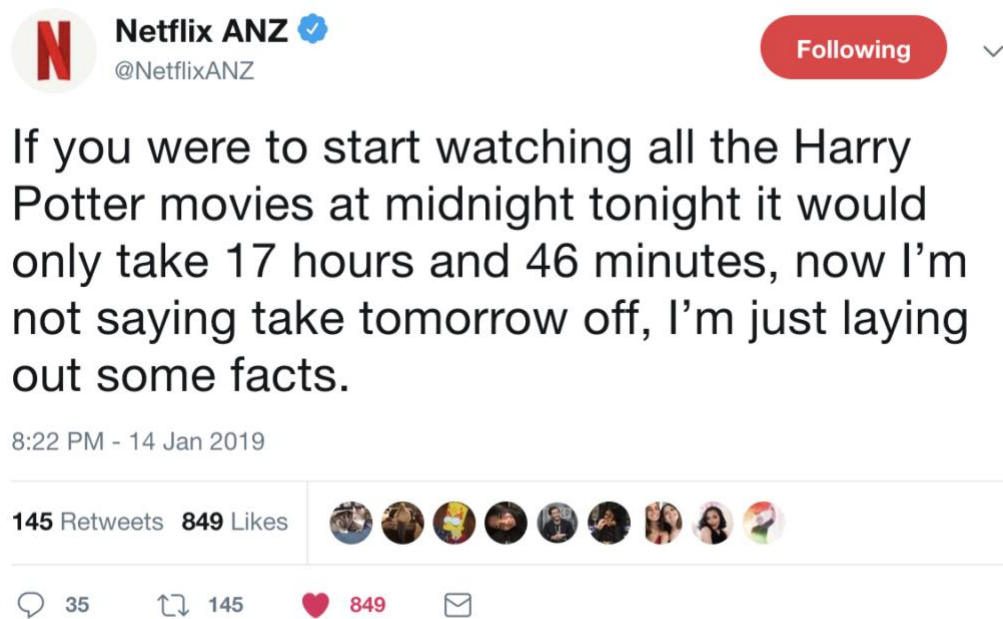
Figure 4. Netflix (2019) Promotes Binge-watching on Twitter

In this particular tweet shown in Figure 4, Netflix playfully encourages users to deprivilege sleep (and work) and engage in a binge-watching session of the popular film franchise, Harry Potter. Whether users are engaging in focussed binge-watching or streaming content in the background, Netflix pushes for excessive consumption practices to retain subscribers.

Despite its ability to interfere with natural sleep cycles—or 'compete' with them, in the eyes of Netflix's cofounder—many participants actually rely on televisual content to fall asleep, using a laptop or smartphone while in bed. Gus (25) describes how they habituated to the disturbance of screen light "I have [my smartphone] like face down so the room's not lit up. But I can hear it." Gus manages the dysfunctional element—the light—by proactively positioning their device face down. For many participants, falling asleep to comfort TV existed prior to Netflix, suggesting the SVOD service has stabilised the practice. Jess (24) explains:

> I can't sleep without [Netflix]. But it's always been like that, not just since Netflix…I feel like it's a good thing...if I try to sleep at night without anything on, I get really, really anxious and I can't sleep. But with this, like I can rely on that to always be there to help calm me down.

Among the participants I interviewed, comfort texts were utilised in various ways, including (1) when you cannot find anything to watch, (2) in between focussed binges, (3) for background viewing and (4) to fall asleep to. For Jess, Netflix reinforces her established practice of relying on a television show to relieve anxiety and fall asleep. Gus also observes that this habit existed before "I got into a habit of falling to sleep with things on. And now I almost feel like I can't fall asleep without it." Expert in sleep medicine Jamie Zeitzer notes that the inability to fall asleep is often caused by cyclic thoughts and watching a television show helps people relax and "get out of their own way" in order to get to sleep (cited in Drell, 2020, para. 7).

There are studies that illustrate the prevalence of TV and technology use within an hour of bedtime, however it is unclear how many people actually rely on televisual content to fall asleep (Gradisar et. al., 2013). My reddit findings contribute here. There are two subreddits, r/futuramasleepers, which has 5.4 thousand members and r/futurama_sleepers, which has 17.8 thousand members, representing a community of people that use this particular animated television series—their comfort text—to fall asleep. Both are contributed to frequently, suggesting not only that many people are using TV shows to fall asleep, but that the specific shows used are significant for the practice.

Figure 5. 'Netflix sleepers' on reddit[109]

In the image above, one reddit user noted that they have "a few shows on rotation for sleeping", suggesting that they have multiple comfort texts that they can recruit for this practice. Drell (2020) recommends periodically switching up the shows you use to fall asleep; relying on one show may produce anxiety when it is not available to you, especially as content becomes fragmented across SVOD services. For example, one reddit user expresses disappointment that *Futurama* is not on Netflix, as that is the show they would use for this practice (see Figure 5). This comment was highly engaged with receiving 195 points (determined by how many people 'upvoted' the comment), indicating that other reddit users feel the same way. This suggests that certain shows, like *Futurama*, evoke certain feelings for people and help them relax and fall asleep.

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[109] This screenshot is from a section of a reddit thread collected during the digital ethnography in 2018. The original post was authored by Matt Groening promoting his new show, *Disenchantment*. Field notes of this thread can be viewed in Appendix 1.

Reddit users in the r/futurama_sleepers community agree that the sense of familiarity and nostalgia are significant aspects of the practice. These are also characteristics of comfort TV texts (Castle, 2019). In addition, many reddit users in this community note that the television show acts as a kind of white noise, which helps them fall asleep.[110] This is supported by research that has found persistent, low-level noise can help improve sleep (Messineo et. al., 2017). Even though Netflix can interfere with healthy sleeping patterns, the SVOD service is stabilising. Many participants want the option to keep watching, even if they regret it the next day.

5.4.4 Overindulgence

Many studies have been conducted around television obsession prior to the popularity of Netflix, which underpin discussions of binge-watching in terms of individual health and wellbeing (McIlwaraith et. al., 1991; Horvath, 2004; Sussman & Moran, 2013). The specific number of episodes or hours spent that constitutes a binge is inconsistent between viewers and news reporters. Binge-watching is often portrayed by journalists as an extreme sport that involves 12 to 24 hour viewing sessions (Stelter, 2013). However, most binges on SVOD services such as Netflix are more casual, according to viewers themselves. Netflix commissioned a survey through Harris Interactive in 2013 that included over three thousand SVOD users in the United States. Most respondents believed binging to be viewing between two to six episodes of the same TV show in one sitting (cited in Stelter, 2013). This is quite disparate, and thus the specificity of episodes that dictates binge-watching among viewers seems to be peripheral, with one of my participants, Hannah (25) describing binge-watching as "[watching] episodes back to back...in one sitting."

Despite the negative connotations of binging in other contexts, almost three quarters of respondents from Netflix's survey expressed they had positive feelings towards their binge-watching, suggesting that many binge-watchers do not feel guilt, shame or other adverse effects from the activity (cited in Jenner, 2014; cited in Stelter, 2013). This is known as unproblematic, casual binge-watching (Flayelle et. al., 2019). Anthropologist Grant McCracken even refers to the practice of binge-watching as 'feasting', which suggests binge-watching can be joyous, positive and even healthy (Tryon, 2015, p. 105; Boca, 2019). However, Flayelle et. al. (2019) insists more work needs to be done to understand what drives the behaviour, in order to get a clearer sense of what is problematic binge-watching and what is not.

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[110] In the *Oxford Companion to Music* White noise refers to the "continuous hiss" of sound that is made up of random frequencies at equal intensities (Latham, 2011).

Most of the participants I interviewed perceived their binge-watching as casual and unproblematic. While some participants felt that binge-watching on Netflix was a waste of time or made them feel unproductive, only one participant expressed guilt and shame over a binge-watching experience and was genuinely concerned about the behaviour. Bianca (40) observes:

> I don't think that's healthy to sit like that [and binge-watch]...maybe also because television traditionally for me in my mind doesn't go for so long. A show goes for an hour. Or a show goes for half and hour. And then it's over. So to sit there and just there's more and more and it's so good. And, before you know it, hours are gone. It's weird and I don't like it...I found Outlander randomly one day when I was scrolling...But then I got completely addicted to it and couldn't stop watching it until it was all finished on Netflix, and it actually impeded on my ability to clean the house and make dinner...I felt guilty about the fact that I was meant to have probably already started dinner but I was still sitting watching [Netflix]...I was grateful when it was all over, to be honest…[binge-watching] makes me feel guilty. And I think it's because I just had to put boundaries for myself and I didn't...it's really easy to watch it...it doesn't give you any boundaries. You can sit there, literally, for the whole day if you prefer. Whereas television, it cuts you off...And it teaches you gratification. You've got to wait for next week. On Netflix, you just switch it back on and off you go...It goes against the way that I think about the world in general. There should be boundaries...When does it become a problem? Is it necessary to put those boundaries? Are they doing it for a valid reason or are they just doing it to promote more shows?

Bianca's experience with binge-watching is destabilising because (1) she believes the practice is damaging to her health (2) it caused her to deprioritise important tasks, and (3) it challenged beliefs she had regarding the way televisual content should be delivered. Bianca was distressed about her binge-watching experience because it was not normal behaviour for her and because she strongly believes TV shows should be drawn out over time. In contrast, binge-watching felt normal for other participants, specifically those who frequently used DVDs and internet piracy to consume content prior to Netflix. Bianca resists this mode of viewing and feels as though the content provider should create boundaries. Other participants prefer to be able to watch as much as they want, when they want. Yet Bianca's perception of binge-watching as addictive and

unhealthy has a rationale.[111] As of writing, there is currently no 'binge-watching disorder' in the DSM (Diagnostic and Statistical Manual of Mental Disorders). However, editor of the psychiatric handbook, Dr John Wallans, warns that like any overindulgence, a binge-watching habit can indeed develop into a disorder. Excessive binge-watching, he notes, elicits a form of escapism— a well known motive for television watching—that causes people to dissociate into states of mental inaptitude and depression (cited in Bostock, 2018; Lull, 1980; Rubin, 1983).

Ironically, many of the younger participants I interviewed felt binge-watching relieved mental health issues rather than caused them. For these participants, binge-watching was actually stabilising. Jess (24) observes "If I'm anxious, I'll watch [Netflix]...If I'm not feeling the best, like I can immerse myself in something." Similarly, Hannah (25) suggests that watching Netflix is a strategy for self-soothing "I definitely will sit and binge-watch and just watch stuff all day if I'm feeling depressed or just unmotivated...it's almost like a comforting thing." In these examples, Jess and Hannah believe binge-watching will help them feel better, so their use of Netflix is stabilising. Indeed, engaging in rich narrative worlds offers psychological relief (Boca, 2019). However, Wallans explains that even though binge-watching is a coping mechanism, too much of it can lead to psychological disintegration (cited in Bostock, 2018). This might explain why participants who regularly engage in the behaviour—casual binge-watchers—tended to have breaks between binges.

Cyclical binge-watching seems like a kind of self-regulation; however, some participants' reflections suggest it is often random and unplanned. For example, Gus (25) observes that he takes regular breaks from Netflix simply due to lifestyle, personal values or lack of interest:

> I found with Netflix if a series came out I would binge-watch it and then because I was finished with that, I wouldn't really spend much time on Netflix for a fair while...maybe I'm in a different phase of my life...spending ten hours watching a TV show doesn't seem as valuable as it used to. But I guess as well I haven't found anything that I'm super interested in.

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[111] In 2018, a man in India was treated for a Netflix addiction. The 26 year old reportedly binged seven hours of shows a day for over six months, and experienced severe eye strain, fatigue and disturbed sleep patterns (Bostock, 2018).

However, responses from other participants indicate that excessive binge-watching is destabilising and that is why they implement breaks. For example, Dean (24) will watch "a season in a week, or two seasons in a week", in which he reflects "I just get an overload." The term 'overload' suggests that binge-watching can be physically and mentally draining. Emily's (42) binge-watching pattern also suggests that it is a demanding practice:

> It really, it comes in waves...when I am having a Netflix time, I'd watch probably, I don't know, I could even watch two or three hours every night for five nights running, and then I won't watch it at all for two weeks.

Binge-watching extends early discussions around television and its impact on health, which has been criticised for "keeping you up too late", "ruining your eyesight" and "stopping you from going out in the fresh air" (Campbell, 1962, p. 19). More recently it has been argued that "taking viewers through so many emotional highs and lows may result in viewers' emotional overtaxation, leading them to be less receptive to the emotional and intellectual benefits of the show" (Flayelle et. al., 2019, p. 309). This is probably why my participants tended to have breaks between binges. The binge-break practice I have identified here is different to taking intermittent breaks throughout a binge; it refers to the period of time in between extensive, focussed binge-watching experiences. For example, when Dean said earlier he would binge a season of a TV show in one week, the binge-break would occur at the end of that week. This practice has not been detailed elsewhere, which leads me to interpret the behaviour as transformative; a new habit that has been developed due to either new modes of viewing or new beliefs around how often binge-watching should occur.

Despite the existence of binge-watching prior to the invention of Netflix, anthropologist and user-experience designer Amber Case (2017) believes the SVOD service has had a powerful role in the normalisation of binge-watching.[112] The emergence of competitive SVOD service Binge, is an indication that binge-watching has become an acceptable practice in the public eye (Binge, 2020). In the past, excessive television watching was considered to be dangerous and lowbrow. However, Steiner and Xu (2020) observe that claiming to be a binge-watcher is not a confession of weakness but a "proclamation of your cultural and technological bona fides", akin to the perception of movie marathoning as a cultural achievement (p. 85).

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[112] Turner (2019b) suggests that we might "need another descriptor that more accurately locates 'binge-viewing' as a customary social practice" (p. 9).

Besides Bianca (40), none of my participants felt that their binge-watching behaviour was particularly harmful or problematic. This suggests they either do not engage in the practice excessively or they truly believe binge-watching helps rather than harms them. Even among the older participants, extensive binges are often circumstantial and stabilising. For example, Emily (42) observes that illness will permit binge-watching, "Every time I get sick...I often find something I can binge watch, like I think to force myself to stay in bed almost." Fox (40) observes that recovering from an injury leads to a Netflix binge "I've had surgery a few times where there's been a week of recovery afterwards...well we've got to make time pass, so here we go." Participants' ability to binge-watch something of their choosing based on their mood or situation is stabilising. It was possible for them to do this with DVDs or internet piracy, but Netflix has made the practice more convenient.

5.5   Reflection & Summary

This section explains how my results provide a better understanding of the user experience of Netflix in Australia. The application of the D-E Model to the empirical data allowed me to probe and explore various aspects of the user experience in a consistent way. Most strikingly, Netflix was overwhelmingly—but not exclusively—stabilising for participants. This means Netflix often led to sustaining experiences that reinforced existing and desired thoughts, feelings and practices among the Australians I interviewed and based on discussions observed from reddit.

Most notably, Netflix was stabilising for those who engaged in internet piracy. Piracy was the 'middle-man' between television and Netflix for almost every participant between the age of 24 and 41. Indeed, piracy records have shown Australians to be the worst offenders across the globe (Quinn, 2017; Whigham, 2018). Internet piracy is the main reason why Netflix was stabilising, because participants were consuming content in a similar way. This also echoes Jenner (2018) and Barker & Wiatrowski (2017) who acknowledge that Netflix has not been the singular driving force in the reconception of television. The landscape has been and continues to evolve due to various social and technological developments. The dichotomy between the industry and user experience of Netflix in Australia is pronounced. As I discussed in the previous chapter, Netflix was a genuine disruption and threat to the national television industry as it was a legitimate opponent (in contrast to piracy) that was immediately popular. In terms of users, however, Netflix was the next logical step.

In the previous chapter I explained how viewing experiences in Australia shifted from primarily familial, to independent, to personalised. This chapter provides more detail about this evolution, with the general trajectory for my participants being television, then piracy, then Netflix. Participants described growing up watching television with their family in a common space, with television programs often dictating and enforcing meal times, bed times, chores and so on. There is a large body of research on television and family dynamics and it has even been described as 'part of the family' in public and scholarly discourse (Darian-Smith & Turnbull, 2012, p.3). I did get a sense of family dynamics from my results, for example when participants would speak about sharing their Netflix subscription and watching things independently but still in a common space. Further research could look more closely at individual users within the same household, which could explicate how routines and relationships among other household members shape, enable or challenge independent viewing practices. Some participants observed getting a TV in their bedroom as a meaningful moment, because they were able to watch what they wanted.

The introduction of internet streaming and piracy then greatly supplanted the use of television for most of my participants. The inability to access international content at the time of its release and lack of government intervention were drivers of piracy among participants. However, participants also emphasised that autonomy was important to them. Internet piracy allowed for autonomous scheduling and enabled binge-watching, and created a completely different experience to watching television. In addition, participants relied on personal devices like computers and laptops to download and stream pirated content, which further demonstrates the change not just in how they were accessing televisual content but how they were watching it. Piracy was transformative because it was so different to how people were consuming content beforehand. The only familiar thing with piracy was the actual content—the TV shows, films and so on—but the way they accessed it and the way they watched it was in a way that had never been done before. Netflix was new, but it was stabilising because it did not fundamentally change what most participants were doing.

My findings suggest that the prevalence of internet piracy in Australia led to a seamless transition to Netflix. Many participants made the switch to Netflix simply because it was a convenient and affordable alternative to piracy, while others were paranoid about getting caught accessing content illegally due to the government crackdown. Nevertheless, this transition reflects the significant decline in piracy rates that has been documented since the arrival of Netflix (Quinn, 2017; Screen Australia, 2017; Whigham, 2018; Roy Morgan, 2016). Internet piracy enhanced participants' viewing experiences because they felt more in control and were able to consume televisual content

in the way they wanted. Participants spoke about internet piracy a lot, and often used it as a reference point for both television and Netflix, suggesting it has had a meaningful role in the evolution of their viewing habits.

However, many participants could not even remember when they got Netflix; they did not have a loyalty to the service. An industry perspective might be that the shift from unlawful to lawful practice is greatly transformative, but among the participants I interviewed, it was not perceived as a novel change. Consuming content in a convenient way was the priority, the legality of Netflix was just a bonus. In addition, if the arrival of Netflix did not coincide with the Australian government's crackdown on internet piracy, I believe many people would still be engaging in the practice.

In terms of whether Netflix is television, participants were not concerned with what a specific technology is or is not, but rather what their experience is like. Specifically, participants are eager to embrace technologies in an ever-evolving televisual environment that provide access, autonomy and personalisation at an affordable price point. Participants used Netflix for many of the same reasons Australians have watched television, including relaxation, entertainment, habit, escapism, sociality and the sound of company. However, there are additional motivations for Netflix viewing. Literature in the previous chapter suggested that Australians prefer high profile American drama and comedy because local content lacks quality and diversity (Bennett et. al., 2020; Lobato, 2019; Masige, 2020). Indeed, all of the participants I interviewed had an aversion to local content on Australian television. This was one of the reasons participants sought televisual content in other ways through the use of DVDs, internet piracy and eventually Netflix. Most notably, I found that some participants revered Netflix for mitigating the Australian TV delay and the sense of feeling 'left behind', which has not been discussed by academics.

Another motivation for Netflix viewing that also overlaps with the motives for piracy, is the desire participants had for feeling more in control over their viewing. In the previous chapter I reviewed various technologies of agency like the remote control, VHS, DVD box set and DVR device. Unlike the television industry, which was threatened by the remote control, Netflix wants viewers interacting with their service as much as possible. Similar to internet streaming and piracy, participants liked making decisions regarding what and when they watched. Netflix gathers these data, which help them create personalised viewing experiences for users and know what types of content to produce, acquire and invest in. Most participants were aware that they are part of this circuit of exchange. Moreover, they were satisfied with this aspect of the SVOD service because

they liked having tailored viewing experiences. Netflix undoes the ad-break broadcast model, but it is an iteration of principles around autonomy and on-demand viewing we saw with earlier technologies of agency. For the user, Netflix builds on these legacies, it does not undo them.

Most participants did not find Netflix predominantly destabilising. Of course, if they did they would not use it. However, participants did describe some experiences whereby their agency or existing certainties were challenged. For example, parents can no longer rely on television to regulate viewing behaviour for their children, due to the prevalence of streaming services. This fundamentally challenges what the parents have previously known; there is not a 'built in routine', as one participant observed. This is why the concept of destabilisation is useful; while participants love that SVOD services offer more choices than television, allow for autonomous scheduling and have useful control functions, other issues regarding agency manifest and need to be accounted for. This is elucidated in participants' response to the autoplay trailers feature, for example. Autoplay trailers were a dysfunctional change because they did not enforce the sense that participants were in control as other features on the service did. Participants despised this feature for the same reason they loathed ad-breaks; they were an interruption that they did not choose and could not control.

The paradox of choice is the most significant destabilisation in terms of agency because everyone I spoke to experienced it. Despite many participants engaging in internet piracy, whereby they could access almost anything they wanted, only one participant described experiencing the paradox of choice prior to Netflix. Netflix seemed to cause decision paralysis to an extent that participants had not felt before. Participants noted that Netflix was more overwhelming than trawling through titles in a rental store, and it was suggested that this was because scrolling through the platform is less physical. Finding something new to watch on Netflix was described as a mindless activity. Interestingly, in terms of access to content, Netflix is actually a step back from piracy—because there are more restrictive boundaries around choice. Even though Netflix does not provide access to as much content as piracy does, participants still felt like their choices were abundant and endless; it was even anxiety-provoking. Participants liked having options to choose from, giving them a sense of agency. However, their agency was simultaneously undermined in pursuit of the perfect choice—if there is such a thing.

Netflix did not create binge-watching, but normalised it. Participants recounted their binge-watching behaviour with DVDs and piracy, and the non-loyalty to Netflix among my participants suggests that there are principles people are drawn to, rather than specific technologies or services.

Indeed, I observed in both the literature and my results that Netflix users typically value experiences that are: algorithmically driven because they create a personalised experience; allow for autonomous scheduling; and free of ad-breaks because the "rule of non-interruption is implicit" (Lull, 1979). It is these principles, not Netflix itself, that drive binge-watching behaviour.

Furthermore, binge-watching might not mean what we think it does. Based on definitions and other contexts, the term 'binge' indicates a harmful overindulgence. The etymology of the word 'binge', however, means 'to soak', which is quite different (Hoad, 2003a). Participants observed that binge-watching is generally characterised by focussed viewing; they are fully immersed in their narrative world, which reflects its etymology. Many participants did not feel that focussed binge-watching was problematic, though one older participant did. This participant felt guilty— and helpless—for prioritising a TV show over other things she believed were more important. The experience was destabilising because it challenged other things she valued and her beliefs regarding delayed gratification. This participant's experience also emphasises that mindset—in particular how we judge ourselves—plays a big role in whether users believe their binge-watching is problematic. Overall, my results revealed that everyday binge-watching practices are not inherently problematic because users are not always engaging in focussed viewing. In addition, younger participants tended to use Netflix as a reward and binge-watch in cycles, which is how they regulated the behaviour. Background viewing, and the emergence and popularity of slow TV is an interesting example of new habits of consumption—whereby content behaves as an ambient backdrop to create space for contemplation—and should be accounted for in discussions of binge-watching.

Netflix was perceived to have had a disruptive, "immediate and profound" impact on the Australian television industry, which was dominated by FTA broadcasters until the arrival of SVOD services (Lobato, 2019, p. 12; Turner, 2019a). In terms of the user experience, it was more stabilising than it was transformative or 'profound'. Participants I spoke to that did not engage in internet piracy still went to TV first, so Netflix did not transform their viewing experience, it was complementary. This is particularly significant; Netflix was considered disruptive, adopted in large numbers, yet statistics show that FTA has not gone away, and my research sheds some light on why this may be the case; habit and the 'fear of missing out' (Screen Australia, 2018a). In addition, almost a quarter of the Australian population were still engaging in internet piracy after Netflix arrived, so for a significant portion of the nation, Netflix was not fundamentally transformative.

The arrival of the SVOD service seems to some scholars to represent a moment whereby Australians began embracing a new televisual environment (Bennett et. al., 2020). However, my results suggest that there has been no singular moment where consumption habits collectively shifted. Indeed, the impact Netflix had on the NBN does indicate a groundswell of streaming behaviour, but this is likely due to people simply seeking out more digital services as they become available, supplementing their television viewing. While Netflix has been the "most dramatic disruption" for the Australian television industry, this does not accurately depict the experience of users (Bennett et. al., 2020, p. 85; Turner, 2018).

6
The Game Changer

6.1 Introduction

The purpose of this chapter is to understand how *Pokémon GO* (PoGO) came into being and provide the necessary context that led the AR mobile game to be labelled as disruptive. This chapter sets up the investigation of PoGO by reviewing the transformation of the mobile phone from a communication tool to an intimate portal for productivity, entertainment and communication. I discuss how the development of augmented reality (AR) technology, digital mapping, location-based games and games that incorporate physical activity fed into PoGO, as it took all of these elements and combined them into a game based on the globally recognised, multibillion-dollar franchise, Pokémon. Traversing this literature is critical for building a comprehensive case study and it orients the analysis and discussion of user experiences in the following chapter.

6.2 Significance of Pokémon GO

PoGO has been iconic for the history of mobile gaming and AR technology (Destreza, 2017; Louis, 2018). PoGO is a location-based AR gaming application for iOS and Android smartphones and devices, developed by Niantic in collaboration with Nintendo and The Pokémon Company. PoGO launched on 6 July 2016 in Australia, New Zealand and the United States, and has since rolled out to over 100 other countries throughout Europe, Asia, Latin America and Africa (Wilson, 2016; Hjorth & Richardson, 2017; Stewart, 2017).

PoGO led to an intense global craze that no other mobile game had seen, and was persistently referred to as disruptive following its arrival for various reasons (Straw, 2016; Raegan, 2016; Benoy, 2016; Linkner, 2016; McDermott, 2016, Gould, 2016; Gordon, 2016; Klein, 2016; Haigh, 2017; Hjorth & Richardson, 2017; Stewart, 2017). Most notably, PoGO has been described as "a game changer for the physical inactivity crisis" and for mental health by academics, and journalists and business people have also referred to it as a 'game changer' for marketers and AR technology (LeBlanc & Chaput, 2017, title; Patel, 2016; Hobbs, 2016; Ellis et. al., 2020).

Notwithstanding its explosive, 'faddish' peak and the subsequent rapid decline in players, PoGO is still massively popular with an estimated six million daily players in 2021 (Iqbal, 2021b; ActivePlayer.io, 2021).

6.3 Context

The various technologies, concepts and phenomena that made PoGO possible have their own extensive histories. Christensen (1997) notes that "historically, disruptive technologies involve no new technologies; rather, they consist of components built around proven technologies and put together in a novel product architecture that offers the customer a set of attributes never before available" (p. 165). Indeed, to understand how PoGO came into being and give context to how it is experienced and why it was perceived as disruptive, we must review the history of mobile and smartphone technology, handheld gaming, exergaming, Geocaching, digital mapping, AR and of course the global multimedia sensation, Pokémon.

6.3.1 The Mobile Phone

The history of mobile phone technology brings an important context for mobile gaming applications like PoGO. Developments in telecommunications have significantly influenced the relationships between people, travel, time and place. Initially, messages relied on the physical transportation of information by foot or horse, until the advent of telegraphy, telephony and radio communication. Radio waves and electrical wires through the land meant that messages no longer required a messenger, just two fixed points for sending and receiving. Mobile telephony then facilitated the liberation from place that was characteristic of landline communication, and knowledge of a fixed location was no longer needed (Goggin, 2006; Jessop, 2006). Instead, "the person has become the portal" (Haythornthwaite & Wellman, 2002, p. 34). Cellular networks began in Japan in 1979, but did not arrive in Australia until 1987 with Telecom's Advanced Mobile Phone System (AMPS). Both car-mounted and transportable phones were offered, with handheld devices priced at around AU$4,250. Cost did not deter the desire for instantaneous communication; in 1989 there were 100 thousand AMPS services, and by 1996 there were 2.6 million (Goggin, 2006; Jessop, 2006). Improvements in batteries have been instrumental for the mobile world, significantly reducing the size and weight of handheld devices, making them increasingly powerful and portable (Goggin, 2006; Agar, 2013).

Technological improvements, falling prices and the expansion of network infrastructure led to the adoption of the mobile phone as a common personal communication tool that became part of

everyday life. The number of mobile phones overtook landline subscriptions in Australia in 2001, and worldwide in 2002. By 2002, Australian mobile ownership reached 12 million (Goggin, 2006; Agar, 2013).[113] Mobile phones reconstituted the boundaries between public and private, and between work and leisure (Goggin, 2006). The mobile enhanced "social connectedness, immediacy, accessibility, availability, security and emotional reassurance" (Jessop, 2006, p. 50). The ubiquity of mobile phones and their role in organising and coordinating daily life was so impactful, that it has been understood as an extension of the body and even specifically as an 'umbilical cord' (Ling, 2004, p. 48; Ribak, 2009, p. 185; Jessop, 2006; Goggin, 2006).

The increasing intimacy of the mobile led to anxieties around the new technology leading to new problems. For example, new technologies of mobility led to new crimes. Despite phones no longer being housed in automobiles, the car and the mobile phone remain entangled; a common road offence is using a mobile phone while driving (Agar, 2013). The Australian NSW government revealed that approximately one in 10 fatalities is a result of distracted drivers, of which mobile phones are the primary culprit (Roads and Maritime Services, 2017). The way mobile phones are integrated into daily life is an important context for understanding some of the disruptive elements of PoGO. Because PoGO is a game accessed through a mobile device, it is easily adopted into everyday routines. This led to people to play PoGO while driving, and the game made headlines for contributing to road accidents. However, one cannot ignore that this is part of a broader issue of drivers being distracted by their mobile phones, which existed prior to the arrival of PoGO.

6.3.2   Handheld Gaming

Electronics and video game company Nintendo, one of the makers of PoGO, monopolised the handheld gaming market in the 1990s and early 2000s. The first handheld electronic game was developed in 1977 by multinational toy manufacturer Mattel. The device allowed users to play a simple racing game, but it did not catch on. Mattel's second handheld game, *Football II*, launched the following year and was quite successful, opening up the landscape of portable gaming systems (Derene, 2013; Kooiman & Sheehan, 2015).

Nintendo introduced the Game Boy in 1989 and dominated the handheld gaming market. This portable device did not have an inbuilt game like Mattel's, but allowed players to input games of their choice. Nintendo released the DS (Dual Screen) device in 2004, offering a two-screen

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[113] Mobile phones were initially marketed toward business men and women, however, young people quickly began to represent the market's highest growth segment (Goggin, 2006; Agar, 2013).

design, updated graphics and internet connectivity, increasing the interactivity for players (Kooiman & Sheehan, 2015). Nintendo resisted creating mobile games—a decision that was heavily criticised—because they believed it would negatively impact their hardware sales (Wakabayashi, 2013; Thompson, 2015).[114] It was not until 2016 that they broke into the mobile gaming market, which included a number of endeavours, such as the social networking app Miitomo and of course, PoGO (Wilson, 2016).[115]

6.3.3   *The Smartphone*

Software applications (apps) brought handheld gaming to all smartphone users. The smartphone was a revolutionary transformation of the mobile phone into a radically new personal device; a computer that fits in your pocket. Early mobile handsets included aspects that suggested the device could be used for more than just communicating. Mobile games, for example, gained traction in 1997 when *Snake* first appeared on the Nokia 6610. Since then, the improvement of mobile networks, phone screens, software and the development of applications transformed the mobile beyond a mere instrument of communication. In early 2003, Nokia led a notable shift in mobile gaming with the announcement of the N-Gage, which was both a mobile phone and a handheld gaming system. Mobile gaming then exploded with the revolution of the smartphone (Destreza, 2017).

The launch of the Apple iPhone in 2007 was not the first smartphone, but was a defining moment for the new technology. It was accompanied by an ever-growing pool of software applications that could be downloaded or purchased by users through Apple's App Store, to make the device more personalised and functional. The App Store model opened up opportunities for developers to create games and prompted users to find games they wanted to play (Agar, 2013; Wright, 2016; Kooiman & Sheehan, 2015). This meant that everyone who owned a smartphone had a handheld gaming device.

In addition to a communication tool, smartphones have become intimate portals to this prolific culture of gaming, music, business, productivity, health and wellbeing, social networking and

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[114] However, Nintendo did license some of its properties—like Pokémon—to third-party developers who made mobile games (Webster, 2017).
[115] In 2017 Nintendo released a hybrid console, the Nintendo Switch, which doubles as a home gaming system as well as a portable handheld device. The Switch was the best selling console in 2019, which suggests there is still a huge market for handheld gaming systems in spite of the popularity of mobile games (Huang & Webb, 2019).

more (Agar, 2013; Kooiman & Sheehan, 2015). In 2006, prior to the iPhone, less than four per cent of mobile phone users in the United States downloaded a game (Agar, 2013). By 2012, a British study found that making phone calls was the fifth most common use for smartphones, following internet browsing, social networking, listening to music and playing games (O2, 2012).[116] In 2019, gaming accounted for 43 per cent of smartphone usage, with mobile games accounting for over half of the global gaming market (Dobrilova, 2020; Lynkova, 2020).

The mobile gaming market in Australia is growing, contributing over AU$1 billion in revenue each year. Two-thirds of smartphone users play games on their device, with 75 per cent of Australians claiming to play more mobile games than the year before (Venture Insights, 2019). The most successful mobile games are simple, addictive, and make their money through direct sales of in-game items, microtransactions and advertising (Agarwal, 2017).[117] Rovio Entertainment's *Angry Birds*, for example, involves using a sling shot to destroy the support beams of pigs who have stolen your (the birds) eggs, and players have to spend money to unlock new levels (Agar, 2013; Patel, 2018).[118] The following chapter will consider the appeal of PoGO for players; is its popularity due to being simple and addictive like other mobile games?

6.3.4 *Exergaming*

PoGO intentionally combines gameplay and physical activity, but this is not new; it is a defining characteristic of the exergame genre. Exergaming, as the term suggests, is the convergence of exercise with video games. While the term 'exergaming' did not appear in popular dictionaries until 2007, the phenomenon has existed since the 1980s. Exergaming emerged as an opportunity to combine two powerful markets, video games and fitness, but also as a response to the associations made between video games, sedentary lifestyles and the health implications that go along with it. Video games have historically been the focus of discussions around the negative consequences of being idle and staring at a screen for extended periods.[119] Video games are often blamed for contributing to childhood obesity and excessive media use in general, leading to labels

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[116] Smartphone usage grew from 30 to 56 per cent of the mobile phone market between 2011 and 2012 (Lotz, 2014).

[117] Microtransactions refer to small purchases made by players to unlock further gameplay, gain extra lives or special items, and speed up the gaming process. Microtransactions have been criticised for being an exploitative model that resembles gambling (Agarwal, 2017).

[118] *Angry Birds* saw US$12 billion in revenue in 2012, and US$50 billion in 2017 (Agar, 2013; Patel, 2018).

[119] Video games have simultaneously been praised for adding value to people's lives through enjoyment, relaxation, cognitive stimulation, creativity, problem solving and motor skills (Oh, 2012).

such as 'addictive' and 'brainwashing' (Klein & Simmers, 2009; Oh, 2012a; Van Pelt, 2013; Finco & Maass, 2014).[120] Sween et. al. (2014) affirm that Americans do not meet weekly guidelines for physical activity, and they spend significant amounts of time engaging with media through screens.

The intention behind exergames is to link a single gaming medium with physical activity, whereby the player can have fun and be entertained while increasing their energy expenditure. This has been achieved by game designers experimenting with ways to get players interacting with games using their body. The evolution of exergaming has been reliant on technological developments; new designs and devices have allowed for richer and more immersive experiences for exergames. Consequently, exergames are a useful tool for the promotion of active lifestyles as well as a resource and support mechanism for individuals (Machulis, 2005; Finco & Maass, 2014; Sween et. al., 2014).

The design of PoGO is centered around getting people to exercise, and it is clear that Nintendo has always had a vision to combine exercise with gameplay if we consider their previous endeavours in the exergame genre (Weinberger, 2016). There is a long history of projects within the interactive gaming market, with various interfaces and prototypes designed to combine movement and entertainment. Video game company Atari started it all with the release of the Joyboard in 1982. The Joyboard was a simple balance board in which players would stand on top and lean in different directions to control activity on the screen (Oh, 2012a; Finco & Maass, 2014).[121] The challenge of this interface led to a poor response among gamers. According to Finco and Maass (2014), players could not enter a 'flow state' with the Joyboard because the physical interaction with the board interfered with their concentration on the game.[122] This suggests that early challenges for exergames included coming up with designs that were simple, immersive and intuitive. These kinds of projects were thought to be an acknowledgement by gaming companies that children were becoming addicted to their products, and an attempt to capitalise on two major markets: gaming and fitness (Machulis, 2005; Kooiman & Sheehan, 2015).

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[120] Journalist Nicole Pelletiere (2018) argues that people should be cautious when describing gaming behaviour using harmful labels like 'addiction', which dismiss any notions that games can be beneficial to people's lives.
[121] The Joyboard's primary game was *Mogul Maniac* which aimed to replicate the experience of skiing (Oh, 2012a).
[122] 'Flow' is a concept in positive psychology that refers to a highly focused cognitive state in which one is completely absorbed with the activity at hand. Flow states are synonymous with the feeling of being 'in the zone' during bouts of productivity or adventure (Csikszentmihalyi, 1975; 1990).

In 1988 Nintendo entered the market with their Power Pad, which was a floor mat with pressure sensors for players to step on. The Power Pad introduced a number of new exercise games, with *Dance Aerobics* being one of the most popular. In 1998, entertainment company Konami introduced *Dance Dance Revolution* (DDR), where players had to step on arrows that were either up, down, left or right in sync with the arrows and music on the screen. DDR was a popular arcade game in the late 90s, and newer versions still exist in arcades today. Home versions of the game included calorie counting options for players to track their energy expenditure (Machulis, 2005).

In 2007, Nintendo released the Wii Fit, which was a balance board developed for their newest console, the Wii, and became one of the best selling video games in history (Martin, 2019). The Wii Fit included around fifty different activities such as yoga, skiing, tennis, and aerobics, hoping that by integrating physical movement the gaming experience would be more realistic. In 2009, *EA Sports Active* arrived for the Wii and is played primarily with the Wii remote, to complete high intensity workouts at home with the assistance of a virtual trainer (Klein & Simmers, 2009; Oh, 2012b; Van Pelt, 2013; Martin, 2019).[123] In late 2010, Microsoft launched Kinect for their Xbox gaming system. The Kinect was a new technology that could totally recognise human movement, allowing players to interact with games by moving their arms, legs, head, waist and feet. On the Wii Fit, by comparison, movements were conditioned to the balance board beneath one's feet and the handheld remote control (Klein & Simmers, 2009).

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[123] Wii Fit Plus arrived in 2009 and included more activities (Martin, 2019).

Figure 6. Pokémon Pedometers

Alongside the exergaming endeavours detailed above, Nintendo released several handheld Pokémon Pedometer devices, shown in Figure 6, that were forerunners to the concept of PoGO in that players were encouraged to move outdoors. The devices are small, light and have a clip, making it easy for players to affix to their waistband or simply carry in their pocket or bag. The Pocket Pikachu arrived in 1998 and was a digital pet that issued a virtual currency—credits— according to how many steps were taken. The credits could then be used to buy presents for your pet. Its successor, the Pocket Pikachu 2 GS had coloured graphics and allowed players to transfer data with *Pokémon Gold* and *Pokémon Silver* that were played on the GameBoy (Thomas, 2013; Naudus, 2016). The Pokéwalker, released in 2009 was another pedometer device that rewarded users for their daily step count and social interaction. Steps accumulated by players are converted into points that players can use to catch Pokémon and obtain items using the device, which can be transferred to *Pokémon HeartGold* or *SoulSilver* on their Nintendo DS. The device came for free in a bundle when these games were purchased. The device used infrared waves to connect to other Pokewalkers and transfer data to the Pokémon games, however they had to be approximately five centimetres apart from each other (Naudus, 2016).

Prior to the Pocket Pikachu 2 GS and the Pokewalker, Pokémon games were contained within actual gaming machines. These were the first devices that allowed daily activity to contribute to gameplay, foreshadowing the concept of PoGO (Naudus, 2016). Reporter and video game critic Seth Schiesel (2010) predicted that players might feel as though they would fall behind in the game if they did not carry their Pokewalker around with them. However, there have been no studies conducted regarding gameplay with these particular devices to test this hypothesis and it is also unclear how popular they were. The products are no longer sold by Nintendo but can be found on eBay and Amazon by third party sellers, and are marketed as collectable 'vintage' items. In this review of exergame history, evidently, Nintendo has been interested in combining video games and physical activity since the eighties, and has been a key player in the exergame genre.

The impact of exergames has been reviewed in a variety of applications. For example, exergames have been incorporated into physical education classes at schools and used by physical therapists for elderly, disabled and injured patients. Hospitals have also utilised exergaming technology for both entertainment and recovery for patients. The implementation of exergames into schools, health centres, hospitals and gyms has been a means to motivate people to exercise and address the obesity crisis in the West. The entertainment aspect of exergames is thought to be intrinsically rewarding for players (Klein & Simmers, 2009; Van Pelt, 2013; Kooiman & Sheehan, 2015). One study found that people were more motivated to exercise every day when it was reinforced with an exergame (O'Connor et. al., 2001).

Exergaming has been studied for its beneficial impact on weight loss, fitness, and role in increasing overall physical activity for people of all ages. Research has suggested that exergames have not only improved people's fitness and Body Mass Index (BMI), but also influenced their quality of life by contributing to positive attitudes toward physical activity, social connectedness, better psychological functioning, enhanced self-worth, improved balance and postural control, as well as reduced fatigue severity, pain intensity and anxiety (Yuen et. al.; 2011; Anderson-Hanley et. al., 2011; Wagener et. al., 2012; Sims et. al., 2013; Van Pelt, 2013; Sween et. al., 2013; Kooiman & Sheehan, 2015).[124] In the following chapter I discuss how much of the literature on

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[124] Despite these benefits, exergames have still received some criticism. Skeptics put forth that exergames cannot provide users with the same intensity of exercise as real sports or gym equipment or that they are addictive because they are video games. However, exergames have never intended to replace existing modes of exercise but rather be an additional motivator and resource for sedentary people who enjoy games (Klein & Simmers, 2009).

the user experience of PoGO is centered around its positive health outcomes, which builds on this large body of research on the benefits of exergaming.

PoGO is not a traditional exergame, but it does crossover with the exergame genre and has been commended by experts in psychology and medicine and celebrated for its capacity to address sedentary habits (Althoff et. al., 2016; Pressman, 2017). Indeed, PoGO has built on the concept of gaming and physical activity, a genre in which Nintendo has been an active player for decades. The key difference between PoGO and conventional exergames is that PoGO does not monitor the body's movement, but rather tracks the players' location in order to determine their movement geographically. The use of geospatial data means PoGO intersects and builds upon another gaming genre: location-based games.

6.3.5 Geocaching

Geocaching is a critical plot point in the history of location-based games and has even been referred to as "The Original Pokémon GO" (Toth, 2018, title). Geocaching is a location-based game that began in 2000 and is frequently described as a modern day treasure hunt. Geocachers use Global Positioning System (GPS) software to locate hidden caches or 'treasure' in various locations. GPS, a system that determines geographical positions on the earth works by negotiating signals from earth-orbiting satellites (Ince 2019b). The concept of the GPS dates back to 1957, but was first introduced for military use in 1973, and by 1999 it was available for civilian use and began to be integrated into mobile phones (Sullivan, 2012). On 2 May 2000 there was a significant update of GPS, and the accuracy of the technology improved tenfold for everyone in the world. The White House announced that people could now "precisely pinpoint their location or the location of items left behind for later recovery" (cited in Geocaching, 2020b, para. 2).

GPS technology, the online community and motivation for outdoor adventure are the bedrock of Geocaching. The overnight update of the GPS triggered waves of ideas about how the technology could be used, and the concept of Geocaching was born. The next day, on 3 May, computer consultant Dave Ulmer sought to test the accuracy of the updated GPS by hiding a container in Beavercreek, Oregon bushland and noting the coordinates. Ulmer titled this project the 'Great American GPS Stash Hunt' and posted the navigational target in a GPS forum on the Internet. The idea was that someone with a GPS receiver (a device with GPS hardware or software) could locate the container, retrieve something from it and add something to it. The concept spread quickly; people were excited about the newness and novelty of this idea. Mike Teague was the first person to locate Ulmer's stash, and was an active member of the GPS online community.

Teague began collecting coordinates people were posting on various online forums and put them on a single webpage called 'GPS Stash Hunt', which had a mailing list for people to keep updated with emerging activity. The term Geocaching was then suggested by mailing list member Matt Stum on 30 May 2000. The prefix 'geo' represents the global and geographical nature of the activity and 'caching' refers to a hiding or storage place (Geocaching, 2020b; Sherman, 2004).

The website Geocaching.com was developed by GPS enthusiast and scholar Jeremy Irish in September 2000.[125] At this time there were 75 known caches in the world, now there are over three million active geocaches worldwide, demonstrating the popularity of the phenomenon (Geocaching, 2020b; Geocaching, 2020a).[126] Initially, only experienced GPS users pursued Geocaching; the activity required sufficient access to and knowledge of navigational resources such as maps, compasses, GPS receivers, watches, radios as well as hiking preparation skills, Geocaching etiquette and mobile phones for safety.[127] Now, any smart device can do it all; people can download the Geocaching app and begin their adventure. Indeed, technological developments contributed to the worldwide success of Geocaching by making the activity simpler and safer, paving the way for future location-based games like PoGO (Geocaching, 2020b; Sherman, 2004; Kooiman & Sheehan, 2015).

Like exergaming, Geocaching became known as yet another strategy for encouraging young people to be physically active by integrating leisure, gaming and technology. Geocaching has been reviewed in scholarly literature regarding its positive impact on improving physical activity levels, particularly among youth (Battista et. al., 2016; Battista & West, 2018; Robinson & Hardcastle, 2016). The perception of PoGO as novel is in part due to its ability to motivate people to explore the outdoors, but as we have seen, Geocaching had already been doing this for some time. What sets PoGO apart is its integration of AR technology.

6.3.6   *Augmented Reality*

PoGO is an AR game because it uses technology that superimposes virtual elements onto the player's real world surroundings. AR augments the sense of reality by superimposing computer

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[125] Geocaching.com remains the official web domain for the activity today.

[126] The U.S. company Groundspeak Inc. operates the Geocaching website and supports the global community of players (Geocaching, 2020a).

[127] Geocaching etiquette refers to placing located caches in the same place they were found and if removing any items, you must leave something that is of equal value or greater (Geocaching, 2020b; Geocaching, 2020a).

generated virtual objects on the physical environment in real time. This element refers to an enhancement of the user's perception through sight, sound, smell or touch as they interact with the real world. AR differs from virtual reality (VR), as it converges the real and the virtual, as opposed to simulating the real with the virtual (Isberto, 2018; Carmigniani et. al., 2011). VR "completely immerses users in a synthetic world without seeing the real world" (Carmigniani et. al., 2011, p. 3).[128] The clunkiness and cost involved in a VR experience has meant VR games have not been mainstreamed. For example, in 1995, Nintendo attempted a VR game, Nintendo Virtual Boy, however the bulky headsets required were not ideal and led to the game's demise. Nevertheless, this demonstrates Nintendo's early desire for merging reality-altering technologies and gameplay. AR technology is one of the most recent developments in mobile gaming and PoGO has been influential in bringing AR to the mainstream (Destreza, 2017).

The history of AR demonstrates its value in various contexts. The technology of AR was initiated by cinematographer Morton Heilig in the 1950s. Heilig believed the experience of cinema had the potential to completely immerse viewers into onscreen activity by effectively appealing to all of their senses. In 1962, Heilig built a prototype, Sensorama, where theatre patrons could experience simulated sensations, sounds and smells that corresponded with the onscreen activity. This 'experience theatre' would now be representative of VR, however. Computer artist Myron Krueger developed the first interactive environment in 1974 called Videoplace, which used a projection system and video cameras, allowing users to interact with virtual objects. It was not until 1990 that the term AR was coined, when Boeing researchers Tom Caudell and David Mizell were assembling wires and cables for an aircraft (Carmigniani et. al., 2011; Berryman, 2012).

In 1992, Louis Rosenburg from the U.S. Air Force Research Lab created Virtual Fixtures, the first functional AR system. The system improved human performance by placing virtual information on top of objects in the work environment. Most modern AR systems are based on this model (Carmigniani et. al., 2011). In 2000, a significant advancement was made for AR when Hirokazu Kato from the Nara Institute of Science and Technology in Japan launched ARToolKit, a computer software that could translate real world movement into interactions with virtual objects. ARToolKit was the first consumer-friendly AR software, requiring a handheld device with a camera and an internet connection. This innovation influenced all flash-based AR smartphone

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[128] VR aims to make users feel as though they are in another place by creating a virtual presence through visual, aural and haptic stimuli (Chandler & Munday, 2016b; Isberto, 2018).

apps today, like using filters to modify or enhance a photo or video on Instagram (Ancing, 2020; Isberto, 2018; Carmigniani et. al., 2011).

AR technology created unique opportunities for gaming, particularly mobile gaming. In 2000, Bruce Thomas developed the first outdoor mobile AR game *ARQuake* (Thomas et. al., 2000; Thomas et. al., 2002).

Figure 7. ARQuake: The First Outdoor Mobile AR Game

(Didier, 2021)

Shown in Figure 7, players wore the AR system, which consisted of a laptop in a backpack that was connected to a plastic gun and eyewear. The system had sensors that tracked the players' position using GPS and a camera for vision tracking. Players could move freely in the real world and encounter and shoot monsters, but it was clunky and awkward or unsafe to use in busy outdoor areas (Thomas et. al., 2000; Thomas et. al., 2002; Gu & Duh, 2011; Carmigniani et.al., 2011; Didier, 2021).

In 2003, Adrian Cheok from the National University of Singapore developed a similar style mobile AR game, *Human PacMan*, based on the popular arcade game Pac-Man from the 1980s. Players have to wear a mobile computer (laptop), headset and goggles, which track their movements with GPS receivers and motion sensors (Cheok et. al., 2003; Knight, 2004; McCall et. al., 2011).
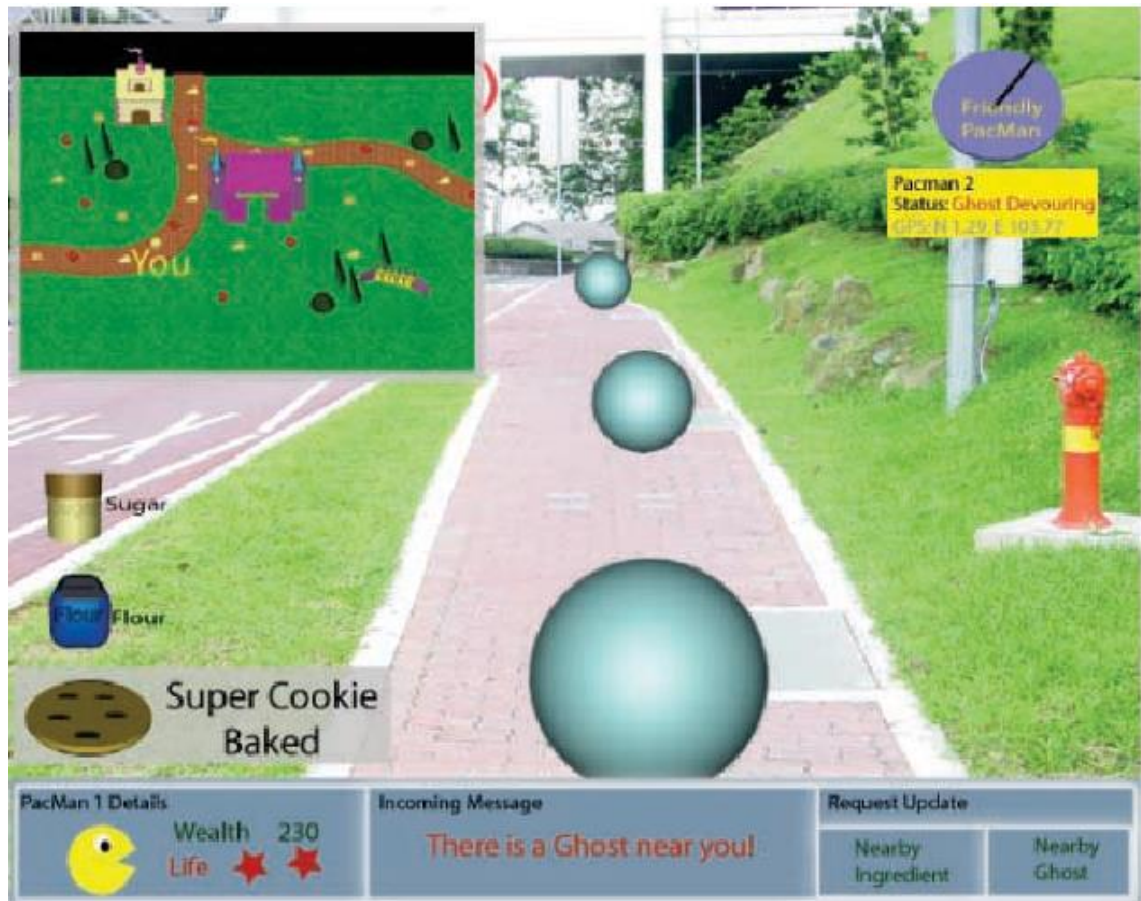
Figure 8. Human PacMan

(Cheok et. al., 2003)

Human PacMan superimposed virtual objects onto city streets and architecture, shown in Figure 8 above. Unlike traditional video games, mobile AR games enable new experiences by expanding beyond the screen-space, incorporating real locations and objects, and depending on players to move around in the real world. The bulkiness and technological problems did not provide a great gaming experience, which meant that more developments were required to create a satisfactory mobile AR gameplay experience (McCall et. al., 2011; Gu & Duh, 2011; Carmigniani et. al., 2011).

Mobile phone technology significantly influenced the development of AR games, making them more practical, efficient and giving the user more intuitive control. In 2004, the first handheld AR game, *AR Soccer*, was released. *AR Soccer* was a smartphone game where players could kick a virtual ball with their real foot into a virtual goalpost. The integration of cameras and GPS with mobile phones became the basis for integrating virtual objects with reality (Gu & Duh, 2011; Carmigniani et.al., 2011). Since then, thousands of AR mobile gaming applications have been developed. The introduction of smartphones created a boom for the mobile gaming industry and revolutionised mobile AR applications, as smartphone cameras and image processing algorithms were continually refined (Gu & Duh, 2011; Carmigniani et. al., 2011). The following chapter will investigate how PoGO players feel about AR and if it actually contributes to a meaningful and enhanced gameplay experience. In addition to smartphone and AR technologies, PoGO was actualised through the development of digital mapping.

6.3.7   Digital Mapping

Digital mapping technologies play a critical role for the overworld landscaping in PoGO.[129] The capacity of smartphones to determine geospatial data and display high quality images paved the way for digital mapping services like Google Maps, which arrived in 2005 (Agar, 2013). Google Maps is the digital evolution of mobile cartography (mobile mapping). Digital cartography, or digital mapping, translates GPS and formats it as a virtual image. John Hanke assisted in the development of Google Maps and Google Earth and is the CEO of Niantic Inc., the company that developed PoGO in collaboration with Nintendo and The Pokémon Company (Hatfield, 2014).

Niantic is a U.S. software company that was initially an internal startup within Google directed by Hanke in 2010.[130] Niantic broke away from Google and became an independent entity in 2015. Niantic initially used Google Maps for its location-based games, with its first venture being a location-based mobile application called *Field Trip*, which ran from 2012 until 2019 (Weinberger, 2016). *Field Trip* acted as "your guide to the cool, hidden, and unique things in the world around you" by showing users locations of potential interest nearby (Nazarian, 2012, para. 1). This was a stepping stone to PoGO, which similarly integrates real-world terrain (roads, streets, grassland

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[129]In video games, overworld refers to an overview of the geographical terrain that players move within, including locations, items and other elements that can be interacted with (Definitions.net, 2020).
[130] Niantic (formerly known as Niantic Labs) is best known for its location-based AR mobile game ventures such as *Ingress*, PoGO and *Harry Potter: Wizards Unite*, with PoGO being the most popular (Pugatschew, 2018; Carpenter, 2019).

and water) with in-game objects such as PokéStops and Gyms, which are mapped to real-world buildings and landmarks.[131]

6.3.8   Ingress

Ingress is an international location-based AR mobile game launched by Niantic in 2013, and was a precursor to PoGO (Weinberger, 2016). *Ingress* is a massive multiplayer gaming application created by Google and Niantic and powered by Google Maps. *Ingress* players choose to be part of one of two teams or 'factions', the Enlightened and the Resistance. Players fight to take over as many portals as possible by arriving at a location and checking in. Portals are locations and landmarks of cultural significance, such as museums, train stations, lighthouses, murals, cafés, restaurants and so on. The gameplay experience has been described as a unique, GPS-enabled 'capture the flag'. Portals are more densely packed in cities and metropolitan areas and sparse in rural areas, reflecting the population of players in various regions. In *Ingress*, players are able to create portals by taking a photo of the location, writing a brief description and submitting it to Niantic for approval. This was Niantic's strategy; crowdfunding a global database of locations that were then directly ported into PoGO as PokéStops or Gyms (Weinberger, 2016).132

The design and experience of PoGO was rooted with *Ingress*, as players were encouraged to tour their local neighbourhoods on foot, observe buildings and monuments with a fresh perspective and uncover hidden nuggets of history (Hatfield, 2014; Andersen, 2014; Frank, 2016a). *Ingress* was thought to be ahead of its time and 'futuristic', as few people understood AR gaming prior to PoGO (Webster, 2017; Carney, 2012). The explorative aspect of *Ingress* has also been compared to Geocaching, because players might have to plan and prepare for their gameplay sessions by attaining resources such as external batteries and chargers for their smartphones (Andersen, 2014). Niantic's CEO Hanke referred to *Ingress* as a 'cult hit'; to his surprise, people began getting tattoos of the team logos—even when the game was in beta—which meant those logos could have changed (cited in Pressman, 2017). *Ingress* was popular, but nowhere near as explosive as PoGO. Between 2013 and 2017, *Ingress* was downloaded over 200 million times, and its players walked over 340 million kilometres (Pressman, 2017). In contrast, PoGO reached over 500 million downloads and its players walked roughly eight billion kilometers in its first six months alone (Roy, 2017a; Russell, 2017; Thier, 2017a).

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[131] A PokéStop or Gym is a physical landmark (statue, lighthouse, café, museum, cemetery), where you can collect items or battle Pokémon in the game if you are at the location (Tassi, 2017d; Elfwine, 2017).
[132] *Ingress* has been described as an exploitative opportunity for Google, as the game encouraged millions of people to share an overwhelming amount of location information (Carney, 2012).

6.3.9   *Pokémon*

PoGO's explosive popularity is thought to be largely due to the Pokémon brand (Villeneuve, 2016; Newzoo, 2016; Harboth & Pape, 2020). Pokémon is a multibillion, multimedia global franchise managed by The Pokémon Company. The Pokémon Company began operating in Japan in 1998, and is responsible for marketing and licensing the Pokémon franchise (The Pokémon Company, 2021; Weinberger, 2016).[133]

Pokémon is a sensational success across multiple media platforms. Pokémon began as a video game series in 1996. The first games were *Pokémon Red*, *Green* and *Blue* for Nintendo's GameBoy. Since then, over 120 Pokémon games have been released across the GameBoy, Nintendo DS, Nintendo Wii and Nintendo Switch gaming systems. The Pokémon anime television series began in 1997 in Japan and continues today. There have been a number of films produced for Pokémon, as well as a manga series.[134] However, gaming is at the core of the Pokémon brand, and PoGO is the most successful of over a dozen smartphone gaming applications for Pokémon. Themes of community, friendship, and collecting, training and battling Pokémon are present throughout the Pokémon franchise (The Pokémon Company, 2020; Miyashita, 2016; Bulbapedia, 2019; Frank, 2016a; Orosz & Zsila, 2019).

There have been multiple instances where Pokémon has entered the mainstream as a fad. The first was the introduction of the GameBoy games, which immediately gained momentum for the franchise. For example, the release of *Pokémon Yellow* in 1998 sold one million copies in its first 10 days. The next faddish wave of Pokémon was when the collectible trading card game (TCG) was released in 1999 and caused a widespread moral panic. Journalist Thomas Sutcliffe (2000) wrote "This isn't just a craze. Pokémon has kidnapped our children" (para. 1). Indeed, Pokémon became so popular that parents were fighting in stores to purchase Pokémon games for their children, kids were being arrested for Pokémon-related assault and church ministers were even burning Pokémon cards as fundamentalists saw the phenomenon as demonic and satanic (Sutcliffe, 2000; Anslow, 2016).

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[133] The Pokémon Company was established through the joint investment of three businesses: video game company Nintendo and video game developers GameFreak and Creatures (The Pokémon Company, 2021; Weinberger, 2016).

[134] Manga refers to Japanese comics or graphic novels (Birch & Hooper, 2013).

One mother in America sued Nintendo because she believed the TCG constituted a form of gambling because rare, high-value cards are randomly distributed in sealed packs (Sutcliffe, 2000). Today, some of the rare Pokémon cards from this era are being sold online for up to US$360 thousand (Jarvis, 2021). One thread on reddit titled 'Stories of Pokémon being banned in schools' has over 250 comments in which people detail their experiences of the TCG and other Pokémon-related products being banned as a result of theft, schoolyard conflict, physical assaults, religious backlash and the promotion of gambling (cuddledpillow, 2015).

Pokémon is symbolic of the historical, religious and cultural roots of Japan. A Pokémon is shorthand for 'pocket monster', which are typically creatures that combine two or more different animals together, and are characterised by elements such as earth, water, fire, ice, grass, ground, flying, psychic, electric, fairy, and so on (Gibson, 2002). Pokémon is an expression about the loss of the natural world, and comes from the Japanese animistic tradition.[135] The origin of Pokémon derives from the childhood hobby of Satoshi Tajiri, who collected bugs, insects and critters near his home in Tokyo, until they all disappeared following the urbanisation of Japan.[136] Tajiri created Pokémon as a response to observing the urban world destroying the rural existence of Japan, to speak to the spirits of those that had gone, and to create this kind of animism for children to enjoy (Miyashita, 2016; Bulbapedia, 2019; Allison, 2006; Gould, 2016). With this knowledge, one way of understanding the AR application PoGO, is not that Pokémon are being projected onto the world, but rather Tajiri is showing you the Pokémon that always existed there.

6.4 Function

Put simply, PoGO is Pokémon in the real world. Like other Pokémon games, players choose to join one of three teams: Instinct (yellow), Mystic (blue), or Valor (red) (Niantic, 2020b). Players catch and battle Pokémon and collect items to progress through the game. PoGO transforms the local environment into a world of gaming resources, where places are made relevant through virtual currency, objects and rewards. PoGO involves a number of in-game currencies, including XP (total points generated through ongoing gameplay), Stardust (used to upgrade Pokémon), Levels (unlocks game features—levels are reached by accumulation of XP), Coins (used to buy

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[135] Animism is the worldview that non-human entities such as animals, plants and inanimate objects, possess a spiritual essence (Miyashita, 2016; Allison, 2006).
[136] Tajiri became a video game developer and is best known for the Pokémon franchise. Tajiri is the founder and current CEO of GameFreak (Gates, 2018).

items, are earned in the game or can be purchased with real money), and Candies (used for evolving and upgrading Pokémon) (Hiwaizi, 2018).

Figure 9. Pokémon GO: Pokémon in the Real World with AR

(Hynes, 2016)

When a Pokémon appears or 'spawns' in the game it is a computer-generated image (CGI). Once a player clicks on the Pokémon, it becomes an AR animation (if the feature is enabled) on the phone screen, shown in Figure 9. Players can tap the Pokémon which activates the phone camera, projecting it onto the real world in front of them. To catch the Pokémon, an animated Pokeball will appear at the base of the screen, which users then swipe toward the Pokémon. The immersive play is a compelling element of PoGO; players must simultaneously navigate both a virtual world and the physical world.

Like geocaching, PoGO requires players to move. The app uses geolocation, a GPS tracking method, to track users on a map as they walk around, using data from Open Street Maps (previously Google Maps that utilised data from *Ingress*) to provide the geographic landscape. This is what makes PoGO a location-based game. Hotels, libraries, museums, and other locations are marked as Gyms in the game, where players can battle and claim ownership. PokéStops, which are often landmarks, artworks, cafés, or restaurants are where players can walk to and collect items for the game. In-game items include Pokeballs (for catching Pokémon), incense and lures

(for luring Pokémon to your location), berries (for giving to Pokémon to make them easier to catch), and incubators (required to hatch Pokémon from eggs). Eggs can also be collected, but not as often, and are used for hatching an unknown Pokémon after travelling certain distances. Eggs range between two and 15 kilometres; the longer the distance, the better chance of hatching a rare Pokémon.

PoGO is free-to-play; the more you walk, and more places you visit, the more you are rewarded and the faster you progress. In this way, PoGO falls into the exergame genre; the game promotes physical activity by incentivising players by the number of places they visit and their distance travelled. PoGO offers microtransactions for players to purchase in-game currency, which are used to acquire more in-game items and can help players advance to higher levels faster. However, players who make purchases still have to move, because you cannot buy Pokémon or eggs, you must discover Pokémon in the wild or hatch them by walking (Hiwaizi, 2018).[137]

Niantic CEO Hanke initially revealed that the design goals of PoGO were centered around (1) getting people to exercise, which is a characteristic of exergames, (2) to have adventures with new and old friends, similar to the phenomenon of Geocaching that encourages outdoor adventure, but it also reflects the Pokémon brand that is centered around community and friendship and (3) to "see the world with new eyes", which refers to the innovative integration of AR technology that allows players to experience Pokémon in a new way (cited in Weinberger, 2016, para. 18). All of these things come together to create a unique gaming experience. Indeed, PoGO opened up a new genre of mobile gaming that synthesises physical activity, digital mapping and AR with a pop culture phenomenon (McDermott, 2016; Gould, 2016).

6.5 Trajectory

PoGO was immediately popular and even outdid previous Pokémon crazes (Haigh, 2017). The initial release of PoGO has been referred to an explosive cultural moment, as it rapidly acquired mass appeal (Hjorth & Richardson, 2017; Stewart, 2017; Sung-won, 2017). The rapid response rate and scale of PoGO's impact is impressive given there was no major marketing campaign to promote the game, its popularity was driven by nostalgic reactions and word-of-mouth (Scott, 2016; Gordon, 2016). It was a new kind of mobile game, meshed with a globally recognisable

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[137] In Pokémon games, a wild Pokémon refers to Pokémon that are not yet owned by anyone, which means they are available for you to catch.

franchise that not only attracted active Pokémon fans but saw nostalgic—and crazed—reactions from all kinds of people around the world (Gould, 2016; Gordon, 2016; Klein, 2016; McDermott, 2016; Newzoo, 2016). The immediate surge in popularity was covered by many media outlets and was referred to as "Pokémon GO Mania" or "Pokemania" by a number of journalists, slogans that are reminiscent of the late 90s and early 2000s (Wells, 2016; Eordogh, 2016; Tam, 2016; Moore, 2000).

6.5.1   *Initial Downloads & Revenue*

PoGO is regarded as the most successful mobile game launch in terms of downloads and revenue earned in its introductory months. In its first month, PoGO topped app store charts worldwide, accruing 130 million downloads. In the U.S., PoGO was the top grossing app in Apple's iTunes app store for 74 days straight following its release in July 2016 (Pressman, 2017; Scipioni, 2018). Despite staggered launch dates around the globe, PoGO broke world records, becoming the fastest mobile game to gross over US$100 million in 20 days, and US$600 million in its first 90 days. By January 2017 PoGO had reached US$1 billion in revenue, even without a launch in the world's largest smartphone market, China (Roy, 2017a; Russell, 2017; Thier, 2017a; Clark, 2018).[138]

6.5.2   *Decline of Players*

Following PoGO's initial peak, there was a rapid decline of players. This decline of players—and thus revenue and downloads—contributed to the perception that PoGO was a fad (Mathew, 2016; Lee, 2016). The number of daily active users is a key indicator of PoGO's popularity.[139] PoGO's daily active users peaked at approximately 45 million on 21 July 2016, declining to 30 million just one month later, then to five million in April 2017.[140] Waning interest is not only reflected in the reduction of daily active users, but also the deceleration of daily revenue and downloads. At its peak, PoGO was pulling in US$18 million revenue per day, coming down to approximately $2 million per day in February 2017 (Thier, 2017a; Iqbal, 2021b). Daily downloads slid from 27 million in July 2016 to 700 thousand by September 2016 (Thier, 2017a).

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[138] In 2016, PoGO made around US$950 million, even though it didn't begin launching around the world until July (Hoffer, 2018; Thier, 2017a).

[139] The number of daily active users refers to how many individual users open the PoGO app on a daily basis.

[140] It is estimated that one in three Australians over the age of 18—approximately 4.9 million people—were playing PoGO in its first month (Smith, 2020).

The dramatic decline of players was global, and has been attributed to ongoing glitches, server problems, monotonous mechanics, Niantic's poor communication with its user base, the removal of popular features, as well as its lack of a clear vision to capitalise quickly (Iqbal, 2020; Hjorth & Richardson, 2017). Niantic faced waves of criticism from PoGO players and media outlets for the company's lack of communication, as many players reached out via Twitter to request resolutions to ongoing connectivity issues and to express dissatisfaction with the in-game map, battling and the lack of a trading feature (Thier, 2017b; Tassi, 2017a; 2017c; Luces, 2017). The dwindling user base is also believed to be a result of younger demographics being highly sensitive to trends and therefore losing interest easily, as they made up a large portion of PoGO players in 2016 and 2017 (Sung-won, 2017).[141] The decline of PoGO players was perhaps the result of novelty being lost in addition to the inability to trade Pokémon and the removal of a Pokémon tracking feature, which were recurring critiques (Tassi, 2017b; 2017c; Frank, 2018).[142] However, the decline of PoGO players may have been inevitable and a result of people playing in an unsustainable way to begin with (Iqbal, 2020). Freelance writer on technology trends Mansoor Iqbal (2020) describes PoGO's trajectory:

> Since the initial crash, however, Niantic has shown that it is possible to cultivate long-term value in a seeming fad, by listening carefully and catering to the needs of your community. Pokémon GO accordingly has brought in increasing amounts of revenue every year since 2017. The app, then, has two stories: one of initial mega hype, then one of steady, organic and, dare we say, sustainable growth? (para 8).

Niantic has attempted to sustain interest in various ways. This included releasing new generations of Pokémon and implementing in-game events for real-world holidays, such as Valentines Day and Easter, a strategy employed by many mobile gaming app developers.[143] It was anticipated that these updates would lead to a resurgence of players and bring back hype for the game that was

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[141] Over one third of PoGO players in 2016 were aged between 16 and 25, and 78 per cent of players were between 16 and 35. In early 2017, media analytics company Comscore reported that 60 per cent of PoGO players were aged 18 and 34 (Iqbal, 2020).

[142] Being able to trade Pokémon in PoGO was a highly anticipated feature, arriving two years after its initial launch in July 2018 (Frank, 2018).

[143] Tassi (2017b; 2017c) observed that the second generation of Pokémon was not the massive expansion people were expecting. PoGO saw a 50 per cent increase in players during the Gen 2 launch, putting PoGO back on top of the Top Grossing App charts. However, it slid back down the list after only one week (Tassi, 2017b).

seen in the beginning, but they did not (Yadav, 2017; Sung-won, 2017; Haigh, 2017; Tassi, 2017b; Tassi, 2017c; Butao, 2017).[144] Luces (2017) and Tassi (2017a) reported that lack of creativity for in-game events led to a dying PoGO community. However, reports of PoGO's death were premature.

6.5.3   *Player Retention*

Over time, Niantic's understanding of how they could retain an active user base and achieve sustainable growth began to crystallise. Technology writer Mathew (2016) and journalist Lee (2016) initially claimed PoGO was a fad, but a new narrative emerged as Niantic began addressing player feedback.

The introduction of raids and community days have been particularly significant for retaining players. In June 2017, the battling system in PoGO was revised by including 'raids'.[145] Raids are a type of in-game battle that requires collaboration with other PoGO players to take down and capture Pokémon (including Legendary Pokémon, which typically do not appear in the wild), which are available for a limited amount of time. The social aspect of raids has made the battling experience more enjoyable thereby working to retain player interest and increase PoGO's revenue (Hoffer, 2018).[146] In January 2018, Niantic introduced Community Day, which features special Pokémon each month. Community days are worldwide events dedicated to celebrating the PoGO community, whereby players can gather at local hotspots to capture a special Pokémon that will only be available for a few hours (Luces, 2018). Raids, community days, reimplementing the Pokémon tracking feature, introducing the ability to trade Pokémon and addition of a streak feature—whereby players are rewarded for continuous play—have helped revive PoGO's popularity to a significant extent.

Despite the initial downturn, PoGO has one of the highest rates of daily users in the mobile gaming space with an estimate of six million in 2021 (Iqbal, 2021b; ActivePlayer.io, 2021). In March 2019, over two and a half years after its release, PoGO had one million daily players. By October

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[144] Reporter Phil Haigh (2017) speculated "The initial explosion of interest in Pokémon GO has simmered down, but we could be about to see a second blast with the introduction of a load of new Pokémon to the game" (para. 1). Sung-won (2017) also noted "There are expectations that the update will refuel the popularity of the mobile game worldwide" (para. 14).

[145] The gym system was one of the most criticised aspects of PoGO, as the battle experience was initially extremely limited and needed to be reworked (Tassi, 2017d; Elfwine, 2017).

[146] To participate in a Raid, players need a Raid Pass, which they can acquire in-game from a Gym. However, players can only hold one Raid Pass at a time; Raid Passes are also available for purchase in the app, and has become a significant money-making feature for PoGO (Hoffer, 2018).

2019, PoGO surpassed US\$3 billion in revenue, averaging US\$5.60 in revenue per download, even though it can be played entirely for free (Nelson, 2019).[147] This suggests that after PoGO's initial peak and decline, serious and casual players integrated the game into their lives in a more sustainable way, which will be investigated in the following chapter.

The COVID-19 pandemic critically challenged the essence of PoGO, because people all over the world were experiencing lock-downs and required to stay at home. Niantic adjusted the game so that it would be more playable while players are stationary (Niantic, 2020a). One major change was the introduction of remote raids. Traditional raids require players to gather at a physical location to battle, remote raids allow this to be done with players in different locations, even if they are in different countries (Byford, 2020). In addition, Niantic rolled out various bonuses that made the game more playable remotely. For example, incense effectiveness would be increased at certain times, which draws more Pokémon to your location (The Pokémon GO Team, 2020). These changes were critical to sustain interest, and perhaps encouraged others to download the app to combat social isolation. This was successful, with PoGO reaching US\$1.23 billion in revenue in 2020—higher than its initial peak in 2016—and an estimated 166 million monthly users, which is up from its low of 65 million in 2017 (Iqbal, 2021b).

6.6   Why is Pokémon GO Perceived as Disruptive?

PoGO was perceived as disruptive in different ways by different people, which will be discussed in detail in this section. During its launch, media outlets persistently referred to PoGO as disruptive (Straw, 2016; Raegan, 2016; Benoy, 2016; Linkner, 2016). However, professionals in business, finance and technology typically use the term as shorthand for talking about PoGO as a disruptive technology. As noted in Chapter 2, a disruptive technology is perceived as a product or service based on a new technology that significantly changes the ways industries and businesses operate, expands consumer markets and reshapes consumer behaviours. PoGO fits into this framework in two ways. First, PoGO mainstreamed AR technology thereby opening up a new genre of mobile games and making AR more prominent in other industries. Second, at a scale never seen before, PoGO influenced the behaviour of mobile games consumers by getting them to move more. This also had implications for health, economic spending and the way brick-and-mortar businesses advertised themselves.

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[147] In 2019, PoGO generated approximately US\$110 million in August alone, which has been the highest earning month since September 2016 (Nelson, 2019).

Conversely, for journalists and bloggers, PoGO earned the label of disruption merely in an attempt to make sense of its arrival and the way that "the general public lost their damn minds" (Louis, 2018, para. 1). The use of disruption in this way reflects the everyday sense of the word; confusion and disorder. Thousands of people gathered in public places and were roaming their neighbourhoods, which created social, environmental and political challenges such as disturbed flora and fauna, damaged grasslands, excessive littering, increased noise pollution, trespassing, traffic jams, road accidents, assaults and robberies (Lemon, 2016; Fitzgerald, 2016; Griffin, 2016; Goodman & Schriever, 2016; Louis, 2018). This section will help to discern how much of this was hype, and how much of it had truly disruptive or game-changing implications for people, industries and governments.

6.6.1   Augmented Reality

PoGO launched AR technology into the mobile gaming stratosphere and quickly became a powerful influence on app developers, contributing to the perception of PoGO as a disruptive technology (Destreza, 2017; Louis, 2018). As we have seen in Figure 9 earlier in this chapter, PoGO uses AR so that players can see Pokémon—a virtual object—in the real world (Clark, 2018). IT expert and emerging technology writer Dina Destreza (2017) believes that the introduction of PoGO represents what mobile AR is capable of. Despite other AR mobile games on the market at the time, such as *Shadow Cities* and *Ingress*, PoGO has been considered the most unique and exciting gaming experience (Destreza, 2017).[148] Technology reporter Alex Heath (2017) notes that "Executives from companies like Apple and Facebook have credited 'Pokémon Go' for being the first mainstream game to popularise augmented reality" (para. 4).

Indeed, no other AR mobile game has had as much mass appeal or been so widely adopted as PoGO. PoGO has been revered for being able to successfully implement AR into the gaming experience without overbearing it, an important moment in the history of AR mobile games (Destreza, 2017). PoGO was groundbreaking because it was the first case that has generated a widespread use of AR technology by people of all ages and demographics. In the first month of PoGO, technology entrepreneur John Straw (2016) observed, "Pokémon GO will disrupt more than just the way we game. It has thrown AR into the spotlight, creating countless opportunities for the wider adoption of AR" (para. 6).

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[148] *Shadow Cities* is a location-based AR mobile game that was released on the Apple App Store in 2010 (Heater, 2011).

PoGO has been credited for mainstreaming AR, even though there have been other smartphone apps to use the technology. Popular social networking app Snapchat is one example. Snapchat has a lenses feature that allows users to superimpose different filters to their real-time photos, as well as being able to swap faces with other people. A similar tool is used by L'Oreal in their Makeup Genius app, so that users can try their different makeup products via a live camera view of their face. Despite this, PoGO is still renowned for increasing the prominence of AR across various markets. In 2017, the year after PoGO's introduction, businesses invested US$2.5 billion in AR development for their services. For example, eyewear brands now offer virtual try-ons for their products, and IKEA has implemented AR in their app, allowing people to visualise how furniture might look in their home (Clark, 2018; McDermott, 2016; Destreza, 2017; Louis, 2018). Indeed, PoGO raised awareness for AR technology beyond mobile gaming apps.

PoGO triggered a new evolution of AR mobile apps, as game developers are utilising AR technology to create mainstream games and engage casual players (Destreza, 2017). The effective execution of AR in PoGO is a key reason why the game has been perceived as a disruptive technology, because it challenged standards for the mobile gaming market (Clark, 2018). Niantic CEO Hanke predicts that games are at the leading edge of the future of AR, as they are the ideal medium for experimenting with the technology.[149] Hanke explains that this is because gamers are more willing to tolerate glitches and technology imperfections than consumers in other markets (cited in Campbell, 2018; Boyle, 2018).[150]

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[149] Niantic CEO John Hanke is interested in developing mainstream AR experiences. In 2018, Niantic acquired AR API developer Escher Reality to bolster its own AR endeavours, as well as being able to license AR platforms to other developers. In addition, Hanke has invested heavily in the AR cloud, in which shared AR experiences are tied to specific locations (Francis, 2018; Campbell, 2018; Boyle, 2018).
[150] Because games are increasingly online and service-based, issues are typically resolved during regular updates (Boyle, 2018).
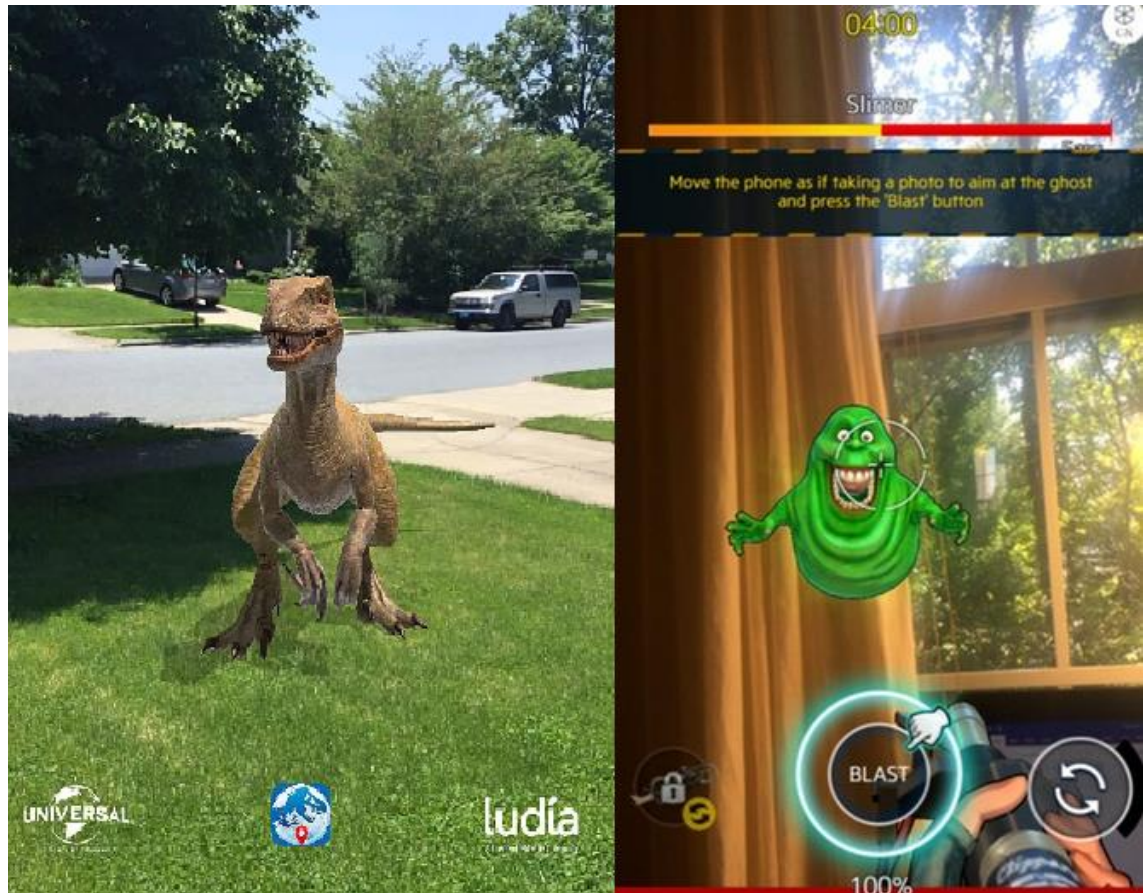
Figure 10. Jurassic World Alive & Ghostbusters World

(Tylwalk, 2018; Peters, 2018)

PoGO initiated a string of AR games based on entertainment franchises, such as *Jurassic World Alive* and *Ghostbusters World*, which emulate PoGO's gameplay experience (see Figure 10). *Jurassic World Alive* by Ludia and Universal Pictures was launched in March 2018, and Creative Lab and Columbia Pictures released *Ghostbusters World* in October 2018. Of course, these games are variegated, but they do draw on PoGO's model; brand nostalgia, AR and location-based adventure. However, neither have been as popular as PoGO (Garst, 2018; Fossett, 2018; Spangler, 2018).

Niantic's experience developing PoGO led them to release *Harry Potter: Wizards Unite*, which again utilises AR and digital mapping technology. PoGO was so successful that Niantic raised US$200 million in funding for the new AR game, which launched in June 2019 (Carpenter, 2019; Heath, 2017). *Harry Potter: Wizards Unite* is thought to be the accumulation of everything Niantic has been working on since *Ingress*, and built up their expertise with PoGO. Niantic CEO Hanke reported that, thanks to lessons learnt from PoGO, the company is much better positioned to launch another successful AR game. Hanke noted that Niantic is now more aware of the issues

that come with public gameplay, including governmental policies and regulations. Hanke reported that they are creating more efficient ways for people to deal with location-based issues, because in-game hotspots have caused real-world problems (Pugatschew, 2018).

6.6.2 Crowds

Large crowds of people gathering in public places had various implications that contributed to the label of PoGO as disruptive, not in the business sense, in the everyday sense. Players hunting for Pokémon led to streets, parks and other public areas being densely packed, causing a number of issues. For context, these large crowds of PoGO players were mostly confined to urban areas, because this is where PokéStops and Pokémon usually appear. Within one week of the launch of PoGO in July 2016, the Sydney suburb Rhodes was referred to a site of carnage by local residents, as hundreds and sometimes thousands of PoGO players wandered around like 'zombies' (Taylor & Hayden, 2016; Te, 2016; Butler, 2016). While this may seem like journalistic hype, the photographs shown in this section reveal otherwise.

Figure 11. Pokémon GO Players Swarm the Suburb of Rhodes, Sydney

(Te, 2016; Butler, 2016)

Rhodes was transformed from quiet suburb to absolute chaos due to the mass of people catching Pokémon at PokéStops in the vicinity (see Figure 11). Residents felt as though the once peaceful space was now under siege, with incessant car hooting and large amounts of litter in the public areas of this residential suburb. The massive influx of people resulted in excessive littering, blocked driveways, dangerous traffic congestion, numerous noise complaints and over 250 parking tickets issued by police (Lemon, 2016; Fitzgerald, 2016; Te, 2016). The traffic was so severe it even caused difficulties for a fire brigade trying to respond to an apartment that was on fire (Te, 2016).

Nearby residents were so angered by the disruptions caused they began throwing water bombs at players on some occasions (Barr, 2016). Residents wrote to the local council complaining about the disturbances caused by the game, which included people jumping fences, break-ins and trespassing on private property, however no action was taken. Rhodes residents then mobilised through a Facebook group and started a petition, to send directly to Niantic, and as a result PokéStops were removed without explanation or warning from the company (Taylor & Hayden, 2016; Barr, 2016; Wicks, 2016). The removal of PokéStops or Gyms reestablishes the existing regulations and sociocultural expectations of the space (Whigham, 2016).

Crowds were causing problems in other countries too, with a similar event occurring in the United States. PoGO faced a ban in Milwaukee County due to damages and disturbances caused by players in public locations. The issue was raised during the launch of the game in July 2016. Large crowds gathered at Milwaukee's Lake Park to play PoGO, producing increased litter, after-hours violations, unauthorised vendors, traffic congestion, traffic violations, trampled grass and related concerns regarding sensitive sites of flora and fauna. As a result, the park required enhanced security oversight and clean up. The Milwaukee County Board of Supervisors requested that location-based AR games must seek approval from the local government and acquire a permit to be available in public spaces (Wright, 2017). In both the Rhodes and Milwaukee example, collective action was required in order to respond to the disruptions caused by PoGO.

Figure 12. Pokémon GO Causes Stampede in Taiwan

(Cho, 2016)

The visibility of PoGO players—because they have to play outside—is perhaps what made the game so astounding. PoGO players actually caused stampedes. Shown in Figure 12, PoGO caused a stampede in the district of Beitou in Taiwan on 21 August 2016, when thousands of people moved from a park to a road to catch a Snorlax (Cho, 2016; Ashcraft, 2016a). Another stampede occurred in Odaiba, Tokyo, Japan on 18 September 2016. Thousands of residents were trying to catch a Lapras, causing an enormous traffic jam (Ashcraft, 2016b). In contrast to the academic literature on PoGO that is centered around the health benefits of the game, media outlets labelled PoGO as disruptive because of this manic, fanatic and unusual behaviour. Indeed, the large crowds reflected PoGO's mass adoption and was striking because no other mobile game had ever achieved this to the same scale (Wells, 2016; Eordogh, 2016; Tam, 2016). This historical moment will be explored in the following chapter in terms of the user experience.

6.6.3   Economic spending

PoGO was labelled a disruptive technology by the industry because it reshaped consumer behaviours by getting them to physically visit places and use services they otherwise might not have, and introduced a new way for brick-and-mortar sites to attract business:

> For much of the last decade, brick-and-mortar stores have competed with digital retailers. The digital has challenged the physical as the preferred point of sale when it comes to book stores, comic book shops, clothing retailers, and so on. Pokémon GO upends that relationship; it lets physical stores use the digital to attract people to the physical store. I expect that, even if Pokémon GO is a passing fad, we will see increasingly interesting ways brick-and-mortar sites use the affordances of hybrid spaces to attract people (Frith, 2017, p. 53).

Stores, cafés and restaurants experienced considerable benefits from PoGO, as a result of nearby PokéStops or being marked as PokéStops themselves, bringing a concomitant increase of foot traffic. Washington D.C saw thousands of people visiting the National Mall and Memorial Parks on the weekend following Pokémon GO's release (Carlton, 2016). Small museums such as the McNay Art Museum in San Antonio, Texas, and the Morikami Museum and Japanese Gardens in Boca Raton, Florida reported increased attendance of their exhibits as a result of PokéStops placed there (Ekstein, 2016).

Figure 13. The Art Institute of Chicago (2016) Uses Pokémon GO to Promote Exhibition

PoGO's popularity had a significant impact on economic spending during its peak, which influenced the ways businesses advertised themselves. Shown in Figure 13, the Art Institute of Chicago actively promoted its exhibits to PoGO players. People in the private transport industry began offering independent driving tours, which took PoGO players around to in-game hotspots. PoGO also inspired bar crawls in New York and Colorado (Bobb, 2016).

Indeed, many businesses took advantage of PoGO and embraced it as a marketing strategy (Clark, 2018). In the United States, wireless provider T-Mobile offered one year of free data for PoGO sessions (Cohan, 2016). Many establishments even purchased lures from the game—which means more Pokémon will appear in that place—attracting more players to their stores and venues (Shields & Perlberg, 2016, Shaw, 2016; Ekstein, 2016). Crowdsourcing platform Yelp, which publishes reviews and recommendations of local businesses, added a filter to the service so users could see what businesses have a PokéStop nearby (Grubb, 2016). PoGO's impact on economic spending may fluctuate as its number of players do, but the game remains a profound example of how businesses can attract people through the affordances of a digital space.

6.6.4   *Distraction & Harm*

PoGO has been disruptive in the everyday sense because it can cause players to be distracted, leading to crime, injury and even death. In the United Kingdom alone, over 290 police incidents were reported within the first month (Mullen, 2016). In Japan, the first incident occurred within hours of the game being released, when a student at Kindai University in Osaka fell down the stairs and required emergency services due to the large amount of blood lost (Ho, 2016). A website called 'Pokémon GO Death Tracker' even emerged, with a rolling tally of PoGO related deaths and injuries (Pokémon GO Death Tracker, 2021).[151]

News outlets around the world have reported people walking off cliffs, various injuries, road accidents and fatalities as a result of PoGO player negligence (Griffin, 2016; Goodman & Schriever, 2016; Louis, 2018). This created a powerful narrative that PoGO players are unaware, untamed fanatics or simply 'crazy' (Soble, 2016). PoGO also became entangled in existing crimes. By playing outside, players are at risk of robbery and assault, with reports of players being robbed at gunpoint while out Pokémon hunting (Griffin, 2016; Goodman & Schriever, 2016; Louis, 2018). Players are even at risk of homicide. The first reported death relating to PoGO was an eighteen-year-old boy in Chiquimula, Guatemala who was shot and killed while out playing the game late at night on 20 July 2016 (Pokémon GO Death Tracker, 2021). In August 2016 on an Adelaide beach in Australia, two men were left with serious head injuries after being assaulted and robbed late at night, causing local police to set up day and night patrols (Goodman & Schriever, 2016).

Consequently, governments and institutions around the world expressed concerns for public safety. In Egypt, PoGO was described as 'harmful mania' by Al Azhar University in Cairo (cited in Stanglin, 2016). The Gujarat High Court in India issued a notice to Niantic, on the grounds of "posing danger to public safety" (Khan, 2016, para. 1). The Vietnamese Ministry of Information and Communications considered the negative impact of the game on citizens, leading to a nationwide ban. This was due to the multitude of people on the street at night, as well as people walking and driving without paying attention to their surroundings (Nguyen, 2016).

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[151] As of August 2021, 22 PoGO related deaths have been reported on (Pokémon GO Death Tracker, 2021).

Despite the game requiring players to walk, people played while driving, contributing to the preexisting issue of drivers being distracted by their mobile devices. PoGO players on the move are not just game participants but are often pedestrians and sometimes operators of a vehicle. Distracted drivers (and pedestrians) increase the risk of accidents as they are not paying attention to the road. In its first month, there were 79 PoGO related street accidents recorded in the United States. Indeed, police services around the world reported an increase in road accidents during the first two years of PoGO (Clark, 2018). One incident involving PoGO included a distracted truck driver in Japan playing the game, killing one woman and seriously injuring another, within its first month of release (Ho, 2016; Pokémon GO Death Tracker, 2021).

Figure 14. NSW Police Force Caution Pokémon GO Players to Remain Attentive[152]

Warnings were issued to citizens in various countries from police regarding inattentive driving in relation to PoGO (Butson, 2016; Gilbert, 2016). In Australia, NSW police warned PoGO players through their Facebook page (See Figure 14). A number of studies have focussed on the correlation between PoGO and the rising number of traffic accidents (Sachiko, 2018; Faccio & McConnell, 2018). The U.S. National Highway Traffic Safety Administration noted that traffic fatalities have been rising since 2011, increasing by 25 per cent in 2016—the year PoGO was released. The prevalence of smartphone usage has been identified as a primary cause for the

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[152] These images were screenshots taken from posts on Facebook (NSW Police Force, 2016a; 2016b; 2016c).

increase in road accidents. However, in 2016, road accidents were 26.5 per cent more likely to occur within 100 metres of a PokéStop (Faccio & McConnell, 2018). Furthermore, the decline of PoGO's daily players coincided with the reduction of traffic accidents in the United States. Thus, while general smartphone usage is a problem, there is a case for viewing PoGO as a contributor to driver distraction (Faccio & McConnell, 2018).

6.6.5   Trespassing & Controversial Places

PoGO caused disruption and was heavily criticised for the placing of gyms and PokéStops at certain locations. Confusion and disorder ensued as PoGO reimagined locations as gameplay sites, prompting people to trespass or flout the sociocultural expectations of that space. In Bosnia, players were warned to keep out of minefields leftover from the 1990s Bosnian War (BBC, 2016). Dutch company Prorail had issues with players entering their railway tracks to catch Pokémon, and users were told to stop congregating outside fire stations as it was disturbing for staff (Middleton, 2016). During the 2016 constitutional referendum polling in Thailand, PoGO players were asked not to enter polling stations. The Thai National Broadcasting and Communications Commission then asked Niantic to remove Pokémon and PokéStops from private property locations, government facilities, historic and religious sites, as well as dangerous narrow footpaths and rivers (Ono, 2016; Bangkok Post, 2016). In Russia, a 21 year old video blogger, Ruslan Sokolovski was arrested on 3 September 2016 and kept in police custody for two months after playing PoGO in the Church of All Saints in Yekaterinburg, facing five years in prison for blasphemy (Meduza, 2016).

In-game PokéStops and Gyms have been located at other sensitive places such as Auschwitz-Birkenau State Museum, the U.S. Holocaust Memorial Museum, the National September 11 Memorial & Museum, Arlington National Cemetery, the ANZAC War Memorial, and Hiroshima Peace Memorial Park (Velloso & Carter, 2016; Phillips, 2016; Chan, 2016). Proprietors responded that playing PoGO is disrespectful and inappropriate on their sites (Friedman, 2016). Niantic therefore removed content from some of these areas following public outcry (Mulkerin, 2016).

The placement of PokéStops and Gyms was disruptive for residential areas as well. Many citizens assume that because they own their property, they also control the virtual space, which is not the case. Lawyer Brian Wassom who specialises in AR related incidents asserts that land rights only apply if something or someone has been physically present on the property (cited in Taylor & Hayden, 2016). Boon Sheridan, a U.S. Massachusetts resident, posed an interesting question

following the appearance of her home, previously a church, as a Pokémon gym in the game. Sheridan tweeted in July 2016, "Does having a gym layered on my house enhance or detract from my home's value?", adding that the consistent frequency of people walking or driving up to his home, lingering, then moving on could easily make his house seem like one of a drug dealer (Sheridan, 2016, tweet). PoGO has highlighted that the distinction between the virtual and physical world is becoming increasingly blurred and uncertain. The intersection between property law and virtual spaces is unclear, and the rights of property owners are uncertain when digital objects appear on their land.

Niantic's CEO Hanke spoke openly about the trials and tribulations of the application relating to the co-location of play. PoGO made Niantic more aware of government policies and regulations with regard to public locations, and according to the company they have since built up their expertise for dealing with troubling situations, ensuring that "in-game hotspots that cause real-world problems can be removed or changed" (cited in Pugatschew, 2018).

6.7   Summary

This chapter provided a comprehensive history of how PoGO came into being by looking at the full spectrum of antecendent technologies and consumer pleasures it built upon. This detailed account is not only necessary knowledge building for understanding various dimensions of PoGO, but also demonstrates Nintendo's early interest in exergaming and is helpful for understanding why PoGO was a game changer; the first of its kind that combined all of these elements and be adopted at a mass scale. Reviewing these elements orients our understanding of the associated ideas, themes, theories and criticisms of PoGO that characterise the user experience that will be explored in the following chapter.

PoGO launched in July 2016 in Australia and was an important moment for the development of mobile gaming and mobile AR (McDermott, 2016; Gould, 2016; Gordon, 2016; Klein, 2016; Destreza, 2017; Louis, 2018). The combination of AR and smartphone technology created unique opportunities for mobile gaming, by making it more practical and efficient, providing players with more intuitive control (Destreza, 2017; Francis, 2018; Campbell, 2018; Boyle, 2018). Like geocaching, PoGO is supported by GPS and mapping tools, as well as a community that is motivated for outdoor adventure (Toth, 2018). PoGO represents a new strand of the exergaming genre, whereby movement is tracked via location rather than motion sensors (Klein & Simmers, 2009). PoGO made headlines due to its explosive popularity, and broke a number of revenue and

download records for mobile gaming applications (Roy, 2017a; Russell, 2017; Thier, 2017a; Luna, 2017; Clark, 2018). Despite PoGO's daily active users instantly peaking and rapidly declining, PoGO is still a very popular game, with an estimated six million daily players in 2021 (Iqbal, 2021b; ActivePlayer.io, 2021). Reviewing these elements help to better understand why PoGO was innovative and historically significant.

PoGO has been labelled as disruptive, but it has meant different things to different people (Straw, 2016; Raegan, 2016; Benoy, 2016; Linkner, 2016). Professionals in business, finance and technology typically use the term as shorthand for talking about how PoGO mainstreamed AR technology thereby opening up a new genre of mobile games and making AR more prominent in other industries (Heath, 2017; Destreza, 2017; Louis, 2018). Conversely, PoGO earned the label of disruption in the everyday sense—to denote confusion and disorder—from journalists and bloggers who merely attempted to make sense of the phenomenon (Straw, 2016; Raegan, 2016; Benoy, 2016; Linkner, 2016). In this way, disruption has referred to the chaos caused by thousands of people gathering in public places, which created social and environmental challenges (Lemon, 2016; Fitzgerald, 2016; Te, 2016; Wells, 2016; Eordogh, 2016; Tam, 2016; Griffin, 2016; Goodman & Schriever, 2016; Louis, 2018).

Armed with this context, the following chapter continues to build a better understanding of this technology that has been perceived as disruptive by analysing the user experience of 14 PoGO players using the D-E Model.

7
Experiencing Pokémon GO

7.1 Introduction

This chapter presents an analysis and discussion of the user experience of *Pokémon GO* (PoGO) in Australia. PoGO has been perceived as a disruptive technology due to its innovative design and initiation of a global craze (Straw, 2016; Raegan, 2016; Benoy, 2016; Linkner, 2016). However, there is no clear picture regarding the user experience of PoGO in Australia within the framework of disruption. PoGO players participate in a hybrid reality as they are required to move through the physical world and engage with virtual objects. Drawing on interviews with 14 PoGO players in Wollongong, Australia, this chapter investigates what the user experience of PoGO actually looks like. Participants were interviewed between December 2016 and May 2017, and the sample included seven men and seven women, of which the youngest was 18 and the eldest was 40. I walked along with four participants from this sample—two men and two women—between June and August 2017.

This chapter organises participants' experiences around three key themes. The first key theme, 'A Cultural Moment', addresses the initial explosive period of PoGO following its arrival in Australia. Most notably, participants described how nostalgia for the Pokémon brand drove their gameplay more than the AR component of the innovative mobile game. Participants felt as though they were part of a cultural moment as it seemed everyone around them was playing PoGO, and they experienced a sense of social connectedness in this new and unusual context. The second key theme, 'Outdoor Exploration', acknowledges how PoGO did sometimes cause participants to be distracted, but also reveals how it made them more aware and connected to their local neighbourhoods and cities. In addition, playing outdoors led some participants to experience a fear of judgement, particularly beyond PoGO's initial arrival, because they felt the game was silly or no longer trending. Finally, the key theme 'Integrated Play' captures how PoGO has been integrated into participants' daily life over time, and its impact on their health and wellbeing. In particular, this theme illustrates the role of PoGO in motivating participants to be more physically active and modify their daily habits up to a year after the game's introduction.

To address the primary research question, 'how can we better understand the user experience of technologies that have been perceived as disruptive?' I discuss my findings using the Disruption-Experience Model (D-E Model). The D-E Model involves three interlinking concepts: stabilisation, which is a sustaining experience whereby thoughts, feelings and practices are reinforced; destabilisation, which is a dysfunctional experience whereby thoughts, feelings and practices are undermined; and transformation, which is a novel experience whereby thoughts, feelings and practices are dramatically shifting. The purpose of the model, and this chapter, is to map out how PoGO is experienced by Australian users while providing some nuance to the discourse around disruptive technologies.

7.2 A Cultural Moment

The established themes of community and friendship in Pokémon games and the franchise's history of fads and position in popular culture, help to understand why PoGO was experienced as a meaningful cultural moment. It was widely reported that this was due to nostalgic reactions and the implementation of AR technology to experience Pokémon 'in the real world' (Scott, 2016; Gordon, 2016; Hjorth & Richardson, 2017; Stewart, 2017). My findings suggest that nostalgia was certainly a factor, yet the AR component was not the drawing card that the press and industry assumed it would be, with interest fading quickly. The phenomenon itself was a major attraction, whereby participants felt as though they were a part of something meaningful and historic. In particular, participants were enthralled by the sense of inclusivity and unity among the high volume of people taking to the streets to play. However, this left rural players feeling vexed as they were not able to experience PoGO in this way.

7.2.1 Pokémon in the Real World

Since the late 90s, the world of Pokémon has attracted millions of fans, targeting children and adolescents (Orosz & Zsila, 2019). Despite building on the legacy of *Shadow Cities* and *Ingress*, PoGO holds a unique position in the history of AR and location-based games by capitalising on Nintendo's globally popular Pokémon franchise. Emma, age 29, recounts her initial thoughts and feelings:

> I was into [Pokémon] when I was a kid. It's still familiar. Even when I logged in I was like, oh my gosh, I remember the name of that one—and I remember this and I remember that. So it was a bit exciting.

Participants' reflections suggest that the initial hype around PoGO is a result of Pokémon being recognisable and an enthusiasm for experiencing Pokémon in a new way. The unique fusion of technologies (GPS and AR) and concepts (mobile gaming and physical activity) in combination with the established Pokémon brand enabled PoGO to greatly surpass the player base and profitability of its predecessors (Koskinen et. al., 2019).

Despite being based on a familiar and recognisable brand, PoGO was transformative for participants because it produced a totally new gaming experience. This is evident as participants felt that PoGO's predecessor, *Ingress*, was not as appealing as PoGO. Austin, age 32, reflects:

> I did try Niantic's other game once which is called Ingress. Because my ex was real into it. But I played it for like 10 minutes and I'm like this is really boring and really wants me to walk places, and it's draining my battery, so I wasn't really into that.

Even though *Ingress*' gameplay mechanics are the same as PoGO, it was the Pokémon brand that shifted participants' perception of the style of gameplay from boring and laborious to exciting and innovative. Dominic, age 29, emphasises how Pokémon is what makes the game appealing "I don't know if I'd be interested in a no brand at all…I don't think there's enough of a game there to get me interested." Indeed, Jackie, age 18, highlights that the aesthetic and nostalgia of Pokémon are significant aspects of the gaming experience "I played [Ingress], it was okay but I think I'm more attached to Pokémon GO because I guess I just like the look of it and it's attached to something I know."

PoGO's game mechanics were transformative and potentially destabilising for Pokémon fans. Participants made sense of this new gaming world through prior experiences with Pokémon games. PoGO challenged existing knowledge of the way Pokémon games typically operate. Ian, age 22, reflects:

> The way that they've done it is to evolve a Pokémon you don't train it. That was a big change. Because in the past games you would catch a Pokémon and you'd raise it. In this game, you catch a Pokémon and you don't raise it. You have to catch that same species over and over to evolve it. Which is a different thing. It was a different take on evolution.

Ian observes that the premise of PoGO is radically different to the extensive back catalogue of Pokémon games. This suggests that PoGO may be inconsistent with beliefs that fans have established about the experience of a Pokémon game. Ian did not talk about this change as a dysfunctional aspect of the game, however his observation does point to people who work in the industry and other avid fans that have critiqued whether PoGO fits into the canon of Pokémon games. For example, video game commentator Mary Kish (2016) expressed that this new take on evolution is one of the reasons PoGO does not live up to the legacy of Pokémon. Despite this, the design change seems mostly transformative as it opens fans up to establish new ideas not only for future Pokémon games but future AR mobile games.

In the beginning, participants were excited about the AR feature. Technology writer Dina Destreza (2017) reflected on the progression of mobile gaming and revered the AR aspect of PoGO:

> What's best about Augmented Reality is that this technology allows games to be played anywhere, with any backdrop and the experience will always be different. AR games can allow you to fight aliens, capture fantastical creatures, and defend kingdoms in the real world. All this is possible without super expensive headsets—just an AR-enabled smartphone is sufficient… Pokémon Go taps on Augmented Reality and geocaching to give a new twist to mobile gaming. Pokémon Go as the name suggests, it takes the Pokémon characters and places them in the real world so that you can catch, hatch and evolve them on the go (para. 5–6).

Although the development of AR technology is certainly significant, the idea that it is the most exciting thing about PoGO now seems overstated. Ian (22) reflects on his initial observations, "...now [Pokémon] is like pretty and it's in [AR]. It was really interesting at the start. Everyone was really excited." Playing PoGO with the AR feature produced feelings of wonder and awe, especially for those with children. Emma (29) reflects:

> When I first started playing with my daughter I always had [AR] on because it was really magical for her to be like, look, it's on the lounge right now, or look there it is on our stairs, and you know those stairs because we look at those stairs, so it was really cool. She freaked. She was like, oh my God, it's

> right there, wow, and thought it was some sort of magical fairy or something
>
> but that it was real, and I thought that was really nice.

However, the appeal of AR quickly crumbled and participants told me that they became less curious and more critical of the innovation. Technology writer Greg Kumparak (2017) reported that the novelty of AR wore off for players, leading even the most dedicated Pokémon fans to disable the feature. My findings support this observation. Mason, age 29, reflects, "I did [use AR] in the beginning for novelty but after that, not so much. No, I kind of just got over it." Even though it was one of the things PoGO was most celebrated for, the AR component of PoGO was not transformative for participants. It was not embraced beyond the initial few weeks of PoGO's arrival, thus it did not produce significant shifts in thoughts, feelings or practices.

None of the participants were using the AR feature when I interviewed them. Many participants detailed destabilising experiences that led them to disable the feature. For example, Austin (32) observes it would drain their smartphone battery:

> It uses way too much battery...It would drain it severely...A full hundred per
>
> cent battery on my phone would last, I think it was lasting no more than three
>
> hours and that's if I played Pokémon Go for an hour and a half of that.

The battery issue was raised by most participants I interviewed because it significantly undermined their gameplay experience. This issue reduced the time they could spend playing PoGO and of course made their smartphone unusable while they were out and about. Faye, age 24, explains that the AR feature also made it more difficult to catch Pokémon:

> We used to always play on AR. Then when I got more serious about wanting
>
> to get experience points and go up levels then I stopped playing on AR because
>
> I realised it's easier to throw a ball without it.

Faye's reflection is an example of dysfunction as her desired behaviours were compromised. Indeed, the issue threatens players' ability to progress through the game as best they can. This also suggests that PoGO players that are serious about advancing through levels are less likely to use the AR feature. Other participants expressed fear of judgement or cognitive strain using AR. Camilla, age 21, reflects:

> You'd have to walk around and try to find [the Pokémon] which is—so it made
> you look like an absolute moron...I found it'd sort of give me a headache. So,
> I found just using the—turning it off and just using the plain [CGI].

Some participants, like Camilla, would disable the feature to stabilise their experience. Disabling the feature reinforced expectations and gameplay practices as participants could continue to hunt Pokémon using the alternative computer-generated image (CGI).

The impact on battery, however, still remained a problem for many participants, but this was stabilised by purchasing portable chargers. Ian (22) reflects:

> My phone's battery is not too good. [Pokémon GO] made it a bit worse. But I
> bought just a ten-dollar portable charger and that basically gives you a whole
> charge while you're out…I kind of always wanted one, but I definitely bought
> it because of Pokémon GO.

Portable chargers thus allowed participants to sustain a gaming experience that met their expectations and reinforced gameplay habits. In 2018, Niantic updated PoGO's AR feature to 'AR+' for an enhanced user experience. This reflects the development that AR technology has been undergoing but also suggests the industry is aware of AR's destabilising effects, as it is trying to make the feature more appealing (Clark, 2018).[153] AR+ brings improved catch rates and extra XP (experience points), giving players an incentive to use the upgraded feature, but it does not address its other destabilising effects such as battery drainage, fear of judgement and cognitive strain (Kumparak, 2017).

7.2.2 *Making History*

PoGO was the first AR mobile gaming application to be adopted at a mass scale. The initial explosiveness of PoGO was transformative for participants because it made them feel like they were part of a cultural and historical moment that was unlike anything they had experienced before. Vella et. al. (2019) conducted interviews in Australia in 2016 and similarly found that players felt as though they had been "a part of something large" during this time, due to a shared

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[153] AR+ makes interactions with Pokémon more vivid for players and uses sensor motion so that Pokémon become more sensitive to players' movements, which is considered to be fairly advanced for an app. In addition, Pokémon can now more dynamically interact with its surroundings, for example by making nearby water ripple (Clark, 2018).

passion (p. 592). My findings build on the study conducted by Vella et. al. (2019) by advancing our understanding of how and why PoGO players consider this period to be memorable and meaningful.

The moment in time players typically refer to when talking about it as a cultural phenomenon is the first month of PoGO. One reddit user wrote "Nothing will ever capture the magic of month 1 PoGo." Another said, "Week 1 was fucking glorious. I went places I'd never gone before...and made a LOT of memories I'll never forget." Austin (32) reflects on what the early days of PoGO were like:

> I think the couple of nights in the first couple of months of the game's inception, where just meeting complete randoms, a hundred at a time at Levendi's and just having the ability to sit there and go, 'oh I'm catching this, I'm catching that'. 'Oh yeah are you still looking for that are you, oh cool, I found [a bunch of] this'. Strangers would just start up a conversation. There was nothing malicious in it at all, there was no arguments, people were just there to chat…and just chill out, that's all they wanted. It was essentially bringing the community together in a very weird and wonderful way. That was some of my favourite memories was just yeah, for doing just that.[154]

PoGO signalled a distinct moment in the history of Pokémon games and mobile gaming because of its immediate, widespread adoption. The participants I interviewed felt as though they were a part of this history. Technology reporter Jon Russell (2017) referred to PoGO as the 'rocket ship' of 2016 and one reddit user claimed "Pokémon Go was the best cultural phenomenon of the last decade." Indeed, PoGO caused an explosive trend, whereby everyone was playing it or talking about it—not just gamers or Pokémon fans. Austin observes:

> Somebody got wind of it and everyone exploded, oh my god there's this new Pokémon game for your phone. I don't think anyone expected it to quite blow up like it did. It wasn't just Pokémon fans, it was quite literally almost everyone.

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[154] Levendi's is a café located at Wollongong harbour in NSW, Australia. It is a popular gameplay site for PoGO.

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PoGO transcended the idea of "a new Pokémon game for your phone" to a game that everyone could play and enjoy. Lily, age 40, observes the impact of its novelty "I noticed a lot of mums were playing for their kids when they weren't actually playing for their kids, they were playing for themselves." Indeed, PoGO was trending on social media platforms and consistently reported on across news websites and blogs around the world, as people attempted to make sense of the unprecedented phenomenon (Wells, 2016; Eordogh, 2016; Tam, 2016; Gould, 2016; Gordon, 2016; Klein, 2016; McDermott, 2016; Newzoo, 2016; Iqbal, 2021b). Dominic, age 29, reflects:

> When Pokémon GO was at its best for me and when I found it most compelling was when I felt like I was playing it as part of a cultural moment. Everyone was writing the bad [news] pieces about it…it's just interesting that this was a thing that everyone was talking about. It was interesting being in a place and seeing someone you didn't know and you just knew what they were doing.

Like Dominic, many participants referred to the fact they were co-present with other players, whereby they could see other people doing what they were doing. This suggests that PoGO may not have had the same impact if it was a game to be played indoors. One reddit user observed "police were confused" by the sheer volume of people moving and behaving in an unusual way because PoGO led people to engage with their devices and surroundings differently. Lily even recalled one of her friends playing PoGO so much in the beginning they developed an acute injury, "My friend always throws Pokeballs with her thumb...and she actually ended up with tendonitis in her thumb, just from playing PoGO."

PoGO players longed for these early moments to be everlasting, but part of what made the game so meaningful was the fact that these initial experiences were fleeting. One reddit user acknowledged this reality "...it's impossible to have it like this all the time" and another wrote "Very sad that things like this are rare and may never happen again." Reddit users also felt as though they were a part of something historic. One said "Glad I got to experience it" and another concluded "The momentum is gone now...R.I.P. and thanks for the memories, PoGo." Despite PoGO still having millions of monthly players, my findings suggest that the experience is not the same, and that the explosive period of PoGO was particularly memorable and unique. For many, PoGO was not just a game but "a childhood dream-come-true" as they got to experience Pokémon in the real world for the first time (Tang, 2017, p. 726; Orosz & Zsila, 2019; Vaterlaus et. al., 2019).

Rural players, however, did not get to experience PoGO as a cultural moment, and this has not been extensively discussed in the literature. PoGO was destabilising for residents of rural areas around the world because the game was largely unplayable for them and thus unable to meet their expectations. All the participants in this study were urban players, residing in Wollongong, the metropolitan capital of the Illawarra region in NSW, Australia. However, the experience of rural players was captured from discussions on reddit.[155] One reddit user expressed their frustration that PoGO privileges people in metropolitan areas "Living in a rural area has still left a bitter taste in my mouth on this game. I never got the opportunity to experience this." Rural players were limited in what they could do because of their physical geography, one reddit user explains "I am stinking rural...I have to 'pay to play' because I have 1 PokéStop within 5 miles of my house." Indeed, there are fewer PokéStops and the appearance of fewer Pokémon outside of cities, making the game difficult to play or completely unplayable unless you were willing to pay. For some, this ultimately meant they would not play at all; one reddit user wrote, "My kids stopped playing because they can't just go outside and enjoy the game. We had to drive 15 miles to do anything." Because PoGO is largely unplayable in rural areas, transformative experiences were limited or nonexistent for rural players. This not only included missing out on the feeling of being a part of a unique moment in history, but rural players were also hindered from experiencing the social, physical and explorative elements of gameplay at the same level as their urban peers.

PoGO was destabilising because it further undermined the cultural value of individuals that resided in rural areas of Australia. Geographical disadvantage thus contributed to the decline of PoGO players and resulted in complaints to Niantic (Hoffer, 2016; Baker, 2016). One reddit user called for "More PokéStops in rural areas please" because without them, the experience of PoGO was dysfunctional. Niantic launched a support page for users to request new locations for PokéStops and gyms in response (Frank, 2016a). The support page helps rural players shape their virtual geo-cultural terrain through collaborative and creative dimensions of cartography (Hjorth & Richardson, 2017). However, it is unclear whether rural players are more likely to use this service or simply stop playing PoGO because the initial experience of PoGO as a cultural moment cannot be replicated. One reddit user acknowledges their geographical privilege in the early days

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[155] The proportion of urban and rural PoGO players is unknown. However, most people who live in Australia, America, Europe and the United Kingdom—where PoGO is most popular—reside in major cities and surrounding suburbs. This suggests that most PoGO players are likely from urban areas, which is supported by the fact that PoGO is destabilising for rural players and thus they are less likely to play it (Australian Bureau of Statistics, 2018; Center for Sustainable Systems 2019; Eurostat, 2020; Josephs, 2016).

of PoGO "that release month was awesome. I got lucky, living in a dense city with so many trainers, I often felt like those rural players deserved the same." This issue highlights the lack of cultural attractions and activity in rural areas, and is part of a long history whereby rural Australians are secondary when it comes to accessing the kinds of technologies that are available in regional and urban areas (Park, 2017).

In December 2019, Niantic made Pokémon in PoGO more evenly spread around the world to improve gameplay for rural players, illustrating their awareness of this destabilising experience (Weinberger, 2019). The issue was even more pronounced during the stay-at-home orders in 2020 as a result of COVID-19. As I reviewed in the previous chapter, Niantic was forced to make substantial modifications to gameplay that made remote play possible for their entire player base (Maher, 2020).

Another destabilising aspect of PoGO's explosive popularity was that it caused frequent server problems. Server problems refers to when the app becomes unresponsive, crashes, or does not let players log in. This was caused by the sheer volume of people playing PoGO in the first three months, in which Niantic was not prepared to cater to the demand. Austin (32) explains "In the first three months, it would happen, at least twice a week." It was destabilising for players because it meant that, at times, they were unable to play the game. The explosive popularity undermined the promise of the game, failing to deliver a reliable gaming experience. While technologies can be perceived as disruptive by industries when they are working well (because their success threatens competitors), for users they are destabilising when they are not working at all. Emma (29) reflects, "That was very frustrating because it would always be at Levendi's when there was 400 other people there and something good was there and you couldn't log in to get [the Pokémon]."

Although the server issues demonstrate that this explosive period was not entirely successful in terms of accessing the game, it also worked to reaffirm to players that they were part of this enormous worldwide obsession. Some PoGO players discovered they could sometimes bypass the issue by disabling their location settings on their devices, logging in, then enabling it once they were back in the game. However, this was not successful for everyone (Lui, 2016). Many players expressed their frustrations on Twitter using the #PokemonGO hashtag, driving Niantic to address the issue (Frank, 2016; PokemonGOApp, 2016). In the event PoGO ever recreated its record-breaking user base, it is unlikely that server problems would be an issue now because Niantic addressed the issue in the interest of maintaining their cash flow and reputation. Thus,

this destabilisation was temporary; as the number of players dropped and Niantic added more servers, the issue was resolved. Austin (32) observes, "in the last six months, eight months, I haven't had a single connection issue."

7.2.3   *Social Connectedness*

PoGO enabled a sense of social connectedness by facilitating genuine interaction among friends, acquaintenances and even strangers. This was transformative because it was achieved by leading large groups of diverse people to behave and interact in a new and unusual context through a shared passion for the world of Pokémon. Austin (32) reflects:

> One particular memory was walking home up Crown Street one day, stopping at the lights on Gladstone Avenue, and just playing the game….there was a couple in a car, and the guy calls out the window, 'what team are you on?' I'm like 'what, oh team Valor', he's like 'boo, team Mystic', I was like 'boo'. He's like 'all right have a good one', and they drove off…just the random interactions, and people knowing that you're playing the game…there's no oh you're such a nerd or why are you playing that, everybody was into it…It brought everyone together. People you would never talk to on the street in a million years…It was really cool, and yeah those little moments are really really happy for me.

The experience of social connectedness among PoGO players is well documented, with a number of studies revealing that PoGO helped strengthen social ties and create a sense of community and belonging (Kogan et. al., 2017; Vella et al. 2019; Hamari et al. 2019; Orosz & Zsila, 2019; Arjoranta et. al., 2020). Like other Pokémon games, PoGO is about community, friendship and inclusivity.[156] PoGO is believed to have united people from all walks of life (The Pokémon Company, 2020; Miyashita, 2016; Bulbapedia, 2019). During the month of its launch, 231 million people across Facebook and Instagram were engaged in 1.1 billion interactions that mentioned PoGO (Johnson, 2016). One study in 2018 found that nearly 90 per cent of PoGO players meet new people during gameplay, demonstrating that PoGO drives the formation of communities and friendships, as intended by its design (Clark, 2018). However, these studies are based on online surveys and questionnaires, with the only in-person qualitative research regarding social

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[156] PoGO was praised by transgender, genderqueer and genderfluid communities, for allowing players to choose a 'style' instead of a 'gender' (Derbyshire, 2016).

outcomes of PoGO players in Australia is limited to Vella et. al. (2019). This means my findings can provide more detailed insights of the user experience of PoGO within a specific locale in Australia. Participants identified Wollongong harbour, specifically Belmore Basin and the adjoining Flagstaff Hill, as a hotspot for PoGO players in the Wollongong region.
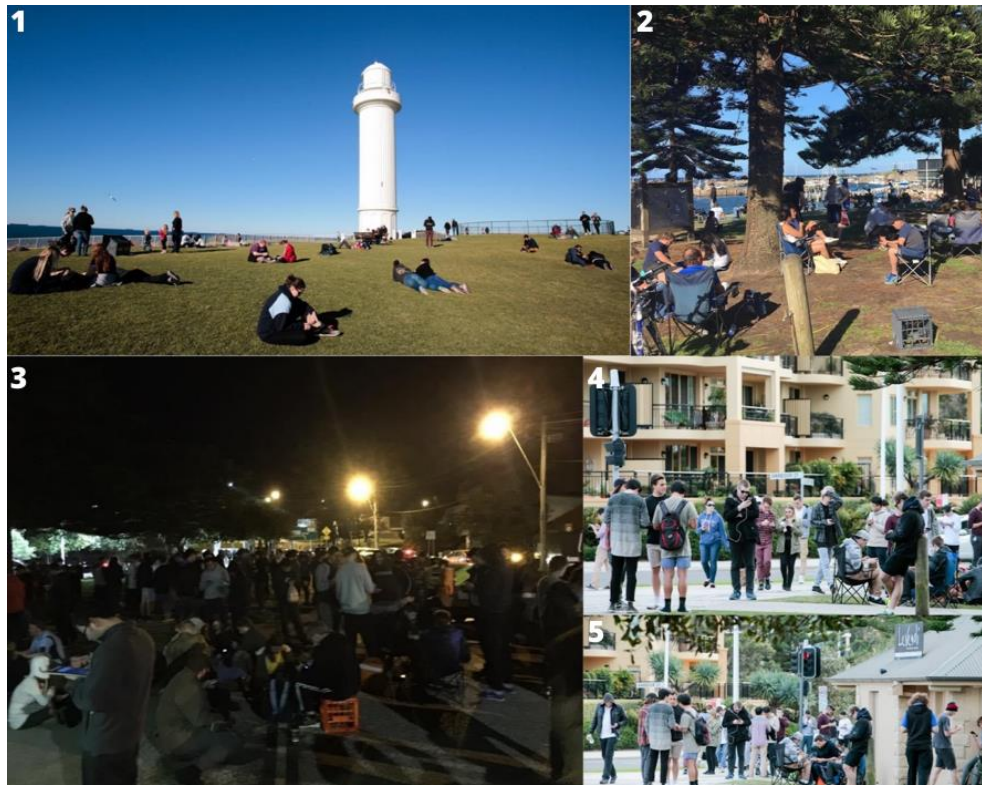
Figure 15. Pokémon GO Players Gather at Wollongong Harbour, Lighthouse and Levendi Café[157]

The Wollongong Lighthouse, Levendi Café, three community artworks and the nearby colonial courthouse that is often used as an art gallery, are significant locations in PoGO, creating a nexus of PokéStops where large groups of players organised and located their gameplay (see Figure 15). Dominic (29) reflects:

> When it first came out and everyone was going to Levendi every night, I really
> enjoyed that as kind of a social experience…it was not unlike a music festival

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[157] Photographs 1, 4 and 5 were originally published in the *Illawarra Mercury* (Thompson, 2016a; 2016b).

or being at a convention…you're amongst people that you have something in common with.

Pokémon has always had a community of fans, but with PoGO, it seemed like everyone was playing to experience Pokémon in a new way and be a part of the extraordinary moment in history. Above, Dominic used large, coordinated public events like festivals and conventions to try and make sense of the novel experience. PoGO eventually began introducing events like Community Days that would prompt people to gather in certain locations. However, early on, PoGO players would collaborate themselves; this is unlike festivals and conventions where the time and location is scheduled for you. Many participants were part of Facebook groups whereby they could see the latest local gathering. Emma (29) reflects:

> [I caught a Lapras] at an event where the Wollongong [Facebook] group organised a whole big get-together for everyone at [Levendi's] and lured the thing the whole day. The atmosphere was just awesome. People just…Freaking out on the beach and getting so excited. One girl was crying. It was just awesome seeing everyone come, get what they came for and get all excited, and the kids were just over the moon. It was nice. It was very cool. There were just people everywhere, and everyone's friendly so that was really cool.

The use of the 'lure' feature is significant in terms of social connectedness. A lure in PoGO is an in-game item that players can place at a certain location to attract Pokémon to that area. They can be picked up sometimes from PokéStops, sparingly, and players can purchase them from the in-game shop with real money. Giving players the ability to place lures themselves is one way PoGO facilitates social connectedness, because everyone who gathers at the location of the lure benefits from it, not just the person who placed it. This creates opportunities for players to coordinate and participate in gatherings for PoGO. Lures not only attract Pokémon, but other players too, because you can see if a location has a lure on it through the in-game map.

Co-present players also meant participants felt safer. A survey of 700 PoGO players in 2018 found that one-third of respondents expressed feeling unsafe while playing the game, particularly when they played alone or at night (Clark, 2018). One reddit user acknowledges the discomfort of playing PoGO with fewer people around "...one of the common things people miss was strength in numbers and with that, safety…" Because PoGO can be played at any time of day—Pokémon

continue to spawn through the night—this implicitly undermines norms about being in certain locations at night. Camilla (21) reflects:

> I don't like being out in Wollongong at night anyway for obvious reasons. Especially being a girl. I'd always be in the car with my doors locked. Or if I went outside to Levendi I'd always be either with my boyfriend who reluctantly would come along. Drag him along or my brother, he'd come with us because he was playing it too at the time. A couple of my friends but that's really it. We would make sure we would do it in a safe manner.

Camilla's reflection suggests that nighttime play can be destabilising because the requirement to be outdoors to play conflicted with her beliefs about the danger of public places for women. Camilla's concern is reflective of incidents whereby women in Australia have been attacked and killed while being outside at night (McDonald, 2015; Dakin, 2016). Indeed, participants who felt unsafe would stabilise their experience by playing with others or sticking to metropolitan areas. Katie, age 20, explains "[I feel] safe in the cities—the major areas. Any real city. The regional areas are kind of different because there's less people and you walk into these weird places."[158]

PoGO led participants to collaborate with co-present players—often strangers—online as well as in person, which is unlike other social games that predominantly communicate online. In the beginning, this was often due to learning how to play the game, because it was so new and different. Faye (24) explains, "It was confusing [at the start]…one of my mates reckons it was good though because it made people talk about it, and it made people share tips and that kind of stuff." Participants acknowledged that being confused early on fostered curiosity, excitement and spontaneity. Dominic (29) reflects:

> In a lot of ways I found the game a bit more exciting before—I liked having the incomplete information because when no-one quite understood everything about it, it'd be like, you'd leave the house and I'd be in this park and I'd see this other young guy and he'd be like, 'what team are you on?'. There's no

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[158] Non-alcohol related and non-domestic violence related crime occurring in parks, bushlands, gardens, or on roads, streets and footpaths at night is typically more prominent in regional versus urban areas of NSW, Australia (NSW Bureau of Crime Statistics and Research, 2020).

reason for him to have thought that I was playing Pokémon GO but I was. You just have these little chats with people about where things were.

The insufficient knowledge of PoGO in the beginning generated a community of sharing, assistance and support. One reddit user observes that learning to play was achieved through experimentation and talking to other players because "the game doesn't communicate its mechanics properly...Only by trial and error or by word of mouth through the community do we know." The facilitation of knowledge exchange created a sense of camaraderie and belonging not only among large groups of diverse people but friends and family as well. Emma (29) reflects:

Interestingly, my brothers, I love my brothers dearly but we clash a lot as most do, and since this game came out we've been talking every day…In a way, as stupid as it sounds, it's kind of improved that relationship because we all have something in common now. My dad originally hated the game, said this is stupid and all that kind of thing, but now that he sees that—like [my brother] will constantly come over because he's noticed something on the [map], and then we'll just sit there for a couple of hours and have a chat after he's caught whatever he wants. So, it's good. It's really good.

PoGO was transformative and stabilising because it created new alliances, rekindled old friendships, and strengthened existing relationships. PoGO has shown to lower social barriers and reduce social anxieties by connecting people through a shared interest (Arjoranta et. al., 2020; Hamari et al. 2010; Orosz & Zsila, 2019; Khalis & Mikami, 2020). In addition, Camilla (21) explained that "You can get excited with someone when you catch something good. You can't really get excited when there's no-one else there." This is an example of how PoGO triggers affective resonance, which is when people recognise they are sharing an embodied experience with others, thus creating an empathic resonance between them (Apperley & Moore, 2019, p. 7).[159] Apperley and Moore (2019) recognise that affective resonance in PoGO is associated with the game's 'haptic effect', which Hjorth and Richardson (2014) refer to as the touch, gesture and behaviours required to play games.

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[159] This is similar to the concept 'affective presence' developed by psychology scholars Eisenkraft and Elfenbein (2010) to describe the contagious nature of emotions; specifically, how individuals influence how others around them feel.

Figure 16. Pokémon GO Walk-along on UOW Campus

Figure 16 above is a snapshot of my walk-along with Jackie (18) taken at the moment when she stopped to catch a Magikarp, a water-type Pokémon. It is very clear when people are playing PoGO, as you must hold your phone out in front of yourself and swipe the screen to throw a Pokeball. Indeed, PoGO has a very visible haptic effect, as Camilla (21) points out "You can sort of tell when people are playing it...you could see them flick the Pokeball" (Apperley & Moore, 2019).

Affective resonance may be why many participants preferred to play PoGO in large groups. Consider Ian's (22) reflection, in which he acknowledges there is a distinct vibe when there are more people around playing PoGO:

> I do prefer if there's more people there because, I don't know. Just the general vibe of the whole area kind of changes. Everyone's kind of there just chilling, catching Pokémons, chatting to people if you want.

In contrast, the social aspect of PoGO was destabilising for some participants who did not believe communication was necessary—and was even intrusive—for gameplay. For example, Henry, age 24, expresses "I try to avoid socialising with people…I don't care about what they have to say." Mason (29) also actively avoids socialising during gameplay:

> I'm not going to go out of my way to say hello to someone if I'm there playing. I would rather play on my own than meet people. As rude as it kind of sounds, it's like I'm just kind of enjoying my game. Even when I'm with my friends, we don't really talk. We just sit there and someone might go 'this Pokémon is over there' and I'm like 'let's go'...Not a big fan of Levendi's because everybody is there. But you can just sit in the car up at the lighthouse and just do your own thing. Just sit in your car, not have to get out. It's fine.

Mason observes that he preferred to play on their own and just "sit in the car" at a hotspot, suggesting this was perhaps more comfortable and less distracting than being around lots of people. Loveday and Burgess (2017) found that playing PoGO alone was one of the strongest predictors of flow, which indicates that social interaction is not required for players to experience flow states (p. 23). Previous exergames, like Atari's *Joyboard*, were criticised for inhibiting players' ability to get into flow states, due to being too physically demanding (Finco & Maass, 2014). While PoGO requires players to physically move around outside for Pokémon to reveal themselves and to reach in-game destinations, gameplay is often done standing or sitting still, while players catch Pokémon, swipe PokéStops, Gyms and so on. The interruption of flow states in PoGO is not due to game mechanics, as was the case with the *Joyboard*, but rather because PoGO players are outside with other distractions such as other people. Mason avoids social interaction so he can be deeply engaged and immersed in gameplay, which is associated with increased flow levels (Loveday & Burgess, 2017, p. 17). Future research could consider whether social avoidance among PoGO players is due to social anxieties or the interruption of flow states.

7.3   Outdoor Exploration

PoGO succeeded in getting people to explore the outdoors and connect with places in new ways. PoGO challenged established notions of place by repurposing them as gaming sites. This enabled players to engage with locations differently as they hunt Pokémon and collect in-game items from eateries, museums, parks, shopping centres, memorials, cemeteries and places of worship, which the game presents as PokéStops and Gyms (Butcher, 2016; Bobb, 2016).[160] Niantic CEO John Hanke proclaimed that this was part of a larger goal, "Everyone is spending all this time inside, by their computers. No one goes to the local parks. We wanted to do something that was aspirational: Let's get people outside" (cited in Goel, 2016, p. 4). One of the intentions behind

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[160] Some religious groups perceived this as something positive, a reminder for people to come and pray (Butcher, 2016; Bobb, 2016).

PoGO is generating a greater awareness of cultural and historical landmarks, which might otherwise go unnoticed. The game prompts people to learn more about particular locations simply by being there but also the descriptions offered at each PokéStop in the game (Bobb, 2016; Roy, 2017b).

Following PoGO's launch, stories quickly began to unfold regarding PoGO motivating people to explore their local neighbourhoods and the revival of underused parks and playgrounds. Just days after its release in Sydney, Australia, over one thousand people gathered in the world's first 'Pokémon GO Walk'. Players toured the city's botanical gardens, Opera House and other significant landmarks, bringing local history to the forefront (Bobb, 2016). However, some players became so absorbed in the game they were not paying attention to the real world around them, which led the game to be harshly criticised in the media (Humphreys, 2017; Frank, 2016a; Griffin, 2016; Goodman & Schriever, 2016; Louis, 2018). This section provides a deeper understanding of how PoGO has influenced players' awareness over time by exploring various aspects of public gameplay as described by my participants.

7.3.1   *Distraction & Awareness*

Being distracted while playing outdoors makes PoGO players vulnerable to harm and was one of the reasons PoGO was perceived as disruptive (Straw, 2016; Raegan, 2016; Benoy, 2016; Linkner, 2016; Griffin, 2016; Goodman & Schriever, 2016; Louis, 2018). This is because playing PoGO requires players to perpetually look at and interact with their phone screen, like other mobile games. Katie explains "You're on your phone the whole time if you want to play it. You're always looking at your phone, which isn't always as good...you're not a hundred per cent looking where you are." Despite warnings issued in the media, by local police and in the game itself, participants still experienced risky situations as a result of being fixated on the game. For example, Lily (40) recounts potential collisions with cyclists were a frequent concern:

> Often a cyclist will come around quite quickly and if you're not paying attention you could get hit or there's been a few near misses between either myself or the kids or one of us...Mainly from not watching where we're going and the track that we walk on is a shared bicycle and pedestrian track.

However, participants believed they were cautious and tried to remain hypervigilant of their surroundings. Emma (29) observes that being on alert when playing is important because "someone knows you've got an expensive phone in your hand, so potentially they might jump you

for it." Austin (32) describes the way he often needed to proactively shift his attention from the game to the physical world, particularly when he is somewhere unfamiliar "If you don't know the area, then obviously you jump out of the game, where am I actually going, where is that leading to?" Indeed, most participants believed that being aware of their surroundings and having safety practices was important. For example, Natalie, age 23, explains "I'm pretty sensible. I've normally got [my son] with me...I'll just turn my phone off or put it down and cross the road and then pick it up afterwards."

Participants' experiences also demonstrated that being distracted was less of an issue as time went on. Dominic (29) explains that he was less aware of their surroundings during the introductory period of PoGO due to learning how to play the game: "[in the beginning]...I didn't have a clear idea of what I was doing in general, so I probably would have spent more time looking at the map and trying to figure out where things are." However, when I was walking along with Dominic roughly a year after PoGO's introduction, he would intermittently glance down at his phone in his hand and remained quite aware of his surroundings.

Over time, PoGO was transformative for many participants in terms of how it influenced their awareness. The game changed their relationship to place by making them more aware of their local neighbourhoods. For example, Wollongong harbour and its surroundings was a familiar location for many participants, but PoGO led them to feel more appreciative of the area. Camilla (21) reflects:

> I'd never really been to Wollongong harbour. Like I moved down here I think about 11 years and I'd never really been down there as sad as that is...I'd never really gone there and sat there for hours and just sort of appreciated the beauty of it as well.

Lily (40) explains that PoGO prompted them to visit Wollongong Harbour more regularly, and as a result she felt more connected to the area:

> Doing that walk just going around the lighthouse, we hadn't done that in years either. Going for that regular walk, now we sort of feel like we're more part of Wollongong. We understand Wollongong better. We know there's a Black-shouldered Kite that flies along City Beach and we see it every time we walk, this sort of stuff. It makes you more aware.

Indeed, PoGO influenced the ways 'place' is perceived and led players to rethink everyday practices, creating more mindful experiences (Hjorth & Richardson, 2017). Mindfulness refers to an intentional state of open, curious, nonjudgmental awareness to whatever is unfolding in the present moment (Kabat-Zinn, 2012).[161] By encouraging outdoor exploration, PoGO generated a sense of curiosity for some participants, giving rise to increasingly mindful experiences and the discovery of new places. For example, Austin (32) claims that even though he worked in Sydney for 11 years and walked past the same places thousands of times, playing PoGO prompted him to pay closer attention to his surroundings:

> I go through the CBD and click on this PokéStop, oh what's that, I've been working in the city for 11 years, and I've never even seen this place, what's that. I'll go walk around in this little back alley that I've walked past probably 10 thousand times. I'll be like that's a nice little restaurant, I'll go and check that out, I might actually take the missus there one day, I might go there for lunch today...it's mostly restaurants or little café-esque kind of things, that I didn't know were there. Or some of them have been little chain stores, again that I didn't know were there. I'm like huh, I'll remember that for later, I'm in the area, I need something from there, done…I found a really nice sushi place one day. Just tucked away down an alley that I didn't even know existed.

Consequently, Austin discovered various new cafés, restaurants and stores. Austin would frequently engage in curious play, intentionally seeking out PokéStops to learn about the location:

> Instead of just approaching the area that it encompasses, [I] actually find that plaque. I have done that a few times, I did it mostly in Brisbane, but I've done it a couple of times down here. You find a plaque or something and you go I'm going to read that, I'm going to find that, I'm going to read that. Yeah, there's a lot of cool things you learn. I found in Brisbane, Anzac Square, they've got in that one square, there's about 12 different plaques dedicated to different divisions of military or to individual people, nurses and stuff.

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[161] Mindfulness is a quality of mind that can be achieved from an ancient Buddhist Theravada meditation practice Vipassana, which roughly translates to 'insight' or 'clear seeing' in English (Goldstein, 2013, p. 35; 262).

> They're all over the shop and you really need to look for some of them, you
> need to look hard to find them. I learnt some really interesting information
> from that. It's always good to see how different communities, different states
> and parts of the country feel about those things. Whether it's the war or
> whether it's local heroes that started this business, that meant that a whole
> town grew out of nowhere. (Austin, 32)

Curious PoGO players like Austin are more likely to explore and discover new places and have a
greater awareness of their neighborhoods and local facilities. The idea that PoGO made players
more aware or mindful of their surroundings has not been an active narrative in the media.
Although there is no literature on PoGO and mindfulness, its predecessor Ingress was shown to
increase "subjective vitality and life satisfaction" when played mindfully (Kosa & Uysal, 2018,
p. 9). The participants I interviewed did recall instances where they have been distracted by the
game, yet they spoke in greater detail about the ways PoGO encouraged them to pay attention to
their local neighbourhoods and how it enriched their everyday life.

7.3.2 Barriers & Trespassing

In PoGO, players need to be in a calculated vicinity of PokéStops, Gyms and Pokémon in order
to interact with them. Because most of these in-game locations can only be reached by leaving
your home and walking around outside, participants were often confronted with physical barriers,
natural barriers or restricted areas. Physical barriers can lead to destabilisation for PoGO players.
Natalie (23) observes:

> Fences around the Botanic Gardens are annoying because they close at five or
> six. Especially winter, five o'clock was annoying because if I didn't leave work
> two minutes early and get through the main gate, you had to walk all the way
> around and you miss everything because everything's within that contained
> space.

A barrier that Natalie is frequently exposed to is the fence around a public garden that she likes
to walk through on her way to and from work. Prior to PoGO, not being able to cut through the
park would not have had any additional meaning other than maybe being annoyed you have to
walk around instead of through the beautiful garden. As a PoGO player, however, not being able
to enter this space after a certain time now means something else. Natalie is unable to play the
PoGO to her satisfaction thereby challenging her desired behaviour. Natalie's reflection

highlights how PoGO does not account for barriers, because it still shows players all the things they can interact with on the in-game map. This is an example of how PoGO can undermine a player's thoughts and feelings because it is inconsistent with established beliefs regarding entering restricted areas. Indeed, PoGO tells players they can play in this location, but physical barriers—and laws—tell players they cannot.
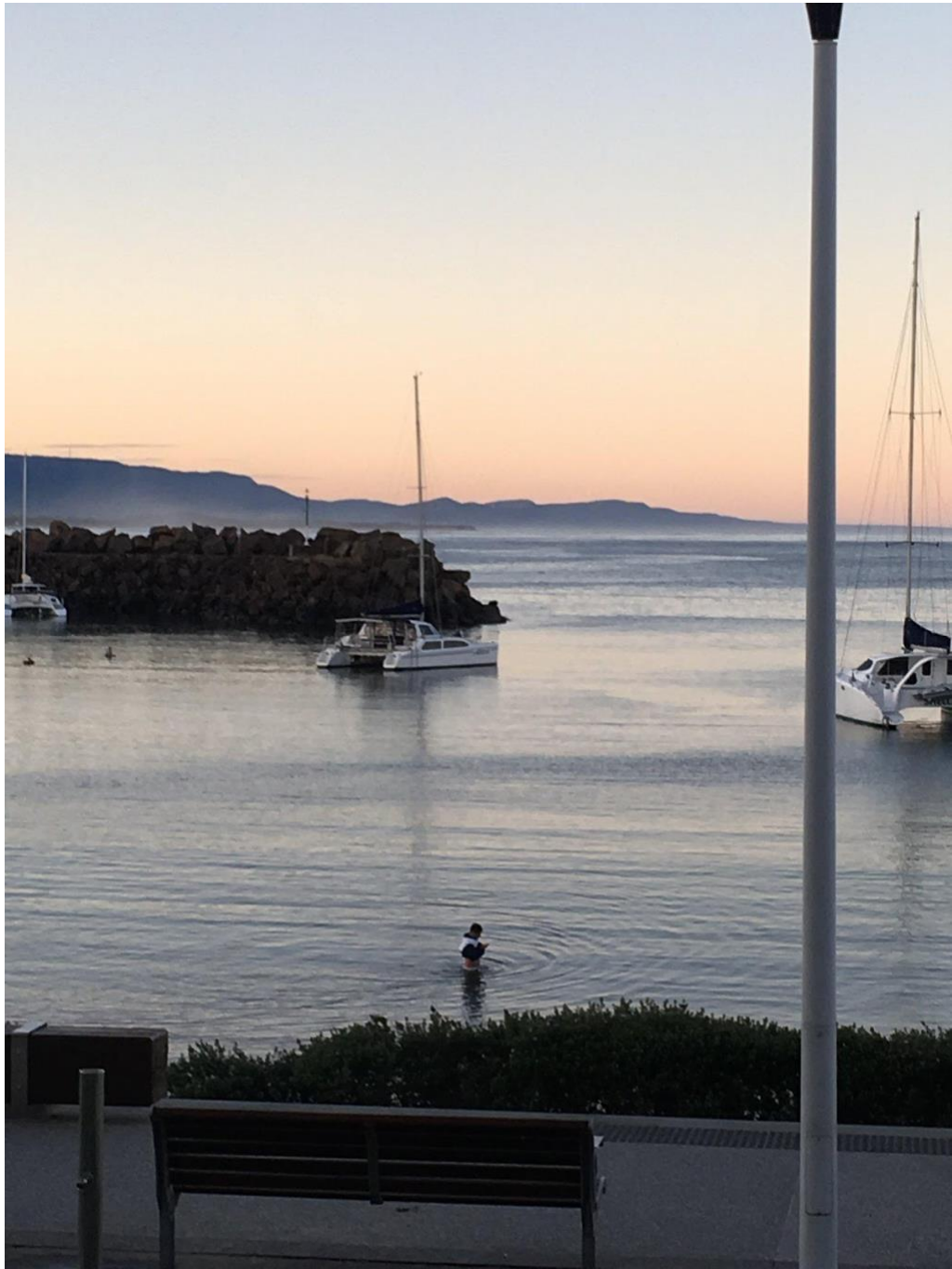

Figure 17. Pokémon GO Player Standing in Wollongong Harbour Catching a Bulbasaur

Other participants described how they always found a way around a barrier. Ian (22) reflects "I've always just found a way to manoeuvre around a different way so that I can get to it within the realms of the game. If there has been an obstruction I've worked around it basically." Players must also navigate natural barriers, which is not necessarily problematic, but might look unusual, like the PoGO player standing in Wollongong Harbour in Figure 17 catching a Bulbasaur (a grass-type Pokémon).

The placing of PokéStops and Gyms outdoors implicitly encouraged players to enter restricted areas, which is yet another reason the game was perceived as disruptive. By engaging in hybrid play—as PoGO players navigate the virtual and the physical—there was an increase in trespassing incidents (Bobb, 2016; Humphreys, 2017; Roy, 2017b). One participant, Jackie (18), explains that she found herself trespassing by accident because she was so distracted, or perhaps immersed, in the game:

> I went a bit too close to the Russell Vale coal mine a few times. I found a nest. I caught about eight [Charmanders] the day I went... I walked around the bush area and I thought, I shouldn't be too close to anything and I see this massive gate with 'restricted area' written on it…and I'm like ooh, now I'm in trouble...sneaking into the restriction zone, that one was a little bit of a mistake.

The 'nest' Jackie is referring to is the term used to describe a small area where a certain Pokémon species—in this case a Charmander—appears over and over for a certain period of time. In terms of Jackie behaving as a PoGO player in a virtual world—whereby she was not trespassing, she was just catching Pokémon—this incident is not problematic. Through curious play, Jackie explored an area and found a nest of Pokémon to catch, which is the main objective of PoGO. The small sense of guilt Jackie felt afterward, as she acknowledges it was an unintentional mistake, suggests the experience was also somewhat destabilising. She was thrilled due to her progress in the game, but conflicted in relation to how she achieved that progress because it deviated from established expectations in the real world. This emphasises how PoGO, and other location-based AR mobile games are difficult to comprehend in terms of the user experience. This is why the D-E Model is useful, because it helps account for experiences that are inconsistent with established beliefs.

In PoGO, players must navigate both sociocultural expectations of places they travel within while pursuing—and often prioritising—in-game goals and missions that challenge them. It is clear that Jackie (18) is trying to consciously straddle these two realities, as she realises she needs to be more attentive during gameplay "you've got to figure out where you're going and if it is an okay area to be and you've got to be on alert for cars or walking into a pole." This is also another example of how PoGO led participants to be more aware of their surroundings over time. Lily (40) believes that barriers cause her to think more carefully when playing PoGO:

> Sometimes there's PokéStops in reserves and parks in suburban areas where you can't actually reach it from your car so you actually have to park the car and get out and walk into the park to get it, that's good I think because it makes you stop and think about them.

Lily's reflection suggests barriers can be stabilising because they prompt greater awareness, concentration and perseverance. Indeed, these are typical characteristics of video games, as players are often expected to problem solve (Greiff & Funke, 2009; Greiff et al., 2014, Shute et al., 2015; Shute et. al., 2016). Austin (32) describes how he has navigated physical barriers to progress through the game:

> It was awkward, because [the Pokémon] seemed to be in the middle of this big office building block, I was like okay, there's no obvious signs there's a courtyard in the middle or anything. I walked around the block twice, how do I get in here, do I just walk in to the door of this apartment building and just walk in to the lobby until I'm able to hit this thing, or hopefully hit the PokéStop that it's meant to be sitting next to, what do I do? Then I took a chance randomly, found a little, what looked to be a little side alley like a loading dock, wandered down it, and then found that there was a set of stairs just a little bit down it, that went up and into an actual courtyard. There was a courtyard, a bunch of shops and stuff, I went obviously I'm not a local so I don't know what's going on here or what this place really is.

Even though PoGO is criticised for causing people to enter restricted or inappropriate areas that have been reformatted as gaming sites, it is also celebrated for prompting people to explore the outdoors (Ono, 2016; Bangkok Post, 2016; Althoff et al., 2016, Howe et al., 2016, Nigg et al., 2016; Orosz & Zsila, 2019). Austin's reflection above is an example of how PoGO reinforces

exploration and curiosity in unlikely places. Unlike Jackie, Austin was not imposing on a restricted area, but his experience emphasises how PoGO leads to spontaneous decision-making as he navigates the physical world.

7.3.3 Fear of Judgement

Outdoor gameplay was destabilising for participants who feared being negatively evaluated by others. Camilla (21) reflects, "I don't really want to be the only person in Australia to be playing it still." This suggests that the initial explosiveness of PoGO and subsequent decline of players changed the way people felt about playing. One reddit user explained that when they play PoGO around others, "people will make comments like 'omg you're still playing that game?" Many participants expressed insecurity or discomfort around public gameplay. For example, Ben, age 25, expressed "If I'm shopping I don't want to be the weird guy walking around looking at his phone." Ben also felt that dedicated gameplay sessions or playing alone was "silly", noting "I could never imagine just going for the walk for the sake of playing the game." Ben had a very strong opinion regarding public gameplay:

> The game is just about walking around and stuff and as long as you're not too crazy about it it's just like—the world is the world and it's just like the game is just a thing that you play on top of it. It's not like—it's not like the world should interfere with the game because the world was there first.

Fear of judgement could be reactive to negative gamer stereotypes, the sense that "it's just not cool to do anymore" (reddit user), or the perception that PoGO players are unobservant and reckless. Indeed, Ben notes that PoGO players should not be "too crazy." Bonus et. al. (2018) hypothesised that people who fear negative evaluation from others were less likely to play games like PoGO (p. 268). However, they found that PoGO did not discourage these players, but it was not concluded precisely why this was the case (p. 279).[162]

My findings suggest that PoGO players who fear judgement from others have strategies for mitigating this anxiety and thus transformative their experience. A number of participants responded to the fear of judgement by modifying their gameplay behaviour and engaging in what I have identified as 'concealed play'. This is an example of how participants' gameplay mutated

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[162] Bonus et. al. (2018) surveyed 399 PoGO players over 18 in the United States.

over time in response to destabilising experiences and changing the way PoGO was intended to be played. For example, Jackie (18) sometimes works to make her gameplay imperceptible to others, "When I used to walk to school I'd always pull it out and play it. I'd play it when I go out with friends. I wouldn't show that I'm always on my phone but I'd have it in my pocket and be like, I've just got to take this." Like Jackie, Ben (25) makes his gameplay subtle. Ben emphasises that his gameplay does not have priority over their daily regimen; hunting Pokémon was secondary to other activities such as listening to music. Ben explains that most of the time, he keeps his phone in his pocket and has set up auditory notifications to alert him of nearby Pokémon:

> I can keep it on and just keep it in my pocket with a little thing to go ding if it pops up...I could never imagine just going for the walk for the sake of playing the game, that just seems silly to me...I also have regular music playing so it's not like it's the only thing I am focusing on when I've got it.

When I walked along with Ben, he only had his phone out initially to open the PoGO app, then put his phone in his pocket while we walked around UOW campus. His priority is to hatch eggs, and this technique achieves that, because as long as the app is open and running, it will record how many steps you take. Concealed play occurs not only from fear of judgement but Ben also thought it was more convenient for integrating gameplay into daily life. For example, Ben likes to play when walking his dog, and concealed play allows him to keep his attention on his dog making sure the dog is safe and stays out of trouble. Another aspect of the fear of judgement is choosing not to share PoGO experiences on social media. Camilla (21) reflects:

> I probably won't [post on social media] for the fear of judgment by my friends that I'm still playing it…I did Snapchat a few things, like I was out Pokémoning but that's about it. I didn't really post it on Facebook or anything…I'd send in a message, from Facebook Messenger or something but I wouldn't post it on Facebook.

Camilla's reflection emphasises there is a critical perception of people "still playing" PoGO, which undermines players' enthusiastic thoughts, feelings and behaviours relating to the game. This can cause shame or embarrassment among PoGO players thereby challenging their desired gameplay habits. As a result, Camilla would rather use more privatised channels like Facebook Messenger, as she does not feel confident enough to post things publicly. Indeed, fear of judgement over playing PoGO developed after PoGO's explosive period when there were no

longer crowds of people doing the same thing. One reddit user explains how embarrassed they feel playing PoGO over a year after its release:

> I feel some honest embarrassment when I play this in public. I try to conceal it, sometimes I wiggle my thumbs like I'm texting so people don't know I'm playing Pokémon go. When I have to finger swipe to throw the ball I tend to look to see if anyone happens to be glancing. I feel like it's cringy to see, I feel like a total nerd...

Recently, a study found that fear of judgement can cause PoGO players to be self-conscious and therefore threaten their ability to catch Pokémon and accumulate XP at their best, which is an area for further research (Khalis & Mikami, 2020).

7.3.4   PokéPLUS

The PokéPLUS is a wearable device that was launched by Niantic two months after the arrival of PoGO, and has had transformative implications for public gameplay or playing on the move.[163]

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[163] PoGO could be played through the Apple Watch. However, as of July 2019, Niantic discontinued its support for PoGO through the Apple Watch (Frank, 2016b; Liptak, 2019).

Figure 18. The PokéPLUS Device

PoGO demands players' full attention all of the time, but the PokéPLUS, worn around the wrist, allows players to perform actions without the use of their smartphone or tablet (see Figure 18). Dominic (29) explains how the PokéPLUS significantly changes his gameplay experience:

> Now I can use my phone for other things whilst also playing the game…one of my issues with it before was, it really kind of did just take over your phone a little bit. It was sort of hard to use. I like listening to podcasts and things and a lot of the time I found it difficult to do that whilst playing Pokémon GO because even if you had the music disabled on Pokémon GO it would still kind of like hijack the audio output for your phone.[164]

The PokéPLUS is an example of 'calm technology'. The concept of calm technology was established by computer scientist Mark Weiser and researcher John Seely Brown, and refers to

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[164] When I conducted the walk-along with Ben, he figured out how to listen to music while having PoGO running in their pocket. On the iPhone, pull up the control center and play your music from there.

innovations that empower, calm and inform us instead of distracting us. The idea is that if a technology works well, we should be able to ignore it most of the time (Weiser & Brown, 1996; Nordby & Morrison, 2016). Anthropologist and user-experience (UX) designer Amber Case (2016) uses the example of a teapot or kettle, explaining that the kettle tells the user when it is ready, and is quiet for the rest of the time; it does not draw constant attention to itself (Case, 2016; Rutkin, 2016). Calm technology is based on designing interfaces that allow users to more effortlessly flow between functions that require centered attention or peripheral attention, without being overburdened (Weiser & Brown, 1996; Nordby & Morrison, 2016). The PokéPLUS works in a similar way. The screenless, bluetooth enabled device notifies players of nearby Pokémon by flashing and vibrating, and players can throw Pokeballs by pushing a button.

The PokéPLUS is transformative because players no longer need to be "constantly scanning your phone" (Ian, 22). This completely changes how the game is played outdoors and in public and has led to a shift in their gameplay habits. Lily (40) recognises that the device allows her to play PoGO more freely and frequently:

> That's been the difference with Pokémon Plus actually because with that you can walk faster…you don't have to pay attention to the screen, you don't have to stop and throw so you actually do a proper fitness walk and be catching at the same time. Whereas if you're playing on your phone it's very hard to walk at a pace that increases your heart rate...When we walk now I turn the phone off and use the PokéPLUS and then we look and it's quite exciting to look what have I caught [later]… changed the game quite a bit...I wasn't really playing during the day or anything but when I got the Pokémon GO Plus that changed how I played. I drive to do home visits, to visit people with my work, so I'm in the car quite a lot between that and running the kids around and stuff. So I've been using it, like logging in and putting the Pokémon GO plus in my lap and then using that while I've been driving...Once I got the Pokémon GO Plus and I'm in the car all the time, [my husband] would come home from work having not even had time to do anything and I would have been driving around all day—so I went past him in levels really quickly. I was getting all these Pokémon and I was getting all the PokéStops just driving around all day. That was fun.

The PokePLUS was transformative for Lily because it created a new kind of gameplay experience. She developed new behaviours because of it, like using the device when driving, which significantly influenced her level progression and satisfaction with PoGO. The PokéPLUS is also one way Niantic has addressed perceptions of PoGO being a source of distraction as it does not demand constant attention from players and, as a calm technology, only 'speaks' when necessary (Rutkin, 2016). It can also aid in 'concealed play' for players who are anxious about being negatively judged by others because it is not very visibly or aurally demanding, which is an area for further research.

7.4   Integrated Play

Participants' experience with PoGO changed over time, which is best captured by how they integrated the game into their everyday life. During the initial explosive period of PoGO, participants would organise their day around their gameplay. PoGO was transformative for participants because it was unlike anything they had experienced before. Over time, however, PoGO moulded into their lifestyle. Dominic (29) explains how gameplay transitioned from an intentional experience demanding his full attention to a more unobtrusive part of their ordinary activities:

> When the game first came out…I dedicated time where I was like, I'm going out to play Pokémon GO. This is what I'm doing. Whereas now I'm sort of like low key playing it at least a little bit all the time. But I'm not really thinking about it in that way…when the game came out, I'd just finished uni and I was taking six months off before I started honours…I just had a lot of time to really go for walks...I used to play with way more intention to get the most out of the game in this short period of time or whatever. Whereas now it's a very background kind of thing. Like I'm pretty much always playing. I mean you've probably noticed that I've got the [PokéPLUS], that goes off and I touch it.

Daily, dedicated gameplay sessions were not sustainable for participants. Eventually, PoGO was woven into daily activities, commitments, and responsibilities. In the quotation above, Dominic highlights how the PokéPLUS allowed them to integrate gameplay into their life effortlessly and seamlessly, so much so that he was able to play while I was interviewing him. Henry (24) observes, "I don't really set out to play it anymore. I just play it in-between doing things" and Ian

(22) notes "I try to just use it where I'm already being physical in life." This is an example of new habits and behaviours being established. Integrated play makes PoGO less intrusive and strenuous, but it also meant that participants' gameplay would vary depending on their daily routine. Austin (32) observes "It's fluctuated from time to time…For me it depends on how busy I am with work, and what other life events in general."

7.4.1   Streaks

In-game incentives like streaks motivated participants to play more consistently beyond PoGO's explosive period. The streak feature is an effective technique for retaining players and sustaining interest. The incentives awarded by maintaining a 'streak'—achieving a simple list of in-game tasks everyday—made PoGO a ritualistic practice for participants over time. For a number of participants the easiest way to maintain streaks was during their everyday errands or transit. Mason (29) reflects:

> I used to play a lot more when it first came out. Like I would go to certain locations where there was a lot of PokéStops and sit there for hours. Now, it's like if I walk to the train station say, I pick up all the PokéStops and whatever Pokémon I can get so I can get my streaks.

Many participants described their gameplay as peripheral or in the background of their days, but with the streak feature there is a sense that PoGO is a priority. Austin (32) reflects:

> I try to get on it every day, just to maintain the streaks...For the most part...I play while commuting. It's just the easiest simplest way to just get a little bit in...then I'm done for the day. You don't really need to play it for more than five minutes a day...You log on, you find a PokéStop, you find a Pokémon, you maintain your streaks and you continue on with your day.

Both Mason and Austin's language in the reflections above suggests PoGO is something they had to do. Even just for five minutes, as Austin observes and then he was "done for the day." This seems like something more than just playing PoGO to enliven a commute. By being able to review their accumulating accomplishments, the streak feature provided participants with insight into their gameplay and a greater sense of purpose, which is a sustaining change. Camilla (21) reflects, "That was awesome. It was interesting to know how many days you've been playing it for. How many things you've done…" These regular rewards can be stabilising and transformative. By

giving users targets, for example spinning one PokéStop per day or catching one Pokémon per day, this can reinforce daily habits like taking their dog for more walks, but it might also lead players to develop new habits, like walking to pick up food instead of getting it delivered. My findings suggest that in-game incentives may have been why PoGO led to increased physical activity following PoGO's initial explosive period.

7.4.2 Physical Activity

PoGO was transformative and stabilising for participants because it motivated them to be more active in their daily lives and reinforced daily physical activity. PoGO has been critically evaluated by bloggers, journalists and academics regarding the health implications of playing the game (Bobb, 2016; Howe et al., 2016; Humphreys, 2017; Roy, 2017b; Althoff et.al., 2016; Barkley et. al., 2017; Nigg et. al., 2017; Xian et. al., 2017; Pelletiere, 2018; Rettner, 2016). For example, PoGO contributed 144 billion steps to physical activity among players in the U.S. in a 30-day period, and by February 2017, PoGO players walked a total of 8.7 billion kilometers (Pressman, 2017; Althoff et. al., 2016).

Studies have shown that PoGO led to significant increases in physical activity (Althoff et.al., 2016; Barkley et. al., 2017; Nigg et. al., 2017; Xian et. al., 2017; Pelletiere, 2018; Rettner, 2016; Liu & Ligmann-Zielinska, 2017; Bonus et al. 2018 ; Howe et al. 2016; Kaczmarek et al. 2017). Professor of psychiatry and human behaviour Graham Thomas believes that PoGO is more likely to yield higher levels of physical activity than previous exergames (cited in Bilangel, 2017). This is because PoGO not only requires players to walk, but encourages them to keep walking in clever ways. For example, in January 2017, PoGO players discovered that PokéStops had a longer refresh time, meaning that they had to wait longer than before to collect more in-game items and rewards from the location. The increased refresh time prompted PoGO players to adjust their walking route, thereby walking more than usual, to reach and return to fully refreshed PokéStops (Bilangel, 2017).

I found that because participants are immersed in the game, they may not feel like they are exercising; the game nurtures a sense of curiosity and provides players with achievable goals and in-game rewards. In fact, Faye (24) describes the additional steps as merely "a nice side effect" of gameplay. Faye recounts walking five kilometres the day PoGO launched in Australia "...and I don't ever exercise. I'm not an exercising person." Mason (29) explained that he had unintentionally lost weight as a result of walking so much during the first few months of PoGO, "[Pokémon GO] was definitely the reason. It was the only extra exercise I did." PoGO drove

players to be more active because the more places players visit, and the greater distances they travel on foot, the more in-game rewards they reap.

PoGO did succeed in getting people to move more outdoors in its first two months, offering mental and physical health benefits, but it is not known to the extent these habits and experiences were sustained (Althoff et al., 2016, Howe et al., 2016, Nigg et al., 2016). Participants' experiences align with existing studies that found PoGO encouraged physical and outdoor activity. However, all of these studies were conducted within the first few months following PoGO's arrival, so this is likely attributed to novelty and nostalgia (Rettner, 2016; Althoff et.al., 2016; Howe et al. 2016; Barkley et. al., 2017; Nigg et. al., 2017; Xian et. al., 2017; Kaczmarek et al. 2017; Bonus et al. 2018).[165] Howe et. al. (2016) found that just six weeks after the arrival of PoGO, players' daily step counts had settled back to what they were prior to PoGO. This could be explained by waning interest and also the shift from dedicated play to integrated play, whereby players may not be taking any additional steps and merely weaving PoGO into daily activities.

My findings suggest that some players remained incentivised to move more long after the peak of PoGO. For example, I interviewed Ben (25) four months after PoGO's arrival, and noted that he had begun to seize more opportunities to go walking, "I [walk my dog] more often now, I used to just walk him once during the day but in the evenings my dad also walks him and I've just started to tag along...just to see if I could get anything." Natalie (23) was interviewed five months after PoGO's introduction and explained that "Since I've been playing, I've been a lot more motivated to walk into work every day." In addition, Austin (32) was interviewed seven months after PoGO's arrival and still felt that PoGO was "a reason to get out and go walking." He elaborates:

> It's a reason to get out and go walking, it also encourages you to walk around
> a lot to different areas...You're not only going outside, but you realise you
> start planning walks and then you're finding areas that are nice to walk in...I
> walk definitely a lot more than I used to...I'll walk down the road and get [a
> pizza], instead of getting it delivered.

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[165] Xian et. al. (2017) and Nigg et. al. (2017) collected data within PoGO's first month of release. In Barkley et. al. (2017) data were collected approximately two months after PoGO's launch. In Bonus et. al. (2018), data collection occurred three weeks after the release of PoGO. In Kaczmarek et al. (2017) data were collected between two and four months following PoGO's launch.

Henry (24) was interviewed eight months after the launch of PoGO and claimed "I used to really hate having a park 10, 15 minutes away from Uni and then walking. Now it's like…it's not a bad thing at all." Henry also felt that the game is an antidote to boredom:

> I just like that it makes me not bored whenever I'm waiting somewhere for something...The other day I had to drop my car at a mechanic, 15-minute drive away from my place at 8:30. I didn't really think about what I was going to do. I just walked around looking for Pokémon and PokéStops. I ended up walking seven kilometres, the game told me.

These experiences were transformative and stabilising as PoGO motivated participants to not only develop new habits, but sustain those habits over time. My interviews suggest the possibility that PoGO has the potential to intervene with, modify and enhance daily activities in the long term.

7.4.3   *Speed Restriction*

The introduction of a speed restriction in PoGO was destabilising for participants because it limited their physical exertion and made the game more difficult to integrate into everyday life. The speed restriction in PoGO prevents players from interacting with PokéStops and Gyms whilst driving so they cannot collect in-game items, and Pokémon in the area will stop spawning. This essentially makes the game unplayable when travelling beyond a certain speed.[166] The speed restriction is one way Niantic has tried to make the game safer. The speed limit for PoGO has been changed a number of times, and there are different restrictions for different in-game activities. For example, PoGO will not track distance if players are travelling faster than 10.5km/h (which means they cannot hatch Pokémon eggs), but it will allow players to spin PokéStops if they are travelling at 35km/h to collect items and Pokémon will still appear at 40km/h (JoeTheBard, 2016). The lower speeds were a response to the road accidents associated with PoGO, and reinforces PoGO as a game to be played while walking rather than while driving. Despite Niantic trying to improve player safety, there was considerable backlash as people perceived the game as unplayable (Tassi, 2016; Calvert, 2016; Ray, 2017).

Many of the participants in this study complained that they could no longer play the game while exercising or during their commute as passengers in cars, buses and on trains, which is how they

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[166] In the context of video games, 'spawning' refers to the appearance of virtual characters or objects within the game (Stevenson, 2015h).

expected to incorporate PoGO into everyday life. As a result, they felt that the speed restriction had challenged their ability to play and progress in the game. Henry (24) reflects, "I ended up starting to get less PokéBalls and stuff...when that change happened I was on holidays and so I just stopped playing a bit...they made it suck so much." The speed restriction was destabilising because by undermining the ability to combine gameplay with a fitness regimen or daily commute, players were unable to progress through or enjoy the game as initially expected.

In an observation of discussions on reddit, this was so dysfunctional for some players that they stopped playing PoGO altogether. One reddit user explains that the speed restriction completely changed the experience of PoGO by reducing what they were able to do, "[Niantic] took away my ability to use a bike or run. To me, the game turned into a sit at stops instead of get out and explore game. That ruined it for me." Another reddit user observed, "Dropping the speed limit made half of the players I know stop playing."

Some participants discovered ways to get around the speed restriction. Lily (40) claims to "take the back roads and drive really, really slowly" at times, for example. This is transformative because Lily had adopted a new habit in order to adhere to PoGO's new speed limit thereby allowing her to interact with virtual elements. However, Lily acknowledges it is problematic in real life, noting "You shouldn't use it in the car…" This suggests simultaneous destabilisation because Lily's new habit is challenging her beliefs regarding established driving laws. Comparatively, Ian's (22) local bus "stops and starts enough, and has to go slow a lot of the time", which helps get around PoGO's speed limit:

> So, the free bus actually stops and starts enough for the game to consider you're still walking. I think if you clock over 30 kilometres it considers you too fast and it stops spawning Pokémon now apparently. It stops your egg count…So, your eggs normally hatch from just travelling a distance, but they won't if you're going too fast. The free bus stops and starts enough, and has to go slow a lot of the time, and that really helps with eggs, it really helps with Pokémon spawning and you can click on them in time. PokéStops, there's so many PokéStops on the free bus and you just spin them and the next one will come up pretty quick, and you just get ready to spin them and you just keep spinning. Basically, the free bus was a good time to restock on items and stuff. All I've got to do is sit there so it's pretty easy.

For Ian, the speed restriction is not destabilising when he is on the bus; he can catch Pokémon and improve their step count (which helps hatch Pokémon eggs) when the bus is slow or idle. However, Ian suggests a level of proactivity is also required, as he has to be prepared and ready to spin PokéStops to stock up on items as they can "come up pretty quick." Des Luna (2017) revealed that PoGO players discovered a glitch in the game whereby they could bypass the speed limit. One PoGO player noticed that if you open the in-game journal and close it immediately before reaching a PokéStop, it causes the game to load, preventing it from detecting the speed you are travelling, giving players a brief window of time to collect items. The prevalence of this bypassing technique is not known, and it is only partly stabilising. Firstly, it is difficult to achieve; it requires specific timing, and still gives players only a brief moment to collect items. Just like Ian on the bus, players have to be ready and alert. Consequently, the technique cannot be done by players who want to cycle or run, because it demands them to be in negotiation with their phone. Finally, it is not effective for catching Pokémon or hatching eggs, only collecting items from PokéStops.

Some participants claimed to have stopped playing PoGO temporarily at some point because their experience was 'ruined' by the speed restriction. Other PoGO players reprimanded Niantic in hopes of getting them to change the speed limit. A Change.org petition emerged in November 2016 and was signed by almost ten thousand PoGO players, asking Niantic not to punish players and ruin the game with the implementation of a speed restriction (Ray, 2017). Consequently, Niantic has been continually tweaking the speed restriction in order to achieve safe gameplay and a satisfactory player experience (Luna, 2017; Briones, 2016; Smith, 2017; Connolly, 2019).

7.4.4   *Wellbeing*

PoGO was transformative and stabilising in terms of mental health and overall wellbeing because it gave some participants greater purpose and meaning to their everyday lives. PoGO had stabilising implications for stress and anxiety in particular. A survey of 269 PoGO players in the U.S. found 40 per cent of respondents felt less anxious leaving the house and interacting with strangers as a result of PoGO (Kogan et. al., 2017). Natalie (23) describes the role PoGO played in managing stress:

> [Pokémon GO] helped me get more motivated because this semester has been really, really bad for me. It's the hardest three months I've had in my life so being able to keep something—keep me motivated to walk every day rather than paying and [parking] on campus, putting more pressure on your finances

> and things. It's definitely benefited me in that way. It's not a huge change but it's just enough to add to it. I actually find it a good destress in the morning because trying to get [my son] out the door is argh. Go, go, go, go, go, go, go. I'll park my car and I'm like, cool. I'll just have a casual play on my way to work and by the time I get to work I'm like, cool, happy, can't wait to start the day.

Natalie observes that PoGO was not a radical change but was still a significant motivator that reinforced beneficial daily habits. It also suggests that PoGO is not just a game to do in-between things; it is really meaningful to some. Comparably, other participants observed a notable shift in their friends' behaviour, which suggests PoGO was transformative for people who really struggled with their mental health. Jackie (18) notes, "I've seen that it's made a lot of people hang out. There was people who were actually kind of depressed that I knew who started going out because the game pulled them out and they were pretty big Pokémon fans…" Jackie's reflection suggests that avid Pokémon fans are likely to have this experience because they are driven by something that is meaningful to them. Ian's (22) reflection also reinforces how powerful it is to connect people through a common passion or interest:

> [Pokémon GO] really helped some of my friends...they suffer from some mental illnesses and stuff. They don't really get out of the house but they need to. This is kind of making them get out of the house. That was really cool. We were hanging out more. We were going out more. We weren't really doing much. We were just walking around. Messing around. But we were laughing. We were having a good time. We were out there in public.

Some studies have shown that PoGO has had a more transformative impact on some players, as Ian indicated. Kato et. al. (2017) found that a PoGO player who had previously been unable to leave the house began going out everyday because of the game (p. 75). There is a correlation between social connectedness and mental health, thus a game like PoGO that facilitates social connections has the potential to influence psychological and emotional wellbeing. Since PoGO, a number of studies have emerged in this area, which extends and overlaps with the body of research around the benefits of exergames and Geocaching (Van Ameringen et. al., 2017; Kogan et. al., 2017; Kato et. al., 2017; Bonus et. al., 2018; Ellis et. al., 2020; Ku et. al., 2021).

Bonus et. al. (2018) suggest that the benefits of PoGO are contained to its introductory period "Our results hint at a moment in time where simply playing a video game might have made people happier, encouraged nostalgic reverie, created or deepened friendships, and motivated players to walk around their neighborhoods..." (p. 282). However, Ellis et. al. (2020) conducted a survey during the COVID-19 pandemic in May 2020 that suggests the benefits of PoGO are possible beyond its arrival period. The online survey included over two thousand participants from around the world who played either PoGO or *Harry Potter: Wizards Unite*. The study found that AR games like PoGO can improve mental wellbeing and sustained exercise routines for populations experiencing social isolation and distress (Ellis et. al., 2020).

My findings contribute to this new field of research regarding the impact of AR mobile games on stress, anxiety and depression and potential for behavioural interventions. Looking specifically at the ways players have integrated PoGO into their daily lives over time—as my research has begun to do—would be useful to determine more about its effectiveness as a therapeutic tool.

7.5 Reflection & Summary

This section explains how my findings provide a better understanding of the user experience of PoGO in Australia. The application of the D-E Model reveals that the experience of PoGO players in Australia is layered, with various transformative, stabilising and destabilising implications. However, many transformative and destabilising experiences went hand-in-hand and were associated with PoGO's initial explosive period, specifically the first month following its arrival on 6 July 2016. The nostalgia of Pokémon, initial magic of AR technology and ability to connect with strangers in this weird and wonderful way contributed to the experience of PoGO as a cultural moment, which was meaningful and novel for participants as urban players. Simultaneously, participants experienced frequent server issues, the AR feature interfered with satisfactory gameplay and the social aspect was viewed as intrusive or unnecessary for some.

PoGO's implementation of AR is one of the reasons it was perceived as a disruptive technology (Destreza, 2017; Louis, 2018). PoGO does not require bulky equipment like initial AR games such as *ARQuake* described in Chapter 6. The technology and video game industries praised Niantic for including the technology seamlessly into a smartphone game (Destreza, 2017; Heath, 2017). PoGO has been credited with mainstreaming AR technology as other app developers have been creating games from the PoGO model (Straw, 2016; Heath, 2017). However, in terms of the user experience, the AR feature was a fleeting novelty; participants did not express sustained

interest in the technology. This is because the feature was superficial, it did not actually enhance the experience of play, it inhibited it. This means there is still progress to be made for integrating AR technology into gaming experiences. While PoGO converges and builds on exergames, location-based games and has opened up a competitive market of AR mobile games, its game mechanics are very simple. However, most successful mobile games are simple—like *Angry Birds*—so why was *Ingress* not as popular as PoGO if it had the same game mechanics? It was simple, but it also requires players to move, which means they needed a greater incentive to play.

The Pokémon brand is what made the experience of PoGO particularly meaningful for participants. Indeed, participants were excited about experiencing Pokémon in a new way, and the focus on friendship and community within the franchise enhanced feelings of belonging and social connectedness. My results corroborate the perception that nostalgia and passion for the Pokémon brand drove PoGO's explosive popularity. However, the sense participants were part of an unprecedented "cultural moment" (Dominic, 29) in addition to the experience of social inclusion and belonging was perhaps just as significant. Indeed, PoGO encouraged new friendships and habits that are built around outdoor activity, which is beneficial for both individual and collective wellbeing.

Although there were a lot of reports about the negative impact of crowds and PoGO player negligence, most participants had positive things to say about large crowds gathering in Wollongong and preferred to play around a lot of other people. This is a stark contrast to how PoGO was portrayed in the media as mayhem (Humphreys, 2017; Frank, 2016a; Griffin, 2016; Goodman & Schriever, 2016; Louis, 2018). However, specific questions regarding crowds may have revealed otherwise. In the previous chapter, I included images of densely packed, moshpit-like crowds in Sydney. The participants I interviewed lived in Wollongong, a smaller city, and the photos I included in this chapter of people gathering at the lighthouse and Levendi Café in Wollongong show people were more spread out. Certainly, particular locations may have attracted more people depending on the local population, which increases the possibility of issues pertaining to noise, pollution, damaged grasslands, road accidents, assaults, robberies and so on.

Another interesting finding was the curiosity of players, as they were encouraged to explore their own neighborhood, which contrasts the way PoGO represented players as being oblivious to their surroundings. Indeed, distraction and harm was a big part of the narrative that PoGO was dangerous (Stanglin, 2016). Most participants did not detail concerning events due to being distracted from the game, but rather a sense they felt more connected to their hometown. Though

some did talk about near-accidents on bike paths, being cautious, using common sense, sticking to areas that were familiar and safe. One participant did admit to playing PoGO while driving and using the PokéPLUS—this was a big issue reported on by Wollongong police—but did not recount being in any accidents.

The fear of judgement some participants experienced around PoGO was partially due to its perception as a fad. PoGO was the first mobile game to be adopted at mass scale, and because people could physically see others playing—due to the haptic effect—it was obvious when the number of players decreased. Some participants engaged in concealed play as a response to this destabilising experience, a practice that would not be possible without developments in mobile technology that have made our devices smaller and lighter. But one finding that emerges clearly from the interviews is how creative players were in finding workarounds to turn something destabilising into something transformative. This was the case with 'concealed play a novel strategy that seemed to appear after PoGO's explosive period and changed the way PoGO was intended to be played. Concealed play was employed not only by my participants but was described by reddit users as well. Further research could look at whether self-conscious players utilise the PokéPLUS device to make gameplay less perceptible to others.

Besides fear of judgement, the integration of PoGO into daily life beyond its explosive period included primarily transformative and stabilising experiences. PoGO created new daily routines and made participants feel more connected to their local neighbourhoods, nurturing their curiosity and sense of adventure, and aided in everyday stress relief. The impact of PoGO on mental health in particular came up frequently when interviewing participants, which suggests that this style of game can be an important vehicle for encouraging regular walking routines.

Even though participants' gameplay transitioned from intentional to peripheral, PoGO meaningfully enhanced everyday practices and routines up to 13 months after its arrival in terms of physical activity and mental health. Because PoGO is part-exergame it did not get criticisms other video games have, such as the idea that it was contributing to sedentary lifestyles and obesity (Van Pelt, 2013; Finco & Maass, 2014; Oh, 2012a; Klein & Simmers, 2009). Instead it was celebrated for counterbalancing the health implications typically associated with video games (Althoff et al., 2016, Howe et al., 2016, Nigg et al., 2016; Orosz & Zsila, 2019). My findings are significant because even though PoGO's impact on physical fitness in 2016 dominates the literature, there has been no research indicating the extent to which these habits have been sustained. My research reveals how PoGO led to meaningful changes for participants in terms of

health and wellbeing after the game's initial peak, as participants were interviewed between four and 13 months after its launch. Participants used PoGO where they were already being physical in everyday life, but it also motivated them to be more active as well. Participants did not describe their gameplay with PoGO as 'addictive'; in fact, just like previous exergames, PoGO promoted active lifestyles and was described as a resource and support mechanism by participants.

8
Reflection & Conclusion

8.1   Key Findings & Contributions

This thesis set out to investigate the user experience of international SVOD service Netflix and the location-based AR mobile gaming application PoGO in Australia, in order to answer the question 'how can we better understand the user experience of technologies that have been perceived as disruptive?' This goal was driven by four objectives, which built on each other throughout the thesis to provide a richer and more enhanced picture of how these disruptive technologies are experienced at the ground level.

The first objective was to develop an original framework for analysing and describing the user experience of disruptive technologies. Looking at how the concept of disruption has evolved and changed over time allowed me to tease out different aspects of it. Analysis of the discourse on disruption and technological change from popular media, academic sources and standardised definitions from different industries and fields were considered when examining what users told me about their experience. During interviews with participants, I observed patterns in user behaviour, whereby thoughts, feelings and practices were being reinforced, undermined or dramatically shifting when users interacted with Netflix or PoGO. The three concepts of the D-E Model—stabilisation, destabilisation and transformation—are connected to the literature yet rigorously grounded in what users are communicating about their lived reality.

The D-E Model makes a significant contribution to knowledge because it offers a more nuanced discussion of disruptive media technologies by including the user's point of view. Until now, research on disruptive media technology users focussed on generalisations about consumer practice in order to help businesses design and market their products and services. With the D-E Model, we can better understand the user experience, because it has been informed by the user experience.

The second objective of the thesis was to consider the previous technologies that led to the emergence of Netflix and PoGO and how they contextualise the user experience. For Netflix, the history of television and piracy was illuminating; in particular, technologies of agency and the

practice of binge-watching revealed the desire for more autonomy among viewers, driving the shift from communal, to independent and eventually personalised experiences. For PoGO, the unique combination of elements—mobile gaming, physical activity, digital mapping and AR—in addition to the longstanding themes of community and friendship in Pokémon games and the franchise's position in popular culture, helped to explain why PoGO was experienced as a meaningful cultural moment. Reviewing the technological and sociohistorical contexts for each case study, together with insights from users themselves, were importrant for bringing an anthropological dimension to the research.

The third and fourth objectives included examining why Netflix and PoGO have been perceived as disruptive technologies and comparing this discourse with the ways in which participants integrated these technologies into everyday life. The focus on how these technologies are perceived helps move away from technologically deterministic arguments about the broader social, cultural, economic and political claims about their impact. The D-E Model helps to review the perception of these technologies versus how they are experienced. By observing online discussions, talking to Australian Netflix and PoGO users directly through interviews and participating in walk-alongs, I found that the user experience diverges from some of the established perceptions identified from the literature and public discourse.

Netflix has been perceived as a disruptive agent in Australia; the assumption was that its swift adoption following its arrival in March 2015 radically shifted Australian's viewing habits, and what they perceived as television. However, I discovered that this shift had been well underway before 2015, illustrated by the prevalence of internet piracy and VPN usage in Australia prior to the arrival of Netflix. For my participants, Netflix was stabilising, suggesting there was no singular moment that Australian viewing habits collectively shifted. Despite destabilising experiences like the paradox of choice produced by Netflix's vast catalogue and mothers struggling to regulate their children's screen time, participants overwhelmingly experienced Netflix as a continuation of their ever-evolving viewing practices. Specifically, participants who engaged in internet piracy were eager to embrace technologies that provide access, autonomy and personalisation at an affordable price point. Even for the few participants who did not pirate and still watched television often, Netflix merely supplemented their viewing habits, which does not indicate a dramatic shift. However, there were some transformative implications among Netflix participants in terms of its provision of additional motivations for viewing, especially for those with a preference for overseas content and frustrated by the Australian TV delay.

There is a perception that Netflix is disruptive because it invented binge-watching, but it is more accurate to say that the streaming service made this existing practice more convenient. Some traditional views of binge-watching consider total viewing time a reliable measure, however this assumes viewers are always focused, which is not the case. Everyday binge-watching practices are not necessarily problematic because users are not always engaging in focussed viewing. There needs to be a greater focus on how people are using their attention in the discourse around binge-watching. People may be streaming something in the background, which drives up their screen time data even if they are doing other tasks and not watching closely or at all. My findings also contribute to the limited research on comfort TV, utilised by my participants in a stabilising way for background viewing and to mitigate the paradox of choice. The phenomenon of comfort TV needs more attention, in particular how it helps people de-stress and fall asleep, especially as the term has become popularised during the COVID-19 pandemic.

From the users' point of view, Netflix is not the same as commerical television. There is some overlap in terms of motivations for viewing, as both broadcast TV and Netflix are used for leisure and relaxation, or wanting the sound of company. However, autonomous scheduling and having no ad-breaks made the viewing experience with Netflix very distinct from television. Another major difference was the feeling that participants needed to self-regulate, rather than relying on the linear structure of television. A number of participants identified that they have breaks after periods of focussed binge-watching, which could be a form of self-regulation but this requires further research as it has not been discussed in the literature on binge-watching.

PoGO has been perceived as a 'game changer' and celebrated in the tech world and mobile gaming industry for mainstreaming AR. Yet, this was ultimately a destabilising aspect of PoGO in terms of the user experience and there is progress to be made for this new genre of games. According to participants, the novelty of the feature wore off quickly once they realised it drained their smartphone battery, made it more difficult to catch Pokémon and was unpleasant due to cognitive strain or fear of judgement. In the beginning, PoGO dominated the media with reports of crimes, injuries and deaths, which painted players as negligent, yet participants expressed being more mindful of their local neighbourhoods. This perception is perhaps why an ongoing destabilising aspect of PoGO was the fear of judgement. As more games appear that involve public play, studying why some players feel self-conscious, how it impacts their gameplay and the ways they manage this are interesting areas for further research.

PoGO's popularity seems to be driven by the Pokémon brand, because there were predecessors with the same fusion of technologies and concepts that did not launch an explosive global phenomenon. While nostalgia and the enthusiasm for experiencing Pokémon in a new way was certainly a factor for participants, being involved in an unprecedented cultural moment was perhaps just as significant. This transformative experience was in part due to the sheer volume of people playing or talking about the phenomenon. However, what participants revered most—as urban players—was the sense of belonging and social inclusion from connecting with friends and strangers through a shared passion for Pokémon. Simultaenously, there were destabilising aspects during this arrival period of PoGO; participants experienced frequent server issues, people in rural areas felt excluded and the social aspect was viewed as intrusive or unnecessary for some.

PoGO was also praised by scholars for getting people to be more physically active between July and September in 2016. My results illustrate what the user experience of PoGO in Australia looked like after this introductory period, which is absent in the literature. Even though participants' gameplay transitioned from an intentional to a more peripheral experience, PoGO encouraged participants to be more active up to 13 months after its arrival. PoGO meaningfully enhanced everyday routines by making participants feel more connected to their local neighbourhoods, nurturing their curiosity and sense of adventure. However, it is unclear to what degree rural players had this experience, if at all, which is worth investigating.

PoGO was both transformative and stabilising as it created a totally new gaming experience that became a resource and support mechanism. The game aided in everyday stress relief and overall wellbeing for participants. These findings contribute to the body of research that has emerged looking at the impact of AR mobile games and mental health. Given the increase of PoGO players during the COVID-19 pandemic, as the game was found to alleviate social isolation, it is likely that similar games which encourage outdoor activity will continue to emerge.

The thesis demonstrates that the D-E model is useful for improving our knowledge of user experiences with media technologies that have been perceived as disruptive. Because emerging technologies are frequently labelled as disruptive, there is a need for additional tools like the D-E Model. The model synthesised scholarly literature on disruption with empirical evidence and translated them into a series of concepts and principles for inspecting the user experience of Netflix and PoGO. By thinking about and discussing user experiences in terms of their stabilising, destabilising and transformative implications, I gathered greater insight into the overlapping and varied experiences participants had and demonstrated that the user experience can differ significantly from perceptions in the press, industries or academia.

My findings may extrapolate to a broader national experience, but they are not definitive, as they are largely informed by a small group of participants in Australia. This means that in other cultures and for other users—particularly those in rural and remote areas where internet connectivity is less reliable or fast—the results might be different, and as such the D-E Model a tool for exploration not generalisation. The model brings forward investigative cues for media, communications and cultural studies scholars as well as professionals in the technology industry, in particular UX design, who are concerned with how users think, feel and behave when incorporating emerging technologies into their everyday life. Future research on disruptive technologies could include wider sampling and adding mixed quantitative methods. With access to the algorithmic analysis of major companies like Niantic or Netflix, one could imagine an incredibly powerful study that mixes the top-down view with the more grassroots experience of this thesis.

8.2   Thoughts About the Future

The D-E Model can be applied to understand the user experience during the introductory period of disruptive events or technologies. Indeed, both Netflix and PoGO were looked at during their arrival and integration periods in Australia. The model would be useful for investigating the adoption of self-driving cars, for example, which may be integrated into daily life at a large scale. The D-E Model could also be used in contemporary disruptive situations, such as video conferencing in the COVID-19 era. Video communications software Zoom, for example, is not a new technology, however its widespread use came out of a disruptive event, a global pandemic. Future research could therefore use the D-E Model to not only look at specific technologies that have been perceived as disruptive, but disruptive experiences that have an impact on everyday technologies. As was clear from the participants in this study, the way we live our lives—the way we work, communicate and socialise—shapes the manner in which specific technologies are used and the meaning they hold for us.

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Appendices

Appendix 1 — Netflix Digital Ethnography Field Notes

Observation & Summary of r/Netflix Subreddit
16 March 2018

What three threads had the highest level of engagement (upvotes and comments) in the past week?
Due to a high level of activity on this subreddit, threads were observed within the following time
period 2 March - 16 March 2018.

The following three threads had the highest level of engagement:

Thread A — 2 March - 2068 points, 92% upvotes, 240 comments
- https://www.reddit.com/r/netflix/comments/81d3la/joel_edgerton_says_bright_was_for
  _the_people_not/
- This thread involved a discussion related to a critic's review of the film "Bright", which
  is on Netflix.

Thread B — 4 March - 994 points, 86% upvoted, 123 comments
- https://www.reddit.com/r/netflix/comments/81vk4w/rant_netflix_user_experience_and_
  user_interface/
- Critique regarding Netflix's platform design as a poor interface for viewers.

Thread C — 5 March - 4578 points, 94% upvoted, 114 comments
- https://www.reddit.com/r/netflix/comments/8238ku/netflix_has_won_its_first_oscar_fo
  r_icarus/
- Announcement claiming that Netflix has won an Oscar for one of its documentary
  features, *Icarus*.

What types of content/discussions are appearing in these threads?

Thread A
- The most upvoted comment got 227 points, and noted that they had read reviews that
  claim the film to be one of the worst ever made, to which they claim it has been unfairly
  treated. The user provided their own review of the film in terms of production and

character development, including both positive and negative remarks. They included feedback on how they feel the plot could have been better.

- Most comments/Most people commenting on the thread were expressing a negative perspective of film critics.

- One user claimed that critics tend to be failed or unsuccessful professionals in the area they are critiquing, drawing on a relevant example.

- One user claimed that there is no real standard for becoming a critic.

- One user defended film critics by providing a detailed list of how critics operate and value films. The user noted critics' knowledge of filmmaking, inherent subjectivity, and a number of defenses to general perceptions of film critics.

- One user recommended a resource called 'Cinemascore' for people to use for film ratings and reviews, that are generated by varying measurement systems depending on the film. This was positively responded to by one user. Another user detailed their experience with the resource.

- One notable comment with 102 points that was highly engaged with was discussing the role of Netflix in including films in their catalogue, claiming "just like any other studio, there will be hits and misses".

- One user responded claiming that Netflix offered too much "comfort food", comparing the service to the US network channel Showtime. The user stated "Showtime has a bad reputation and continuing a good show until there's nothing left. But they probably don't give a shit about quality as long as everyone is still watching."

- One user claimed "I agree with this sentiment...In a scramble for content they are not focusing on quality. House of Cards definitely felt like a real contender, but they lost viewership on the third season and through."

- One user noted that no other streaming service is trying to compete for Hollywood blockbuster films.

- One user stated that Netflix's film division was poorly managed, and as a result they are focussing on tv series instead.

- One notable comment by a user emphasises this notion of 'background noise', the user stated "Most of Netflix's original content feels like it was created to have on in [the] background while you're on your phone." This comment was highly engaged with.

- One user added in response "I used to watch everything, but the tv market has become over saturated and I just stick with what interests me."

- Most comments involved users expressing their opinions on a variety of Netflix films and tv series.

- One user expressed dismay over the intensity of discussion surrounding this film, and took a neutral position.
- One notable comment was in relation to the different practices around viewing films and the impact of different media on viewing experiences, "Essentially what differentiates "theater" movies from "tv" movies is the inconvenience factor. You have to get dressed, go out, look for parking, shell out money for tickets and snacks, then sit for two hours in a seat (which is by definition less comfortable by your couch). So it's expected that people have different standards for them." This user perceives that people's expectations shift according to their place of consumption, noting comfort as a significant factor.
- Many users agreed that critics typically provide negative reviews for superhero films.
- The overall tone of the thread was a highly negative critique of film critics, and general debate over their position and function in society.
- The thread included highly critical perceptions of film critics, and significant insight into users' own personal experiences that were also expressed in a critical manner.
- Most users were providing neutral reviews of the film in question, offering a mix of both positive and negative opinions in their comments regarding storyline, actors, script, and camerawork.

Thread B
- The user who posted this thread claimed their mode of expression was a 'rant', titling the post "Netflix User Experience and User Interface is not only awful, it is not intuitive and has not been redesigned in years." The user detailed their distaste with the rewind function when streaming Netflix on their Roku device.
- The most upvoted comment was an endorsement of the Playstation 4 for streaming Netflix.
- It immediately became clear after a number of comments that the critiqued rewind function is specific to the Roku device.
- Most comments in the thread involved a general discussion of the Netflix interface in relation to the devices used for streaming.
- Many users commented endorsing their experience with The Playstation 4 console for Netflix streaming.
- Many users discussed the difference in user interface in contrast to Hulu, HBO and Amazon Prime.
- Many users negatively critiqued the streaming service Hulu.

- Amazon Prime received mixed reviews, with one user claiming Netflix should follow its design, but a number of others claim that it delivers a poor user experience.
- Many users heavily critiqued the autoplay function on the Netflix platform.
- One user identified this is a fairly recent feature "They didn't used to do this. They used to just cycle through a few stills, no music."
- One user claims to shift their content-searching habits as a result of this feature "Tis but a dream. I just never slow down enough for them to load"
- One user noted "This absolutely destroys the user experience. Its like a never ending stream of pop up ads. You can't read a description without auto play. You can't discuss what you want to watch without auto play. Netflix willfully makes the user experience worse, with no option to turn it off."
- An anomalous comment - one user claimed the autoplay feature did not bother them.
- One user claimed that this decision to include autoplay features for their content makes the experience less personalised and more commercialised "The worse part is Netflix UI used to be much more intuitive and functional. After the change, I feel like I'm trying to be sold on content more than being genuinely shown content I will enjoy."
- Many users discussed the difficulty of finding something to watch; however, the general tone of the thread displays that this is not a concern specific to Netflix, but a common experience across most streaming platforms.
- Multiple users claimed that the Netflix interface has become a training tool for speed browsing.
- One user critiqued Netflix's categorical system and provided feedback on how it could be improved. "I still wish they'd break apart certain categories. For example, Science Fiction and Fantasy shouldn't be together; Comedies and Stand-Up routines should be together. Netflix has a lot more movies than what they are willing to display. Often, I have to use search in order to find the movie. Don't get me started on the stupid auto-play feature. If all it did was auto-play a trailer, I might be willing to accept it. This complaint isn't limited to Netflix (as others have the same issue): I wish they could settle on which category a movie should belong to. When movies are displayed in 4 categories, it gives the appearance that Netflix has a very limited selection of movies."
- The general tone of the thread was that Netflix is regarded as the most user-friendly streaming platform in terms of connection, speed, quality, and functionality when using the PlayStation 4 console.

Thread C
- This post was a single statement by a Reddit user notifying others that Netflix had won an Oscar for its documentary *Icarus* that can be streamed on its platform.
- The most upvoted comment with 768 points responded to the post, "And it already been edited to say 'Academy Award Winner'"
- It appears that there was false reports of Netflix receiving an Oscar, when it was in fact an Academy award.
- *Icarus* did win an Oscar, but this was awarded to the film's production crew, not Netflix.
- One user claimed, "Netflix didn't do shit except buy the rights to the movie."
- The original poster realised their error, and commented "Shoot. My headline is a lie?"
- A number of users humoured this realisation with witty banter and sarcastic comments: "Yes. You're a lying bastard and you'll never recover from this. It's over.", "The police is on their way.", "Consider your career in journalism, over.", ".#Fake news"
- This thread was relatively short and included some tangential comments.
- Some users began discussing other television series, and other awards that the film had won.
- Multiple users endorsed the film.

Reflection and Analysis points

What are the key themes or patterns/what stands out or is anomalous?
Patterns
- Platform Design: User interface, autoplay feature, finding content to watch
- Critique: autoplay, film critics
- Device: Endorsements of PlayStation 4
Anomalies
- One user claimed the autoplay feature did not bother them.

How can we think about the activity/content in terms of disruption?
- The activity on Reddit threads will be useful in discussing the way people engage with other users through online channels, to discuss perceptions and experiences relating to Netflix. The activity on Reddit among Netflix users is highly critical.
- The activity can be considered a form of stabilisation for players - where they can express their frustrations, opinions, and excitement - an accessory to their passive consumption.

- Viewers perhaps find comfort in these spaces, as Netflix is a global service, and it is within digital domains that they can connect with others to discuss their thoughts and experiences.

Further Notes

The general tone of discussion on Reddit is highly critical and engaged with the topic. There seems to be a rapport among users who wittily bounce off each other and often engage in humorous banter. In comparison to activity on Twitter which appears to be more fragmented and less involved in discussions. This is likely to do with the type of channels being observed. The subreddit was created by viewers, and the Twitter handle is a verified Netflix account.

Observation & Summary of r/Netflix Subreddit
25 May 2018

What three threads had the highest level of engagement (upvotes and comments) in the past week?
Due to a high level of activity on this subreddit, threads were observed within the following time period 18 May - 25 May 2018.

The following three threads had the highest level of engagement:

Thread A — 19 May - 1336 points, 93% upvotes, 330 comments
- https://www.reddit.com/r/netflix/comments/8kk8it/netflix_cancels_13_reasons_why_season_2_premiere/
- This thread was titled "Netflix cancels '13 Reasons Why' Season 2 premiere after school shooting". It linked an article that reported on the Santa Fe High School shooting in Texas. The event left ten victims dead, and was followed by an announcement from Netflix, that it would cancel the 13 Reasons Why Season 2 premiere event set to take place later that day in Los Angeles.
- The first season of the show received criticism due to its depiction of sensitive issues, namely suicide. Some argue that the show glorifies suicide, and that it does not adequately - or at all - address mental health.
- The thread generated discussion around the depiction of suicide on the show.

- One comment with 145 points received quite a few responses, and stated "The Suicide Prevention Center's outline for what is okay to portray in the media regarding suicide specifically states not to show the actual suicide. This show completely disregarded that for the shock factor. It shows the show runner's disrespect for the topic if they don't follow what the SPC has said is appropriate." The Reddit user perceives that the expression of the story in 13 Reasons Why, illustrates the production team's contempt for the topic of suicide. This statement generated a discussion around the link between media portrayal of suicide and its impact on audiences. One user noted that during the first season, there was an increase in internet searches for the suicide method that was graphically depicted in the final episode, and additionally "some countries have reported an increase in self-harm and suicide using the method depicted among the age range in a time period which corroborates with the series' release. Not enough to determine a trend but yeah the agencies would say there's enough to be concerned". Another user responded to a critique about whether claims about links between media portrayal suicide and suicide are based on scientific studies, to which a user responded "There have been studies showing that suicide being shown graphically in the media has been linked to copy cat suicides. Yes, their claims are based scientifically".

- The discussion in the thread was deeply engaging with the final episode of the first season where the protagonist takes her own life.

- One user claimed that the scene made suicide look 'easy', "In the show's suicide the girl takes a razor blade from wrist to elbow on both arms. No hesitation cuts, no screaming, just tanks a razor down each arm. They made it look a lot easier than it is."

- Another user agreed, suggesting that this depiction was unexpected, "it seems like I'd expect more pain, less calm, more screaming, and even last minute panic and regret."

- One user supported the depiction, claiming that by showing the suicide in graphic detail is the counterpoint of abstraction and romanticisation, "Intuitively I'd think that the failure to depict the suicide and keeping it abstract is what romanticizes it. The shows depiction was uncomfortable and brutal. It showed that the suicide wasn't peaceful, and it didn't bring reprieve." This user perceived the scene was not 'peaceful', somewhat conflicting with other comments where it was perceived as calm and easy.

- Another comment heavily criticised the show's first season, claiming "The whole first series is about a person committing suicide out of revenge and having influence over people when they are dead... that is romanticizing suicide; the idea you can 'punish' people by killing yourself".

- There was a debate in the thread around whether the program was 'allowed' to show - without obfuscating any details - the scene of someone taking their life.
- One user linked an article that discusses the issues mental health professions have with the show, and shared an excerpt from the article to contribute to the discussion on the Reddit thread: "13 Reasons Why can be very hard, even traumatizing, to watch….There are ways to tell a story about suicide that are compassionate and do not trigger high levels of emotional distress. 13 Reasons Why graphically portrays an act of suicide, a portrayal which is not safe for viewers and does not fit within best practices for media representations of suicide."
- An additional discussion began about season two among viewers.
- A significant number of users commented that they had not seen the show, sharing the perceptions they have heard about it, and asking whether it is worth watching.
- Overall, the tone of the thread was a respectful and critical discussion with balanced views on the depiction of suicide in 13 Reasons Why.

Thread B — 22 May - 19,861 points, 90% upvoted, 949 comments
- https://www.reddit.com/r/netflix/comments/8lapxs/matt_groening_here_wanted_you_all_in_rnetflix_to/
- This thread had a significantly high level of engagement among users in the subreddit, as it was led by Matt Groening, creator of the popular television series The Simpsons. Matt Groening posted, from his personal Reddit account "Matt Groening here! Wanted you all in r/netflix to be the first to see what I've been working on…" and included 3 links to images that show what appears to be cut shots of unknown cartoon characters, but enough detail is seen for people to identify the Groening's signature, yellow skinned cartoon illustrations.
- It appears that Groening created the post to promote and generate hype for his upcoming series, Disenchantment, that will be hosted on the Netflix platform.
- The most upvoted comment was "I don't know what this is, but I'm on board!" with 5222 points. Two users responded explaining the post was in promotion of Matt Groening's upcoming cartoon series, Disenchantment. One user shared an article that provided details of the upcoming show, including an excerpt with a quote from Groening himself "Disenchantment will be about life and death, love and sex, and how to keep laughing in a world full of suffering and idiots, despite what the elders and wizards and other jerks tell you." This comment received 2861 points.
- Most users express their eagerness regarding upcoming release dates of shows.

Notable comments

- With 1885 points, "Any dates I need to be marking on my calendar?" it appears that knowing a specific release date is of great interest to users in this subreddit.
- With 195 points, "I need Futurama back on Netflix!" it seems this announcement has triggered a response from fans of Groening's work, who are eager to access more of his content on Netflix.
- With 85 points, "Matt, super excited about this, I love your work. You are teasing the crap out of us though, when will we get more information?
- With ten points, "Yeaaah, something to binge".

A notable discussion that was part of this thread, was around watching shows when falling asleep:
Screen Shot 2018-06-01 at 1.01.29 pm
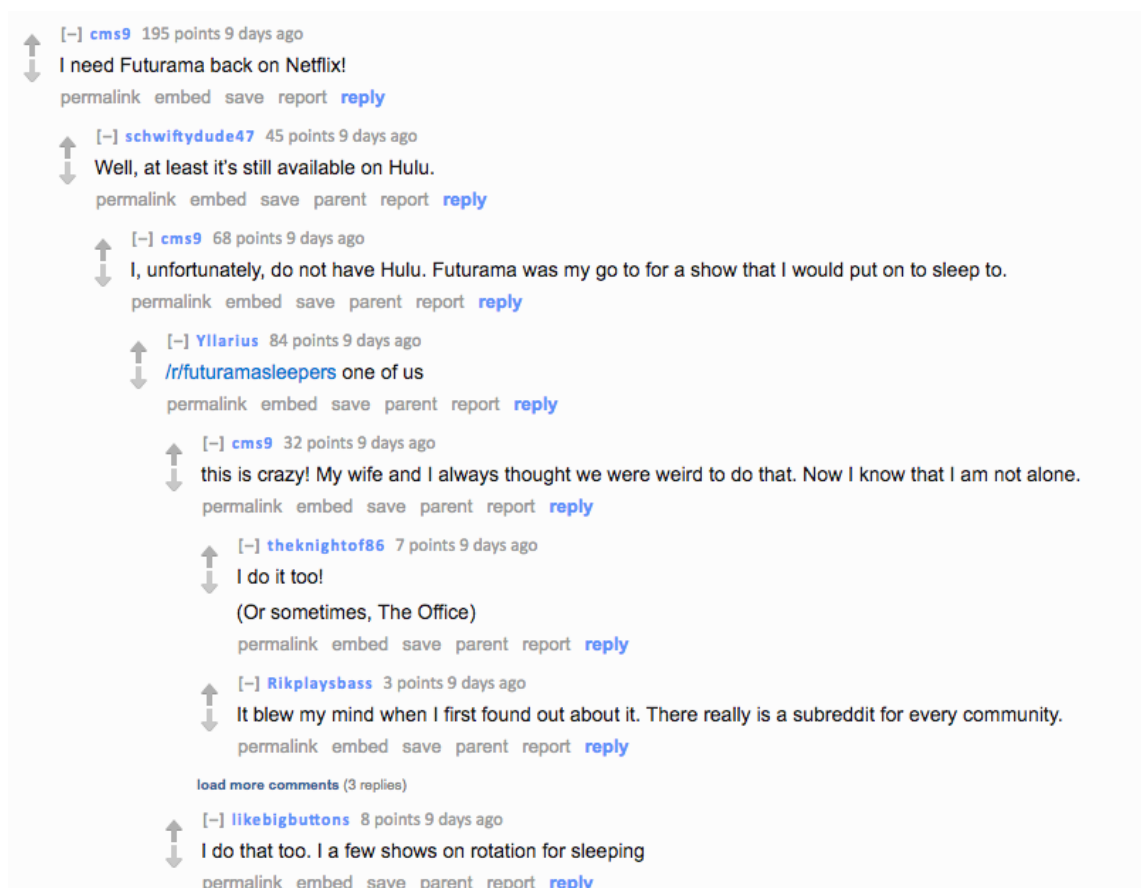
- One user expresses disappointment that Futurama is not on Netflix, as they enjoyed falling sleep while it would play. The first response was a link to a subreddit, that is for other Futurama fans who do this. This suggests that there are a number of people - especially as there is an entire community/subreddit dedicated to it - that find falling

asleep to groening's show, Futurama, soothing, calming, or relaxing. Another comment noted that they have "a few shows on rotation for sleeping" suggesting that, this may be a common practice for consumers of streaming media.

- The nature of the discussion in this thread involved anticipation, excitement, curiosity and enthusiasm.

Thread C — 23 May - 1072 points, 95% upvoted, 56 comments
- https://www.reddit.com/r/netflix/comments/8lk544/netflix_drink_it_in_peasants_disenchantment_the/
- Netflix: "Drink it in, peasants! @Disenchantment, the latest series from The Simpsons creator Matt Groening, premieres August 17 on Netflix."
- The top comment on this thread had 178 points, and expressed excitement for the upcoming series to be hosted on Netflix, Disenchantment: "I don't think I've ever been as excited for a Netflix show as I am for this one."
- Users speculated on Matt Groening's new show. One comment, with 119 points, said "I'm excited, I just hope it's more like Futurama than The Simpsons. They have somewhat different styles of jokes.. but something in between would be amazing."
- Many people were discussing their opinions on Groening's previous creations, namely Futurama and the Simpsons. One comment, with 54 points, stated that for the show to be more suitable for Netflix, it needs to be less like the Simpsons "Noo, it needs to be less Simpsons-esque. This is a Netflix show."
- The overall tone of the thread was excitement, curiosity and speculation about the yet to be released series, Disenchantment.

Reflection and Analysis Points
Themes
- Curiosity, excitement, speculation, enthusiasm
- Critique
- Content

How can we think about the activity/content in terms of disruption?
- The way fans express their thoughts on sensitive issues to generate a healthy discussion around what is acceptable and unacceptable for Netflix content, based on their viewing experience that some have described as emotionally distressing and triggering.

- Netflix sleepers - users who stream shows to fall asleep… psychologists might argue that screen time is disruptive when trying to sleep, but users express this practice as a stabilisation technique to assist them in falling asleep.

Further notes
- When investigating Netflix, discussing the popular and controversial content on Netflix becomes inherent.
- Link between content and platform, where user speculated that Disenchantment needed to be less Simpsons-esque to be a Netflix show.

Appendix 2 — Pokémon GO Digital Ethnography Field Notes

Observation & Summary of r/Pokémongo Subreddit
2 March 2018

What three threads had the highest level of engagement (upvotes and comments) in the past week?
Due to a high level of activity on this subreddit, threads were observed within the following time period 23 February - 2 March 2018.

The following three threads had the highest level of engagement:

Thread A — 28 February - 2088 points, 96% upvoted, 138 comments
- https://www.reddit.com/r/Pokémongo/comments/80wkr3/i_think_there_should_be_a_way_to_tell_from_a/
- Discussion about players being able to see, on the in-game map, whether there is a raid nearby, and if there are players nearby wanting to attend to raid. Similar to a lightning feature that notifies players when a gym nearby is under attack.

Thread B — 1 March - 1247 points, 94% upvoted, 40 comments
- https://www.reddit.com/r/Pokémongo/comments/811mwi/art_what_you_wish_to_find_at_nights_vs_what_you/
- Two AR screenshots of a Pokémon that a user has published with the caption "what you wish to find at night vs. what you actually find". This type of expression is a common internet meme.

Thread C — 2 March - 1217 points, 95% upvotes, 115 comments
- https://www.reddit.com/r/Pokémongo/comments/81a2ag/i_live_in_the_desert_never_thought_it_would/
- A player has posted a screenshot of their favourite Pokémon they have caught for the first time. They explain this is a significant moment for them as they live in the desert and thus, due to regional discrimination, catching Pokémon is not as easily accessible or frequently exciting.

What types of content/discussions are appearing in these threads?

Thread A

- The most upvoted comment agreed with the post, claiming that the app should include additional features to enhance the experience of raids, and detailed two examples that they think would be useful.

- Most people commenting on the thread were suggesting different ways Niantic can enhance raids so that it is more appealing, exciting and sociable for players. These comments typically included suggestions of features that tell players how many other players are around.

- One user commented on the role of raids in meeting new people, and claimed they would like to do it more often for this reason. One user humoured this response by making a joke about two players they met at a raid being best men at their wedding, suggesting the perceived nature of the game's social elements as casual and fleeting.

- A small number of users disagreed with the post, claiming that some features would be taken advantage of.

- A small number of users commented stating that they are a part of third party websites or groups on Facebook, as a way to organise raids with their local gaming community. Some users commented that it would be more convenient for this to be possible within the app itself.

Thread B

- The top comment in this thread is endorsing the post, claiming that they "love" the Pokémon in the image, and that they are currently trying to evolve one.

- Most of the comments involve general discussion about the Pokémon in the image posted, with an overwhelmingly positive evaluation of its qualities and stats.

- The overall tone of the thread was friendly and useful. Users were responding to questions posted by others with helpful advice, explaining how to achieve certain evolutions of Pokémon and other in-game incentives.

Thread C

- The top comment on this thread was by the same author as the original post. They were explaining their two-month journey that led to them evolving their favourite Pokémon. The user claimed they lived in the desert, and it is known that it is more difficult for players in regional areas to advance in the game, due to less pokestops, spawns, and raids in these places. The user stated they were excited by the experience and eager to share it with other players.

- The author of the original post engaged with most commented in the entire thread.
- One user commented claiming they lived in the same region and had experienced similar difficulties.
- One user commented congratulating the player, expressing that they had "true Pokémon trainer spirit - never giving up".
- Another notable comment was "every Pokémon is somebody's favourite Pokémon and i think that's beautiful". A small number of people replied to this comment, noting it was a heartwarming perspective.
- In response to a user recommended a park for gameplay, one player responded they had been to this location, but due to their social anxiety, but had to leave because of the crowds of people. They went to a nearby neighbourhood instead.
- A small number of users mentioned they walk their dog when they play Pokémon GO.
- One player claimed that during the first few weeks of the game's release, vendors would be set up in a specific place in their local neighbourhood selling food, drinks, and Pokémon merchandise.
- One user noted that water canals are known for spawning this particular type of Pokémon. One user responded that despite their close proximity to a canal, they find it dark and frightening to play near at night. They also mentioned the difficulty being able to see at night after when staring at your phone screen. The original commenter added they would not go near one at night, in fear of slipping and falling, noting that they believe it is dangerous as you are distracted looking at your phone. They claimed that the PokePLUS remedies this issue during daylight hours.

Reflection and Analysis Points

Themes

- Awareness: safety, distraction & self-awareness - sensory disruption (light from screen disrupting vision at night)
  - Game Design
  - Opinion and Evaluation
  - Lifestyle (walking the dog)
  - Health (mention of mental health)
  - Commercialisation (vendors selling refreshments and merch)
  - Sociality: community, web, humour
  - Location, environment, weather

- PokePLUS

How can we think about the activity/content in terms of disruption?
Sensory disruption (light from screen disrupting vision at night)

Further notes
The general tone of discussion on Reddit is friendly and community-based, in comparison to activity on Twitter which seems more staggered and abrupt. This is likely to do with the type of channels being observed. The subreddit was created by fans, and the Twitter handle is a verified account, where users speak and respond directly to a representative of Pokémon go, and there is less focus on engaging with others.

The activity on Reddit threads will be useful in discussing the way people engage with other players through online channels, to discuss perceptions and experiences relating to Pokémon GO. The activity can be considered a form of stabilisation for players - where they can express their frustrations, opinions, and excitement - an accessory to their gameplay. Players perhaps find comfort in these spaces, as Pokémon GO is a global phenomenon, and it is within digital domains that they can connect with others to discuss their thoughts and experiences.

Observation & Aummary of r/Pokémongo Subreddit
11 May 2018

What three threads had the highest level of engagement (upvotes and comments) in the past week?
Due to a high level of activity on this subreddit, threads were observed within the following time period 4 May - 11 May 2018.

The following three threads had the highest level of engagement:

Thread A — [idea] 5 May - 4837 points, 93% upvoted, 148 comments
- https://www.reddit.com/r/Pokémongo/comments/8h84cw/idea_your_buddy_Pokémon_should_give_you_an_alert/
- A POGO player posts an idea they have for the game: "your buddy Pokémon should give you an alert whenever it senses a nearby Pokèmon in it's evolutionary family (Dragonite,

Dragonair, Dratini)"

It generated a discussion about the benefits and disadvantages of this proposed feature.

Thread B — [AR shot] 6 May - 2276 points, 96% upvoted, 43 comments
- https://www.reddit.com/r/Pokémongo/comments/8hcayr/what_we_found_in_the_eye_of_the_storm/
- A POGO player has posted an AR screenshot. The image includes a girl "taking a photo" of a Pokémon on an empty street in what looks like a rural area.

Thread C — [Discussion] 9 May - 1589 points, 94% upvotes, 186 comments
- https://www.reddit.com/r/Pokémongo/comments/8i7aw6/gyms_can_become_useful_in_the_game_if_they_helped/
- A POGO player posts a discussion thread: "Gyms can become useful in the game if they helped power up our Pokémon". It generated a discussion around this idea for the game.

What types of content/discussions are appearing in these threads?

Thread A
- The most upvoted comment had 955 points and seems to disagree with the proposed idea.
- A significant number of users expressed disinterest in this idea.
- Some users began suggesting other ideas they believed to be better or fairer.
- One user commented on the thread asking for advice around their play as they live in a rural area. This generated a discussion between them and another user. The user claimed they will always be at a disadvantage due to their location. The user suggested installing Ingress as a way to mitigate the low spawn rate and number of pokestops in rural areas. Once you are at level 10 in Ingress, you can submit pokestops yourself - a way/solution to get Niantic to put a pokestop near you.
- A small number of users agreed with the idea.

Thread B
- The top comment in this thread received 59 points and was endorsing the image and asking what device was used to take the photo (it was an iPhone 8).
- Every comment on this thread expressed awe and wonder in response to the image, and celebrated the person who had posted it.
- Users in the thread noted the AR+ feature as the reason it was such an effective image.

Thread C
- The top comment on this thread had 609 points and agreed with this idea.
- A significant number of users expressed disappointment or discouragement to play due to the gym system in Pokémon GO
- A small number of users discussed different ways the gym system could be better and more beneficial or interesting for players.
- A small number of users expressed alternative ways to achieve a similar outcome.

Reflection and Analysis Points

Themes
- General experiences - e.g. difficulty catching Pokémon
- How Niantic can improve gameplay/game design - AR, gym system
- Discussions
- AR shots
- Ideas
- Critique
- Regional discrimination - mitigating lack of pokestops by playing Ingress and submitting a location to Niantic

How can we think about the activity/content in terms of disruption?

The discussion in Reddit thread A may be a useful way to talk about disruption and stabilisation. The disruption being that players in rural areas do not and cannot have the same experience as players in metropolitan areas. In this example, one player suggests to another to mitigate the lack of pokestops and spawns by playing Ingress, getting to level 10 and submitting a Pokestop to Niantic that is nearby to them. They did not express enthusiasm in how successful this process would be, however.

Further notes

The general tone of discussions on popular reddit threads were back and forth between players about their recent thoughts, perceptions and experiences of the game, and how the game could be improved.

Appendix 3 — Netflix Participant Metadata

There was a total of 14 participants for the Netflix case study, of which males and females were equally represented. The participants' ages ranged from 19 to 50 years, with a mean age of 33 years. The average interview duration was 64 minutes. Details for each individual participant (represented by pseudonyms) are detailed below.

Participant		Age	Gender	Nationality	Interview date (2018)	Interview duration
1	Gus	25	M	Australian	18 July	1 hr 22 min
2	Chiara	28	F	Australian	25 July	1 hr 10 min
3	Jess	24	F	Australian	25 July	48 min
4	Dean	24	M	Australian	26 July	1 hr 13 min
5	Kath	54	F	Australian	29 July	47 min
6	Fox	40	M	Norweigan	3 August	1 hr 31 min
7	Indigo	30	M	Australian	3 August	1 hr 1 min
8	Aris	33	M	Australian	8 August	49 min
9	Lee	50	M	Australian	17 August	40 min
10	Matt	25	M	Australian	18 August	55 min
11	Hannah	25	F	Australian	19 August	1 hr 2 min
12	Bianca	40	F	South African	2 September	1 hr 8 min
13	Emily	42	F	Australian	3 September	1 hr 34 min
14	Naomi	19	F	Australian	7 September	1 hr

Appendix 4 — Netflix Interview Questions

The following questions were used as a guide/checklist for an informal discussion with participants about their Netflix usage and perceptions about the platform.

BACKGROUND

- What is your previous personal experience with televisual consumption? Consider how old you were when you first watched TV, how often, and the general trajectory of your habits until now.
- What was your primary mode of televisual consumption before Netflix?
- When did you first get Netflix/How long have you had an Australian Netflix account?
- What type of subscription do you have?
- How did you hear of Netflix, and do you know much about its history?
- What influenced your decision to get Netflix?
- How does Netflix compare to your previous mode of consumption?

THE WALKTHROUGH

- Comment on the general functionality of the platform - is it easy or difficult to use?
- Have you tried other streaming platforms? If yes, what ones, and how do they compare to Netflix?
- What is the best feature about the platform?
- What is the worst thing about the platform/what would you change/what do you wish was different?
- What would you select to watch right now and why would you watch it? Consider what influences this decision (location, mood, time, sociality, recommendations, ratings...)
- How long does it usually take you to find something to watch?
- Is the 'recommendations' algorithm useful or accurate in your opinion?
- Is the internal rating system useful or accurate in your opinion?
- Do you take interest in the content trailers? Are they valuable in your opinion?
- What is the most important thing about the platform to you? (content, layout, algorithms)

THE PLATFORM

- Do you notice there is no ads on Netflix? Is this a benefit/do you prefer it?
- Is the relief from advertising beneficial to your life - has it made you think differently about the way you consume media at all?

- Do you believe Netflix has had a significant impact on the way Australians access global content?
- Does it matter to you if there is Australian content on Netflix?
- Are you unhappy with anything Netflix has done regarding the functionality of their platform or access to content?
- What would you like to see more of on Netflix?

VIEWING HABITS

- Describe the way Netflix fits into your life. Consider
- How often you watch something on Netflix
- Where you predominantly watch
- What is it you are typically watching - shows, movies, originals, documentaries…
- Is the consumption of content on Netflix a priority in your daily life
- What are you typically doing while you're watching? (Full attention, eating, etc.)
- What things largely inhibit your viewing time? (work, study, parenting…)
- How has Netflix changed the way you consume televisual content? Consider:
- How often did you watch FTA television before subscribing to Netflix?
- How often did you use other modes of TV consumption before Netflix?
- Since getting Netflix, has your time spent viewing televisual content increased, decreased or stayed the same?
- Do you go to the cinemas? When is the last time you went? Has your motivation to go to a cinema increased, decreased, or stayed the same.
- Do you watch DVD's or videotapes? If no, when is the last time you did?
- When is the last time you rented a DVD?
- When is the last time you bought a DVD?
- Do you own any box-sets?
- Has your use of Netflix increased, decreased or stayed the same since you first got it?
- Are there periods in your life where you watch more or less?
- Do you or have you combined Netflix with other practices? (e.g. eating, socialising, cooking, cleaning, hookups…)
- Do you do anything to enhance your viewing experience? (gather your pet for company, make a tea/coffee, get a blanket…)
- How often do you watch Netflix alone / with other people?
- Elaborate on your primary motivator to watch Netflix (e.g. leisure, intrigue, social)

- Do you prefer to watch alone or with others? How often do you watch alone or with company?

- Does anybody else use your Netflix account? Does it significantly influence the platform's tailored algorithms? How do you feel about this? Does it bother you?

- What is your favourite and least favourite thing about Netflix in general?

- Are you typically drawn to things you haven't seen before or things you have seen? Do you often re-watch the same things or actively seek out new content? If you do both of these, estimate the ratio of old vs. new.

- Tell us about your favourite things to watch currently and why?

- Do you have any 'go-to' shows on Netflix that you always seem to put on in the background while you're at home? Why is this? How many times have you seen it? Did this exist before your Netflix subscription?

- Do you ever finish a series and start it again? What is it? How many times have you seen it?

- Guilty pleasures: Is there anything you wouldn't watch or would avoid watching on Netflix because you don't want it to pop up in your continue watching section?

- What is the most interesting thing you have come across on Netflix?

- Have you used the web to seek additional information about content on Netflix? Why? Which sites?

- Do you consume Free-to-Air television or any other ad-based broadcasting models? Why or Why not?

- Elaborate on your use of other ad-free streaming platforms if applicable - how do they compare with regard to content and functionality, and was it Netflix that led you to try them or vice versa? If you have not used other streaming platforms, what would make you consider it?

- Have you ever had to cancel or renegotiate personal, social or professional responsibilities as a result of watching Netflix?

- Can you recount any life events have have influenced your viewing habits? (e.g. injury, illness, romance, age…)

- What is the most unique experience you have had in relation to Netflix?

WELLBEING
- Describe the way Netflix has influenced your personal wellbeing.

- What is your attitude toward your Netflix consumption? Good/bad? Do you wish you used it more/less?

- How important is Netflix to you at the moment?
- How would your life change if you did not have a Netflix account anymore?
- Comment on the general impact Netflix has had on your life, if any. Has it been positive or negative?
- Has your Netflix subscription influenced your physical activity at all?
- Has Netflix impacted on the way you assess your physical health?

SOCIALITY

- Would you or have you recommended Netflix to others?
- Do you seek out reviews, ratings or recommendations online or through friends? How valuable is this information for you? How does it compare to the internal recommendation algorithm on the platform?
- Is Netflix content a common conversation topic amongst your family and friends? If yes, what is the nature of these conversations?
- Has Netflix or anything associated to it ever caused controversy or conflict in your household or in a social setting?
- Are you involved in or contribute to any pages, groups or forums online relating to Netflix or its content?
- Do you post any information about Netflix or its content on your social channels? (e.g. have you uploaded or shared images, memes, videos, or other media about Netflix? Where and how often?)

CULTURE

- Do you ever see memes on your social channels relating to Netflix? What are they typically about?
- Are you familiar with the term 'Netflix and Chill'? Explain where you see or hear it primarily.
- Do you think Netflix has had a significant impact on the way Australians consume televisual content?
- Has Netflix, as an ad-free model, set a standard or expectation for the way you consume all content?
- Would you or have you used the term 'binge-watch' or 'bingeing' to describe your viewing habits on Netflix?
- Do you think Netflix is a fad?
- How popular do you think Netflix is in Australia/the world?

ECONOMICS

- Who pays for your Netflix account?
- How do you pay? (direct debit, month-to-month…)
- Is your Netflix subscription a priority in your budget?
- Do you believe Netflix is good value for money?
- How much would you be willing to pay a month to keep your Netflix account?
- How long do you imagine you will keep your Netflix subscription?
- Have you purchased anything as a result of something you have seen on Netflix?

CONNECTIVITY

- On what device do you primarily watch Netflix?
- Does it matter to you what device you watch Netflix on? Do different devices change the experience, in your opinion? Does access to a certain device influence your decision to watch Netflix?
- How good is the quality and connection? Have you ever experienced connectivity issues?
- Who is your internet provider? Have they influenced your experience with Netflix?
- How much data are you allocated in your Internet plan - have you ever increased your allowance because of Netflix?
- How important is the quality of the streaming in terms of image definition/resolution? Would you consider upgrading your data, connection, or plan to improve viewing?
- If Netflix was not available in Australia, how would you access content?

Appendix 5 — Pokémon GO Participant Metdadata

There were a total of 14 participants for the PoGO case study, of which males and females were equally represented. The participants' ages ranged from 18 to 40 years, with a mean age of 25 years. The average interview duration was 45 minutes. A walk-along was conducted with four participants from the sample, with an average duration of 11 minutes. Details for each individual participant (represented by pseudonyms) are detailed in the table below.

Participant		Age	Gender	Date of interview/walk-along	Duration
1	Ben	25	M	5 November 2016 / 10 August 2017	42 mins / 11 mins 1 sec
2	Jackie	18	F	19 November 2016 / 10 August 2017	39 mins / 11 mins 51 secs
3	Ian	22	M	2 December 2016	45 mins
4	Natalie	23	F	5 December 2016	36 mins
5	Griffin	19	M	6 December 2016	52 mins
6	Emma	29	F	13 February 2017	1 hr 1 min
7	Austin	32	M	13 February 2017	1 hr 5 min
8	Mason	29	M	14 February 2017	34 mins
9	Camilla	21	F	10 March 2017	41 mins
10	Lily	40	F	22 March 2017 / 4 June 2017	42 mins / 9 mins 50 secs
11	Henry	24	M	23 March 2017	44 mins
12	Dominic	29	M	4 May 2017 / 8 August 2017	1 hr 11 min / 10 mins 35 secs
13	Katie	20	F	9 May 2017	18 mins
14	Faye	24	F	10 May 2017	46 mins

Appendix 6 — Pokémon GO Interview Questions

Prior Experience with Pokémon

- What is your previous personal experience with Pokémon games or the animated series?
- Do you know anything about its history?
- Do you consider yourself a fan of Pokémon?
- How did you learn about Pokémon Go?

Current Experience

- How long have you been playing Pokémon Go?
- Was it difficult to learn how to play Pokémon Go to your satisfaction?
- Have you used the web to learn about Pokémon Go? Which sites?
- Has your use of Pokémon Go increased, decreased or stayed the same since you began to play?
- What do you enjoy most about playing?
- Are there any negative features to the game?
- What is your best experience playing Pokémon Go?
- Tell us about your most valuable Pokémon? Where were you when you caught it?
- What are your primary goals when playing Pokémon Go?
- Do you seek out rare Pokémon?
- Do you play Pokémon Go competitively? Do you challenge Gyms? Do you have a favourite gym?
- Is the location of a gym important to you?
- Do you seek to incubate Pokémon eggs? What is your favourite strategy to hatch eggs?
- Do you prefer to play alone or with others? Have you played in groups?
- Are clusters of Pokéstops important?
- Have you spent time customising your in-game avatar?
- Have you purchased a bag or Pokémon storage upgrade?
- Does completing the Pokédex interest you?
- How do you feel about exclusive and regional Pokémon? Would you consider travelling internationally to complete your Pokédex?
- Would you play a similar 'Go' style mobile location game without the Pokémon experience?

Appendices

Temporality
- What times of the day do you usually play Pokémon Go?
- How long do you play for typically?
- Do you purchase in-game items with time-limited use (Incense, Lucky Eggs, Lures, Incubators)? How often would you use these items per play session? How often do you purchase in-game currency (Pokécoins)?
- How long do you imagine you will continue to play Pokémon Go?
- Does the idea of Pokémon Go being a 'fad', interest or concern you?
- Does it matter if the game does not continue to be popular? Are you keen to see more or fewer users when you play?

Spatiality
- Where do you predominantly play Pokémon Go?
- Have you discovered new places or rediscovered places through using Pokémon Go?
- Tell us about the kinds of places you enjoy playing Pokémon Go?
- Can you think of any street or infrastructural features that clash with using Pokémon Go?
- How do you usually move when playing Pokémon Go? (Walking, Running, Cycling)
- Do you use the in-game map to navigate movement when playing Pokémon Go?
- Have you encountered any interesting plants during your experience with Pokémon Go?
- Are there any encounters with animals you have experienced while playing Pokémon Go?
- Can you think of any examples where the in-game map draws attention to the local physical world?
- Do you take an interest in the names, descriptions and location of Pokéstops? Do you have a favourite Pokéstop?
- Are you concerned by using Pokéstops, or catching Pokémon, that are close to residential areas?
- Do you find yourself routinely looking for Pokémon, Pokéstops or Gyms in new places?

Sociality
- Have you ever made new acquaintances through Pokémon Go?
- Are you aware of others playing Pokémon Go when playing? When not playing?
- Do you find it easy or hard to talk to Pokémon Go players unfamiliar to you?
- Have you ever experienced any events where more than a handful of people have gathered through Pokémon Go?

- Do you follow or contribute to websites, online collectives, or Facebook groups that are dedicated to Pokémon Go?
- Do you upload or share images, memes, videos, or other media about Pokémon Go? Where and how often?
- Do you share images of yourself playing Pokémon Go to social media sites? Would you consider doing so in the future?

Physicality of Play

- How has the use of Pokémon Go influenced your physical activity?
- What are the most challenging physical elements about the game?
- Has playing Pokémon Go impacted the way you assess your physical health?

Regulation

- Are there rules and regulations that inhibit the ways you use Pokémon Go in the built environment?
- Are there experiences that have regulated the way you play Pokémon Go?
- How could the experience of Pokémon Go be enhanced by different rules and regulations in the built environment?
- Are there any instances where you have felt your safety has been jeopardised through using Pokémon Go?
- Are there locations that you feel particularly safe in playing Pokémon Go?
- Do you take risks when playing Pokémon Go that you would not normally take?

Economics

- Have you ever made any purchases in the physical world before, during or directly following use of Pokémon Go?
- In your estimation, roughly how much have you spent on in-app purchases in Pokémon Go?
- Do you combine paying Pokémon Go with other activities, e.g., shopping, work, play?
- Do you monitor the amount you spend in-app purchases when playing Pokémon Go? How do you limit or budget your spending in the app?
- Do you consider playing Pokémon Go to be good value?
- Have you purchased other Pokémon products as a result of playing Pokémon Go?

Connectivity

- What mobile networks do you use to play the game?
- Do you use wireless connections to play at all?
- How good is the quality of the connection, in your opinion?
- Does the inability to log-in to the app cause concern?
- What impact does the network connection required by the game have on your monthly data use? Would you consider upgrading your data, connection, or plan to improve the quality of your Pokémon Go sessions?
- How often does your game fail to sync or open a connection to the server?

Materiality of Play

- What is the model of Phone you are using to play Pokémon Go? How old is it?
- How often do you update your phone? Would you update your phone to improve the play experience?
- Do you use the Pokémon Go Plus device?
- What is the impact of the Plus on your play?
- Do the AR and in-game map features work well with your phone
- Have you purchased products, such as batteries, cases, etc., to improve your play experience?
- What items do you regularly carry with you during play?