University of Alberta

Emerging adults and the domestication of console-based video games in the home

by

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DEDICATION

Dedicated to my wonderful wife Vicki; thanks for sticking around while I wrote my Master's thesis.

Oh the streets
of Grand Theft Auto San Andreas
fill with smoke
Doorbell rings
I put my controller down and pick it up
Shoot some things

Later, the darkness hits reboot and the loneliness increases
She said she'd come back home when I write my Master's thesis

-*When I write my Master's Thesis*, John K. Samson

ABSTRACT

Ten emerging adults were interviewed about their experiences of console-based video games in their domestic context. Emerging adults were chosen because they constitute the first generation of video game natives, the first generation to grow up with video games as a ubiquitous piece of Everyday Life. Interviews were employed to better understand the domestication styles that emerging adults had experienced. These experiences served to develop themes around the four components of domestication (appropriation, objectification, incorporation, conversion) as well as around the domestication dynamics between technological native children and technological immigrant parents. The results found that domestication of video games is a complex process that takes a variety of shapes in various domestic spaces. For the reader interested in how video games specifically, technology generally, is domesticated in negotiations between technological native children and technological immigrant parents this thesis offers a rich articulation and set of themes.

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As human beings we have a penchant for celebrating the accomplishment of epic journeys. Armstrong's flight to the moon, Columbus crossing the ocean, Pheidippides run from Marathon to Athens all inspire awe. There is perhaps an unstoppable urge toward awe in the face of the vast, epic expanse.

Less celebrated, but no less important, are the tiny, epic journeys. Consider the Wright Brothers first experiments with flight, the hollowed-log canoes that crossed rivers and bogs, and, even the tiny, determined steps of a toddler learning to move on the strength of their two feet.

This journey has been the latter. Far from epic, this thesis does not break humanity's next frontier, does not bring us to the new world, and unlike Pheidippides, I will (hopefully) not drop dead when it is over! Nonetheless, the project has been my own tiny, epic journey. It has brought me to new personal frontiers – indeed, when I began the MACT program, the idea of writing a thesis might as well have been a flight to the stars.

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Introduction: Statement of research question

The home is the central meeting and living place of the family. The addition of new, untamed information and communication technologies (ICTs) into the home always has an impact on the home and the members thereof. Decisions such as whether or why to purchase an ICT (appropriation), where to locate the ICT spatially in the home (objectification), how to structure time routines given the inclusion of the ICT (incorporation), and how the ICT is amalgamated both into the corporate identity of the home and the individual identities of the individuals within the home as represented to the public world outside of the home (conversion) constitute domestication (Silverstone, Hirsch, & Morley, 1992). In this study, I attempt to answer the following question about domestication: **What themes characterize emerging adults' phenomenological experiences of domestication in the context of growing up as video game natives under the care of video game immigrant parents?** By employing a series of interviews, then explored from a phenomenological perspective, I ultimately find that there is a great variety of styles of domestication that characterize emerging adults' experiences of console based video games. The varieties of domestication styles are themselves reflections of the Moral Economy that characterize the home. Further, the incredible capacity for private, layered meanings around ICTs is evidenced in the responses of participants, particularly in the conversion phase of domestication. Final unexpected findings were the general approval that emerging adults offered for their parents' domestication style and the unique situation of emerging adults as individual suspended between identities as a technological native and technological immigrant.

The home

The home is focally at issue in this thesis. Therefore, it is essential to begin by defining what is, and is not, meant by the home. Home is, of course, a complex construct that has taken various meanings in a multitude of social theories (Chambers, 1994; Morley, 2000; Soronen & Sotamaa, 2004). The task here is not to develop a complete and exhaustive list of these theories; rather, the task is to articulate how home is conceptualized in the context of the present research – as a Moral Economy.

Home as machine for living

The home, in the contemporary middle-class Western experience, is straightforwardly understood as the place for the family to dwell together. As a lived environment it is "perceived as an intersection where ideals and practices of architecture, industry, policy, advertising and media texts come together with private activities and interpretations of dwellers" (Soronen & Sotamaa, 2004, p. 223). To borrow Le Corbusier's famous phrase, from his 1923 book *Vers une architecture* "Une maison est une machine-à-habiter" translated literally to "a house is a machine for living in". In this machine, consumer goods (i.e., electricity, natural gas, water, etc.) are literally pumped in for consumption by the family. The home is framed as a place of comfort, privacy, and refuge from the public world. As such, certain customs of respect for ownership and privacy are deeply tied up in socially intuitive notions of the home, and these customs are then privately negotiated in unique ways that support the orientations, customs, values, etc. of any particular home.

Home as Moral Economy

Beyond the intuitive, straightforward sense of home as a concept in Everyday Life, how ought we to think conceptually about the home? What theoretical tools will make us successful

as we consider the emergence of video games into domestic spaces? In order to understand video games' role(s) in the home, we must weave together an account of the home that allows us to consider the political, economic, and transactional elements of all dealings in the home. In this vein the notion of the home as a Moral Economy is helpful. Home as Moral Economy has roots in anthropology (Appadurai, 1986; Cheal, 1988; Parry & Bloch, 1989) and historical research (Thompson, 1971) but is further informed by others (Rybczynski, 1986). The Moral Economy framework offers a distinctive reformulation of home as "both an economy of meanings and a meaningful economy" (Silverstone, Hirsch, & Morley, 1992, p. 18).

To illustrate how the Moral Economy works, it is helpful to consider Parry and Bloch's 1989 work on the meanings of money. Parry and Bloch are careful to use the plural 'meanings' as their work is predicated on the idea that there is not just one meaning of money (or any other commodity). Rather, they argue that the dominant meaning of a commodity in the market is just one potential meaning and that the meanings in different households will be diverse. They further argue that meanings of commodities are potentially subject to transformation as they cross from the public market place to the Moral Economy. In the public world money is objectively a value-neutral currency that enables trade and commerce – that is, money is an objective commodity. In the private world, money is subject to a different set of values associated with the long term interests of the social and cosmic order (Kopytoff, 1986; Parry and Bloch, 1989). Money can be understood as a ticket to a more desirable life, as wealth which itself can generate wealth, an emblem of success, evidence of an unjust system which disproportionally rewards labor, and so forth. Additionally, money can potentially become any commodity or service that is available in the market.

In the same way the meanings (and purposes) of money are negotiable and multiple, so too all objects that enter the Moral Economy are subject to various meanings that are inherently moral and meaningful (Bastide, 1978; Ferguson, 1990). These various meanings are expressions of the integration, appropriation, and re-appropriation of technologies into a Moral Economy. In this framework, the home is understood as part of "a transactional system of economic and social relations within the formal or more objective economy and society of the private sphere" (Silverstone, Hirsch & Morley, 1992, p. 16). Whereas the formal economy operates as a marketplace, separate from the private meanings of the family unit, the Moral Economy can be thought of as the line of consumption that differentiates the public sphere of the marketplace from the private space of the home. Upon crossing this line all ICTs are appropriated in ways that uphold the integrity of the private sphere, lest the private sphere collapse into little more than a vapid reflection of the public sphere. Meanings, uses, and potentialities of the technology that are incongruent with the Moral Economy are then threats to meaning which must be addressed. In many cases these incongruences can be faithfully negotiated such that the semantic universe of the household ultimately remains intact. In some cases however, technologies will be seen as a threat that cannot be negotiated, tamed, or integrated. In these cases technologies may either be banished from the home as unclean animals, or the symbolic and semantic integrity of the home may be fundamentally challenged or even broken.

The home is not fully subject to the will of the public sphere and marketplace nor is it entirely bracketed off as some type of foreign entity to the public sphere. The home is an active and necessary location of consumption and re-appropriation of, and engagement with, the products and the underlying systems, meanings, and politics of the public marketplace. As such, the home is an intentional focus of consumer innovations (Miles, Cawson & Haddon, 1992).

There is an active engagement that expresses itself not only in the consumption of consumer goods, but also in reactions that serves as a sort of feedback loop (i.e., consumer satisfaction surveys, market research). At another level this active engagement includes conversion of ICTs, and their associated implicit and explicit meanings. This active engagement subverts the meanings of the public economy in order to faithfully conform or faithfully challenge the Moral Economy of the home. I use the term 'faithfully challenge' here to emphasize that not all consumer goods that cross from the public marketplace into the home will necessarily be endorsed and enjoyed by all in the home. In fact, there may be great ambivalence about the wares of the marketplace, and more importantly, the symbolic orientations and meanings attached with those goods. However, if the goods that cross into the home can be understood as making a challenge to the private meanings and worldview of the home while remaining intelligible to the worldview of the home, there potentially remains symbolic room. It is not the object or ICT that challenges the Moral Economy of the home that is doomed to banishment; it is the object that is unintelligible. As Douglas and Isherwood (1978) say, "[the] essential function of consumption is its capacity to make sense" (p. 62).

Technology

Given that ICTs are consumed, appropriated, and re-appropriated in ways that align with the private Moral Economy, how ought one to think critically about consumption and re-appropriation? As subversion? As rebellion? As participation? As a disenfranchised action or as a hopeful, creative activity? Essentially, how ought we to understand the unique, novel, and unintended uses of technology in the home conceptually? Before tackling the question of how to understand this re-appropriation of ICTs (what I take to be domestication) it is valuable to first address the question of how we ought to frame technology. In short, how do we understand

technology's 'will' or 'influence'? Is technology neutral? Is technology autonomous or human-controlled? By giving an account of technology we have the tools to understand what it means to consume and re-appropriate technology.

Technological determinism and instrumentalism

There is no more appropriate place to begin questioning technology than by addressing neutrality. Is technology neutral? Does technology prefer to be used in particular ways? Does technology have biases? There are at least two traditions that hold that technology is in fact neutral – technological determinism and instrumentalism. Technological determinism holds that technology is a modernizing effect that brings an increasingly bright future to society on the basis of improved efficiency in achieving ends that are universally desirable (Ayres, 1952; Ogburn, 1922; Veblen, 1899). Technological determinism has roots in progress myths that hold that the scientific method, together with the neutralization of reality, and an emphasis on efficiency produced by technology will lead society inevitably towards a utopian future (Nisbet, 1980; Popper, 1957). While the future that progress myths and technological determinism are clearly not neutral, they are achieved by means of supposedly neutral technology. As an example, the determinist logic might go: everyone needs to eat, so the industrialization of farming is a natural eventuality of the progress of technology. There is nothing 'moral' about the mechanization of farming, the genetic and mechanical realities of industrial farming are little more than brute facts.

A related philosophical school is instrumentalism. Instrumentalists likewise see technology as a neutral tool; however, they differ in their assertion that technology is directed by human control. Technology, in the instrumentalist tradition, has no preference over any action freely chosen by the participants and therefore will not necessarily lead society to any particular

future. Instrumentalists tend to see technology as artefacts that can be used in any way that the user sees fit – e.g., one may use a needle to administer medicine or street drugs. For instrumentalists, the needle is neutral and prefers no use over the other. While there is some merit to the notion that technology can be used in a variety of ways, instrumentalism has been criticized for its short-sighted understanding of the inherent value claims that technology place on both the individual and the society (i.e., as has been noted by 'luddite' communities such as the Amish).

Most critically, the reason why both these perspectives remain philosophically untenable is their tendency to overlook technology's affordances dictate their preferred uses. The fact that technologies are created in particular socio-political-economic contexts with particular biases is somehow bracketed off as unimportant in these philosophical systems. As such, they fail to recognize that technology is intended to frame the world in particular ways. The thesis that technology is neutral in either its design or effects on social relationships has been largely discredited – by the Social Construction of Technology (SHOT) and Critical Theory respectively. Any full account of technology cannot be as neutral.

Assuming that we reject the thesis that technology is neutral, what philosophical traditions schools remain available? Two well-known schools are the substantivist tradition and the critical theory tradition. Both these traditions see technology as value-laden and as representative of values, biases, and affordances. In the critical theorist tradition, the emphasis is placed upon how the technological artefacts, together with the systems of production, marketing, and distribution reflect a bias in the social relationships between producers who make design decisions and profit from the production apparatus and the consumers who are voiceless in design and exploited in consumption. In the substantivist tradition, the emphasis is placed upon

the way in which technology itself is an enactment of the good life which frames a particular worldview and orientation toward the world. Unfortunately, the majority of substantivists – often mislabelled technological determinists for their tendency to see technology as autonomous and outside the providence of human control – have been highly critical, even dystopian, about modern life (Ellul, 1964; Heidegger, 1977; McLuhan, 1962; Mumford, 1967; 1970). This tendency has, in fact, marred much of the value of the substantivist perspective.

Substantivism

In Heidegger's famous *On the question concerning technology* he writes:

> Yet when destining reigns in the mode of Enframing, it is the supreme danger. This danger attests itself to us in two ways. As soon as what is unconcealed no longer concerns man even as object, but does so, rather, exclusively as standing-reserve, and man in the midst of objectlessness is nothing but the orderer of the standing-reserve, then he comes to the very brink of a precipitous fall; that is, he comes to the point where he himself will have to be taken as standing-reserve … *In truth, however, precisely nowhere does man today any longer encounter himself, i.e. his essence*. (1977, p. 27)

Heidegger is keenly aware of a shift in the quality of experience of the world through the enframing of technology. There is something qualitatively different between the forest and the standing reserve of lumber and it is through technology that these horizons of meaning are opened (and closed). The innovation of industrial logging is not merely a more efficient method of chopping down a tree. Rather the meanings of the act of logging, along with the meanings of the forest, are transformed with the technology. For Heidegger, there is a profound danger that the horizons that technology is opening are not only qualitatively different, they are qualitatively worse. Similarly, Ellul (1964) says, "Technical invasion does not involve the simple addition of new values to old ones. It does not put new wine in old bottles; it does not introduce new content into old forms. The old bottles are being broken" (p.121). There is a keen awareness here that technology contextualizes the world in new ways that are not congruent with the former

world. Unfortunately, Heidegger and Ellul tend to see the world that technology is creating as being a markedly worse than the world it is supplanting. Even the suffering alleviated and joys made possible by technological innovation are seen a priori as a kind of dupe that blinds society to the larger problems that technology creates. This narrative tends to view the human actor as powerless and for this reason it has been widely critiqued and often dismissed. What Heidegger, Ellul, and others offer – despite the hopeless and minimizing effects of their perspective – is the grounds on which to endorse that technology radically re-creates the world and the horizons of possibility in the world. In this way, there is an element of technology that is beyond human control. While engineers, designers, and manufactures can create a freeway and a hot rod, they cannot control the effects – often systematic – that these technologies will have on the world that it supplants and creates. Technology 'takes on a life of its own' and transcends the creators intentions – as has been illustrated in the concept of technology-as-text (Grint & Woolgar, 1997).

Critical theory

Critical theory tends to be simultaneously an empowering and a disempowering dialogue that recognizes the plasticity of our social world (i.e., economy, industry, technology, etc.) and is critical that, despite this capacity for a re-orientation of the world that would make it more just, there are political forces that maintain the status quo: "Critical theory rests on a basic premise … that natural laws and purely technical principles by themselves do not determine the shape of technology. Social forces drive technological development right down to the level of concrete design choices" (Bakardjieva, 2005, p. 15). In this way, critical theory is often an ally of groups that have tended to be marginalized. In the Canadian context, Andrew Feenberg has particularly championed this viewpoint, offering numerous critiques of the instrumentalist, essentialist, determinist, and substantivist positions and offering articulate defences of critical theory

(Feenberg, 1991; 1995; 1999; 2005). Feenberg's account of technology does not dismiss substantivism; in fact, it tends to agree with the insight that technology is value-laden. Where Feenberg's perspective diverges from the substantivists' is on the issue of human control. Feenberg sees technology as – while having affordances and preferred uses – ultimately within the arena of human control and responsibility (or perhaps culpability). Particularly culpable are those with the political, social, or economic power to exert their will technologically - "operational autonomy" (Feenberg, 1999). In response to this technical dominance, the major reassertion of power by the powerless is technical micropolitics which, "involves forms of concrete political protest that aim to transform particular technologies through pressure from the grassroots activities of users, clients, victims" (Feenberg, 1995, p. 37).

While I appreciate the critical theory commitment to chart political waters in the hopes of advancing the cause of the 'victims' of technology, I worry that the narrative of oppression and struggle minimizes the phenomenological experience as surreal, naïve, and misguided. As an example, consider Feenberg and Grimes (2009) on digital games,

> While Romantic notions of "pure play" and "play for play's sake" continue to influence contemporary notions of leisure, critical theorists have long highlighted the crucial role that play fulfills within advanced capitalism. On the one hand, leisure is integrated into the labour cycle, which requires and organizes periods of rest and recuperation between productive exertions. On the other hand, the increasing commodification of leisure within mass consumer culture blurs the lines between play and consumption. (p. 107)

In the case of technological games and leisure, the critical theorists seem to see the phenomenological experience of technology as secondary to the larger worldview-narrative of oppression, labour cycle, and advanced capitalism. In this way, critical theory does violence to the individual's phenomenological experience of technology, minimizing it as being of secondary importance to their vision of reality. I do not mean to suggest that systematic

oppression is only oppression if phenomenologically experienced as such. Rather, I am struggling to articulate that for my empirical study of technology in the home to make room for the voices of the participants whose lives I am examining, I must offer an accounting of technology that simultaneously recognizes the socially constructed nature of technology (Bijker, 1995; Hughes, 1989) and that offers a preferred reading but retains interpretive flexibility. I am therefore sympathetic to the substantivist point that technology enframes certain preferred readings and sympathetic to the critical theorist point that technology – from the design and consumptive stages – is the responsibility of human actors. However, I do not agree with the substantivist point that technology marches forward regardless of human will (generally to dystopia) nor with the critical theorist position that phenomenological experiences of technology are little more than instances of a larger drama that the user to which the user is potentially oblivious. As such I find myself occupying something of a no-mans-land between the two.

Therefore, in order to simultaneously endorse the preferred reading of technologies and the capacity for subversion of meaning at the domestic level, in this study I emphasize the affordances offered by technology (Gibson, 1977; 1979; Hutchby, 2001). In order to do this I understand technology as artefacts and systems which are socially constructed, by a particular elite, to preferred ends with certain behavioural and phenomenological affordances. Affordance is an intentional choice because it does not suffer the same implications of determinism as does other language (i.e., functions, capacities). Whereas a tea-pot affords pouring tea (both in design and social narrative), that is not to say that it could not be subverted from this intended, afforded meaning to serve any number of other ends. This emphasis of affordance enables my phenomenological study to endorse that technology is value-laden without falling victim to the

substantivist negation of the individual nor the critical theorist tendency to see any particular experience of technology as an outworking of a pre-written narrative of social and class struggle.

Domestication

Given that technology is a socially constructed force with symbolic and technical affordances and that enframes and enables various horizons of meaning which individuals can (and do) subvert, we can return to our original question: How ought we to understand consumption and re-appropriation (subversion) of technology, particularly as it relates to private meaning and the home? While the home is a site of comfort and togetherness, it is also a site of dialectic negotiation of control (Agarwal, 1997). The home is a space that contextualizes society's most intimate relationships – relationships between family, lovers, friends that are social, personal, private, and meaningful in nature – but also a site of negotiation and struggle. Regarding emerging ICTs, the struggle is not principally a struggle of parents to enforce rules on children, or even of family members to impose their will on ICTs. Rather, the struggle is to endorse ICTs in the home without compromising the symbolic integrity of the home as a place of connection, kinship, togetherness, happiness, and private meaning (Birdwell-Pheasant & Lawrence-Zuniga, 1999). The arrival (or perhaps intrusion) of ICTs in the home is potentially threatening to the symbolic order of the home. It is principally this threat to symbolic order that demands subversion of ICTs to the private meanings of the home. Subversion in this context can be thought of as domestication. In the domestication framework researchers are able to address new questions, such as: what processes shape the adoption and use of ICTs? How do people interact with technologies in private spaces? How do technologies impact intimate spaces and relationships? How do individuals, communities, and society make exotic technologies domestic (i.e., tame, safe)?

Origins of the domestication as a concept

The domestication approach was developed in early-1980's UK and Norway in anthropology, consumption studies and media studies (Haddon, 2011). In these early years researchers linked the domestication approach to work on the social shaping of technology (Lie & Sørensen, 1996; Sørensen, 1994). In the mid-1990's social shaping of technology was a newly emerging, very promising model for studying the relationships between technology and society (Mackenzie & Wajcman, 1985). Social shaping of technology was aided by a dialogue with the related work of the social construction of technology model (Bijker, 1995; Bijker, Hughes, & Pinch, 1987). By linking domestication of technology to the discourse on social shaping of technology, the approach was able to simultaneously gain increased credibility and profile as well as point out a particular area that had been largely ignored – "how that shaping process continued once ICT's started to be consumed" (p. 312). While linked to Social Shaping of Technology and Social Construction of Technology, domestication filled a niche that both disciplines had overlooked – consumed technology in the home. Both Social Shaping of Technology and Social Construction of Technology had tended to neglect consumed technology, especially in domestic spaces, and rather, focused on the choices about engineering and building technologies. The home, formerly untouched by technology studies and social research generally (Miller, 1987), was now open to investigation through the domestication of technology paradigm. Unlike other disciplines concerned with the development and construction of technological artefacts in laboratory and Research and Development departments, domestication of technology assumed that production and reproduction "does not end with the disappearance of a new technology into the home, any more than it ends with the introduction of a new technology into a society that previously had no experience of it" (Silverstone & Hirsch 1992, p. 3).

Formalizing the framework, conceptualizing the process

In the early to mid-1990s a more formal framework and set of questions relevant to domestication of technology were developed (Silverstone & Haddon, 1996; Silverstone, Hirsch, & Morley, 1992). The framework that was developed saw new technology as metaphorically equivalent to wild animals which must be tamed and integrated into the routines, environments, culture, and values of their users (Berker, Hartmann, Punie, & Ward, 2006; Silverstone, Hirsch, & Morley, 1992). Like domesticating an animal, the process was conceptualized as a dialectic struggle that changes both participants in the process. In the case of ICTs, the technology and the society that employs the technology are irrevocably altered by the domestication process. Silverstone (2005) has conceptualized this struggle as hinging on control:

> At the heart of this relationship is a struggle over control, and over the capacity of individuals in their primary groups (family, community, and possibly neighbourhoods and networks) to create a sustainable moral space for themselves in which judgements of appropriateness and practices of use are legitimated. Information and communication technologies pose substantial challenges and opportunities to the conduct of everyday life, precisely because they affect the core meaning making and communication components of social life. Managing them and positioning oneself in relation to them and what they offer as resources for communication and as tools for understanding the world, are arguably some of the key socio-cultural challenges of the twenty-first century. (p. 15)

Domestication in society

The home is not the only site to research domestication. Other research has attempted a society-wide scope – of particular note is Sørensen's 2006 work on the car and Morley's 2006 work on television. In this 2006 work Morley argues that television's domestication process changed notions of domestic architecture, with the invention of the 'through lounge' to facilitate viewing. As society makes various accommodations for new objects and ICTs in the home, there is a reframing and reconceptualization of domestic spaces and ICTs. Domestication

research that is societal in scope is of enormous contextual value to domestication research in the home.

Four domestication processes

Silverstone, Hirsch, and Morley (1992) offer "an integrative frame for the consideration of household practices and relations and the consumption and use of information and communication technologies, as objects and media" (p. 16). The authors first outline the Moral Economy of the household (as explored above) and the four "non-discrete elements or phases in the dynamics of the household's Moral Economy as it is constituted in the transactional system of commodity and media relations: appropriation, objectification, incorporation, conversion" (p. 21).

Appropriation

Appropriation is the first step in the domestication process. Appropriation takes place when a technology "is sold [and] leaves the world of commodity and the generalized system of equivalence and exchange and is taken possession of by an individual or household and *owned*" (Silverstone, Hirsch, & Morley, 1992, p. 18-19). Appropriation begins the moment that commodities cross from the public market and enter the private Moral Economy. The word 'consumption' is occasionally used for this process; however, a technology is continuously appropriated in various consumer activities (i.e., a cell phone is not consumed at purchase but is consumed as a cell phone, text message device, GPS, etc. over the coming weeks, months, and years). Therefore, to emphasize that gaining ownership over an ICT is the beginning of a long-term process, the word appropriation is preferred. It should be pointed out that appropriation is not "confined only to material objects but crucially also applies to the appropriation of media content, the selection of programmes to watch, computer software to buy … though 'ownership'

of these is of a different order from the ownership of objects" (Silverstone, Hirsch, & Morley, 1992, p. 19). Yet, in both cases, the meanings ascribed to the technological artefacts and the media content of those artefacts in the home is potentially divergent from the public market. Appropriation pays special attention to the reasons for welcoming a new ICT into the home – reasons such as entertainment, curiosity, and education of children (Haddon, 1992).

Objectification

In objectification, the ICTs are arranged and displayed such that they "provide an objectification of the values, the aesthetic and the cognitive universe of those who feel comfortable or identify with them" (p. 20). All technologies are potential aesthetic objects that have a place in the aesthetic arrangement of the home. One crucial example of an ICT that is simultaneously aesthetic object is the television – which is at least partially responsible for the growing popularity of the open concept home (Morley, 2006). However, all ICTs and all objects have the potential to reflect some aesthetic articulation:

> The plastic rose in the 'golden' vase, the photographs, the religious image, the laboratory flask, and most of all the television set and the spaces they occupy in the domestic order are meanings that comprise a cultural rationale. That is, a symbolic system, including an ethos of modernity, that is itself a part of a larger symbolic universe that has as its principal significance the city and industry. (Leal, 1990)

Each object in the home must be understood in the larger context of the Moral Economy. The religious imagery, latest ICTs, spatial arrangement of the home, decorative features, and even the 'plastic rose' all contextualize one another in a larger space of private meaning.

It should also be remembered that objectification is not merely a result of the interplay of technologies and objects in a home. The ICTs and objects in a home are domesticated and objectified in part by the context of the pre-constructed (and potentially re-constructible) spatial layout. In order to understand the objectification of an ICT we must understand the arrangement

and decoration of the space (Bernstein, 1971; Miller, 1988; Putnam & Newton, 1990). The home serves as a nexus between technological artefacts, physical spaces, and private orientations and the horizons of meaning that arise will be impacted by each of these constituents. Without understanding the particularities of a space we cannot understand the objectification of the objects within that space. For example, a 400 square foot apartment and a 4000 square foot estate, filled with an equal number of the same technological artefacts will necessitate divergent objectifications of those artefacts.

Incorporation

Straightforwardly, incorporation refers to the way that the ICTs are actually used in the home. Technologies are functional and the way in which households harness this functionality is the heart of domestication. Incorporation is generally explored in terms of incorporation into daily routines, as Silverstone, Hirsch, and Morley say, "[t]o become functional a technology has to find a place within the Moral Economy of the household, specifically in terms of its incorporation into the routines of daily life" (1992, p. 21). Whereas objectification tends to focus upon spatial questions, incorporation focuses upon temporal questions. In the case of entertainment and broadcast technologies there are questions of time spent in the company of the technology as well as the structuring of private and public time (e.g., nights that are dedicated to watching the latest episode of a television show, privately or as a family). By studying incorporation researchers are able to uncover implicit age and gender biases in the home, both of which are to be expected when dealing with video games (Schott & Horrel, 2000). For video game scholars the questions of who uses the video game console, to play what games, with whom, how often, etc. are of primary concern when considering domestication in terms of the incorporation process.

Conversion

In the same way that public market commodities with their connotations and meanings are transformed when they arrive in the private domestic world, so too the meanings that are made in the private world must be converted into the public market world. This conversion happens in the relationships that unfold in educational, social, and professional contexts outside the home. As Silverstone, Hirsch, and Morley explain, "the work of appropriation must be matched by this equivalent work of conversion if the first is to have any significance outside the home" (1992, p. 22). As an example of the work of conversion matching the work of appropriation, consider how television or video games provide the source for much of the talk and gossip in Everyday Life (Hobson, 1982; Pargman & Jakobsson, 2008). Television is appropriated into the Moral Economy of the home and then provides content that informs the Moral Economy of the home, the identities and interests of the household, and ultimately feeds into the presentation (and re-presentation) of self and home in the public market. Being informed by ICTs in shaping self is particularly "significant for teenagers, who will use their consumption of recorded music, or their collection of computer games, literally as a ticket into peer-group culture" (Silverstone, Hirsch, & Morley, 1992, p. 23). The choices that an individual makes about conversion will frame their experience of themselves in the public economy and lead them to endorse public and/or private meanings of technologies. For example, the use, celebration, symbolization, and general 'career' (Goffman, 1968) of the gamer will serve to open or close access to a peer group with its own specific worldview, symbols, hierarchy, and integrity.

Alternative construction of the domestication process: Domestication as a set of trials

In this research project I have articulated domestication as a four-step process of appropriation, objectification, incorporation, and conversion. However, I recognize that this is not the only conceptualization of the domestication process. There are a number of informal conceptualizations of domestication and at least one other well-known formal theoretical construction of domestication. Heavily influenced by the work of Bruno Latour, Lehtonen (2003) offers a conceptualization of domestication as a set of trials. Lehtonen's construction is written as a challenge to the simplistic "adoption curve" (Rogers, 1983) that implies a passive role on consumers. In the critiqued model all consumers will eventually adapt and accept the offerings of the market. Lehtonen seeks to challenge this notion by offering a more nuanced model as a set of trials that more faithfully demonstrates the process of consumption. Lehtonen's borrows Latour's actor-network theory (Latour, 1987) and sees the trials as "experiments of various sorts in which new performances are elicited" (p. 364). These performances define all participants – human and non-human. These performances in turn constrain and enable all actors to "mutually exchange and enhance their properties" (p. 365). Through repetition of performances, all actors acquire new qualities and abilities and show the limits of the attachments between users and their technologies.

Lehtonen suggests that domestication is made up of "the development of a need" (p. 367), "mobilizing friends as warm experts" (p. 371), "adjusting technologies, adjusting homes, adjusting practices" (p. 373), "subjected to continuous education" (p. 375), and finally, "testing the degrees of presence" (p. 377). In the first step consumers come to develop a need or desire for a technology, generally through seeing the technology in action. In the second step consumers gain unbiased knowledge from friends about the technology to evaluate its potential and its problems. In the third step, consumers find a place for the technology in the home and in

life routines and momentum for the technology. In the fourth step, consumers continue to learn about the capacities of the technology and find new horizons of meaning for the artefact. In the final step, the technology disappears from the technoscape as a 'technological' artefact and simply becomes an object in the home – further, the object may come to be disposed of if some other technology supplants its usefulness. By technoscape, I am referring to the composition of technologies and the relationships that surround the design, creation, and consumption of technology. Appadurai (1996) gives a rich articulation in *Modernity at large* where he defines technoscape as "the global configuration … of technology, and the fact that technology … moves at high speeds across various kinds of previous impervious boundaries" (p. 34).

Favouring the four process model

While Lehtonen's model offers some new nuance, I believe that the theory has problems that make it inferior to the four process model of domestication. Particularly I doubt that the five processes that Lehtonen suggests are consistent processes across all contexts. While intuitively satisfying that domestication would begin with technology fulfilling a recognized gap, it is possible that ownership may come by gift or a purchase on a whim. And while one may mobilize friends as warm experts, this would not apply to so-called early-adopters. It is also likely that consumers will continue to learn about their technological artefact upon ownership; however, this step may often be skipped if the owner is content with the limited potentialities of a technology (e.g., some will prefer to ignore functions that are either uninteresting or not apparent to them). So while I recognize there are other conceptualizations of the domestication process, particularly Lehtonen's somewhat influential conceptualization, I have chosen to follow Silverstone, Hirsch, and Morley's model – appropriation, objectification, incorporation, and conversion.

Who studies domestication of technology?

Scholars concerned with domestication of technology have come from disciplines, fields, and worldviews as various as family studies, consumption studies, media studies, feminist theory, the study of Everyday Life, history of technology, and others (Crawford, 2012; Silverstone & Hirsch 1992; Silverstone, 2005). The interdisciplinary nature of domestication of technology is unsurprising as the essential notion of domestication of technology – that families and groups struggle to control and make sense of technology in ways that align with their needs and values – informs a variety of work. In this present study, I have assumed the theory of domestication of technology as the proper lens through which to view the arrival of console-based video games in the home. As explored below, the video game console represents a wild thing, poorly understood and warily received. The video game console has been sometimes understood as a pet and friend – capable of entertainment, diversion, and even camaraderie. In other cases the console has been understood as a potential digital hearth which would facilitate family togetherness or even a type of unclean animal, unfit for participation in civilized life and banished from the home. In all cases, however, the family must negotiate the status of the video game console in the private space of the home as the status of video games has been simultaneously negotiated in the public and semi-public spaces of mass media, corporate board rooms, legislative assemblies, courtrooms, and advertisement spaces (e.g., television commercials, billboards, etc.). Like the radio, television, electric light, automobile, and any number of other technologies that have permeated domestic home life, video games are now engaged in the ongoing dialectic, creative process of domestication. Of course, there is not one domestication process or one domestication outcome. Rather, there is one imperative to achieve a domestic space that is congruent with the needs and values of families, groups, and individuals.

Everyday Life as field of study

In order to understand how the *home* subverts the prescribed meanings of *technology* through a process of *domestication* I have offered conceptualizations of the italicized. However, the question remains, where is the locus of attention to be directed in studying domestication? Straightforwardly, the place is the home, but where is the home located? Beyond street and postal code, the home is located in Everyday Life. In this investigation I step into the intuitive world of Everyday Life. Everyday life, in Bakardjieva's words, "presupposes on the human being who lives in it" (2005, p. 37). While there is a rich history of literature in social science on 'Everyday Life' (Waites, 1989) I have elected to hold to the conceptual work of Alfred Schutz who sees the "everyday life-world" (Schutz & Luckmann, 1973) as "the region of reality in which man can engage himself and which he can change while he operates in it by means of his animate organism" (p. 3) and further, "[t]he problems of action and choice must, therefore, have a central place in the analysis of the life-world" (p. 18). For Schutz, in the everyday individuals experience themselves on their own (potentially unreflective, inarticulate) terms. In this way, Schutz offers us the opportunity to validate the bewildering, inarticulate, politicized, rhetoric-filled everyday world in which we strive to make meaning and decisions. In terms of Everyday Life we can attempt to understand the context of the home where parents, children, and potentially extended family or friends have to make decisions and meanings about video game consoles. In terms of Everyday Life we can understand competing narratives, especially in terms of ICTs (Haddon, 2004), which have made it more difficult for families in domestic spaces to make choices about video games. My present research attempts to explore the choices of families regarding video games in the context of Everyday Life. Like other ICTs before, video game consoles have been subject to a bewildering assortment of predictions, moral panics,

hopeful enthusiasms, public relations efforts, political posturing, academic and pseudo-academic literature, anecdotal evidence, and personal intuitions for and against video games (Squire, 2002; Steinkuehler, Squire, & Barab, 2012). The cascade of opinions, conjecture, political action, and posturing is in no way unique to video games – nearly all new media have been subject to so called "media panics" (Barker, 1984; Drotner, 1999). In Drotner's account of media panics, there is a repetitive character in which new media are seen by adults as undermining the education and well-being of children. In turn, expert discourses warn of the threat, often in hyperbolic terms, and in turn new measures are enacted and imposed which extend control over children's use of the new medium. In time, the new medium is integrated into the mainstream of culture and, eventually, a new medium emerges and the media panic is invoked again. An accounting of the media panic surrounding video games is explored more fully in chapter two. Not that all of the cultural discourse around video games can be characterized as media panic. In fact, a great deal of the discourse around video games is deeply enthusiastic. Predictably, a great deal of the enthusiastic discourse on video games has been directly mass produced by the video game industry in the forms of commercials, gamer magazines and websites, and various other advertising avenues. However, the video game industry is not the only enthusiastic proponent of video games. Educators (Arnseth, 2006; Pesce, 2000), social activists (Frasca, 2008; McGonigal, 2011) and gamers all have their own deep enthusiasms surrounding video games. Given the contested status of video game consoles in the public marketplace of meanings, it is not surprising that it has been difficult for families to know what to make of video game consoles in the home. By endorsing the ontological category of Everyday Life we have the tools to begin exploring the messy, often bewildering social context in which domestication takes place.

Emerging Adults

In my study I investigate the phenomenological experiences of one demographic that has been implicated in the arrival of video game consoles into the mainstream of the North American marketplace, home, and culture – emerging adults. Current emerging adults (age 18 – 25) constitute the first generation of video game natives. But who are emerging adults? What do we know about their experiences?

In 2000 Jeffery Arnett proposed that developed nations' young adults were experiencing a new life stage – emerging adulthood (Arnett, 2000). Arnett articulated emerging adulthood as "a period of the life course that is culturally constructed, not universal and immutable" (p. 470). To rephrase Arnett, emerging adulthood emerges from a certain cultural-economic-social milieu that supports a long period of "independent exploration" (p. 470). While Arnett writes in the American context and principally cites American statistics, he makes the claim that "demographic changes … in recent decades have made a period of emerging adulthood typical for young people in industrialized societies" (p. 470), a claim that includes Canada. Arnett suggests that the emerging adult is distinct in three ways: demographically, subjectively, and in terms of identity exploration. Arnett explains that:

> For most young people in industrialized countries, the years from the late teens through the twenties are years of profound change and importance. During this time, many young people obtain the level of education and training that will provide the foundation for their incomes and occupational achievements for the remainder of their adult work lives … Sweeping demographic shifts have taken place over the past half century that have made the late teens and early twenties not simply a brief period of transition into adult roles but a distinct period of the life course. (p. 469)

There are a number of 'demographic shifts' that Arnett is referring to that include: demographic variability, a steadily rising median age of marriage and age of first childbirth, an increasing proportion of the population pursuing higher education after high school, and residential status.

Regarding the demographic variability, Arnett says, "[e]merging adulthood is the only period of life in which nothing is normative demographically" (p. 471). In adolescence, "a variety of key demographic areas show little variation" and by age 30 "new demographic norms have been established"; however, between adolescence and reaching 30 "a person's demographic status … is very difficult to predict on the basis of age alone" (p. 471). Arnett suggests that this "diversity and unpredictability … is a reflection of the experimental and exploratory quality of the period" (p. 471). As evidence of the rising median age of marriage and parenthood, Arnett cites the median age of marriage in the United States climbing from 21 for women and 23 for men in 1970 to 25 for women and 27 for men in 1996, noting that "[a]ge of first childbirth followed a similar pattern (p. 469). In Canada in 2008, these rates are significantly higher: 29.1 for women and 31.1 for men (Human Resources and Skills Development Canada, 2013). Arnett also cites the "proportion of American emerging adults who enter higher education in the year following school is at its highest level ever, over 60% ... [yet] only 32% of young people ages 25-29 have completed four years or more of college" (p. 471). These statistics reveal that college education is being pursued "in a nonlinear way" and those who "eventually graduate with a four year degree ... [are] increasingly likely to [pursue] graduate school" (p. 471). Finally, in the area of residential status, Arnett notes a continually changing landscape that is marked by instability:

> About one third of emerging adults go off to college after high school and spend the next several years in some combination of independent living and continued reliance on adults … About 40% move out of their parental home not for college but for independent living and full-time work … About two thirds experience a period of cohabitation with a romantic partner. Some remain at home while attending college. (p. 471)

Arnett argues in this foundational paper that these features make emerging adulthood a demographically distinct developmental period.

Emerging adulthood is subjectively distinct

Arnett then argues that emerging adulthood is also distinct subjectively – a distinctly phenomenological measurement of adulthood. Arnett found that 18-25 year olds are ambivalent about regarding themselves as adults. With regard to how 18-25 year olds regard their own status as adults: "when … asked whether they feel they have reached adulthood, the majority of Americans in their late teens and early twenties answer neither *no* nor *yes* but the ambiguous *in some respects yes, in some respects no*" (p. 471). This contrasts starkly with 26-35 year olds who have much more clear sense of themselves as having reached adult status. There are a myriad of factors that contribute to emerging adults seeing themselves as neither child nor adult: "[p]erhaps it is difficult for young people to feel they have reached adulthood before they have established a stable residence, finished school, settled into a career, and married (or at least committed themselves to a long-term love relationship)" (p. 472). While these demographic forces inform and contextualize the emerging adult experience, Arnett suggests that emerging adults subjectively see two fairly nebulous individual "*qualities of character"* as being the most important criteria for transitioning to adulthood. These two criteria are: "*accepting responsibility for one's self* and *making independent decisions"* (p. 472). The phenomenological experience of emerging adulthood is one of transitioning to accepting responsibility and transitioning to making independent decisions.

Emerging adulthood distinct for identity explorations

Finally, Arnett argues that emerging adulthood is "distinct for identity explorations" (p. 473). Whereas Erik Erikson associated adolescence as the life period for identity exploration and formation, Arnett holds that contemporary culture, demography, and economics has generally deferred identity formation into the mid-twenties (p. 473). For Arnett, there are "three main areas of identity exploration: love, work, and worldviews" (p. 473). In emerging

adulthood, "explorations of love become more intimate and serious … and the focus is less on recreation and more on exploring the potential for emotional and physical intimacy" (p. 473). In work, emerging adults "become more focused on preparation for adult work roles … In their educational paths, they try out various possibilities that would prepare them for different kinds of future work" (p. 474). In terms of worldviews, emerging adults gain exposure to competing worldviews which they in turn must examine and consider. Arnett notes that worldview change is particularly true for emerging adults who take on college or university studies (p. 474). The explorations in love, work, and worldview are often existentially challenging. Many emerging adults will experience rejection, failure, confusion, doubt as profound new hurdles in their lives.

The development of the emerging adulthood literature

In essence, Arnett's proposal is that a particular social-economic-political milieu constructs a period of independent exploration of identity and that this period of exploration is marked by distinct demographic, subjective, and identity experiences. This proposal caught the attention of a field of researchers and in short order a great deal of literature was developed on emerging adulthood. Of course, it is fair to acknowledge that Arnett's proposal comes out of established dialogues about adolescence, identity development, adulthood, young adulthood, lifecycle development, and demographic change. Arnett rightfully cites the work of Erik Erikson, Ronald Rindfuss, Kenneth Kenison, and Daniel Levinson, all of whom helped cultivate the field of research in advance of Arnett's 2000 paper. Arnett's paper did not 'drop from the sky' in 2000, but the paper did spark the birth of a new concept and a new body of research.

In the years that followed Arnett's coining the term 'emerging adult', a literature rapidly developed. Numerous books have been dedicated to diverse topics as related to emerging adults: emerging adults' spirituality (Smith & Snell, 2009), emerging adults' romantic and sexual lives

(Crouter & Booth, 2006; Fincham & Cui, 2011), the 'dark side' of emerging adulthood (Smith, Christoffersen, Davidson, & Herzog, 2011), emerging adults ambivalence toward making choices (Konstam, 2007) mental health among homeless emerging adults (Whitbeck, 2009). In 2002, the Society for the Study of Emerging Adulthood (SSEA) was formed with the mandate to "focus on theory and research related to emerging adulthood … [in the hopes of] advancing the understanding of development in emerging adulthood through scholarship, education, training, policy and practice" (Society for the Study of Emerging Adulthood, 2012). The literature on emerging adulthood largely concerns itself with the demographic, social, cultural, and economic forces that produce the emerging adult experience as well as rich phenomenological descriptions of the emerging adult experience.

Who is an emerging adult?

One essential conversation in the larger dialogue revolves around: What qualifies an individual as an emerging adult? Is emerging adulthood a stage or a process (Arnett, Kloep, Hendry & Tanner, 2011)? Is there an age at which an individual can no longer be an emerging adult? Is the qualifying factor demographic, social, subjective, or something else entirely? Can emerging adults be 'identified'? In the introduction of *Romantic relationships in emerging adulthood* (2011) editors Fincham and Cui trace the history of the conversation noting critiques about "whether emerging adulthood is indeed a unique developmental stage" (p. 4), whether the term emerging adulthood "duplicates [terms] already found in the literature, and "whether emerging adulthood only applies to a certain group of people, in a certain culture, and at a certain historical time". Ultimately Fincham and Cui assert that:

> It is doubtful whether emerging adulthood is a developmental stage in the structural developmental sense found in some theories of human development such as those put forth by Piaget and Kohlberg. This is because it is difficult to see emerging adulthood meeting critical stage criteria such as universality and fixed ordering. It

> may therefore be conceptualized more accurately as a phase of life or even as an individual difference … Despite debate regarding the conceptualization of emerging adulthood, it has been widely accepted by scholars today as a useful term to refer to this period of time in the life course. (p. 4)

Therefore, emerging adulthood ought to be seen as, "the period from 18-25 years old (or perhaps older), the tenor of which … [includes] having left the dependency of childhood and adolescence, and having not yet entered the enduring responsibilities that are normative in adulthood" (Reifman, 2011, p. 15). In this present research I define emerging adults as individuals who are age 18-25, have never been married, have never parented children, and have never owned their own dwelling.

Emerging adults as video-game natives

The choice of emerging adults is timely because emerging adults represent the first generation of 'video game natives'. I have coined the term video game natives as a play on the, now famous, concept of "digital natives" proposed by Prensky (2001) and advanced by the work of authors such as Tapscott (2009). By video-game native I do not mean to imply that video games only arrived in North American homes in the late 1980's – in fact, the first video game consoles became commercially available in the early 1970's. However, as I argue in chapter 2, 1988 is the year that the video game industry as we know it today – a powerful economic and cultural force – arrived in North America and the technology became sufficiently normalized in North American culture to make it a salient feature of the technoscape. As emerging adulthood refers to people ages 18-25 (Arnett, 2000; Van Belle, 2012), the oldest emerging adults are the first video-game natives. The experiences that emerging adults had growing up under the care of their own parents, who are generationally video game immigrants (i.e., did not have any pre-parental experience managing video games in the home), shaped their sense of how video games ought to be domesticated. As emerging adults are on the cusp of adulthood and the

responsibilities of managing a home and rearing children, this research explores the insights that emerging adults bring on video games and the home – past, present, and future.

Video games

I take as my ICT of interest console-based video games. By console-based I mean a computer system dedicated to video games that produces a video display when connected to a television or other screen. This is an important distinction from other forms of gaming – e.g., computer gaming, smartphone gaming, handheld system gaming. I am concerned only with console-based video games because 1) the restriction in scope limits the historical and social scope and, 2) there are deep, abiding differences between various gaming mediums and their various functions and impacts within the home. As one example, the domestication process for handheld video games – a medium that is less intrusive yet potentially more prevalent – will likely differ from the domestication process for console-based video games, which are tied to a specific location and technology (the television).

Video games in academia

While the political and cultural dialogue is as old as the industry itself, and while the family has struggled through the domestication process for decades, the academy has only recently begun to take video games seriously as a medium worth study. Video games have in fact been available in the arcade since 1971 and in the home since 1972 (Herz, 1997), however, it was not until the late 1990's and early 2000's that video games began to gain legitimacy as a medium worthy of academic attention. In 2003 Wolf and Perron edited the first compilation of work on video game theory, appropriately titled *The video game theory reader*. In their introduction they offer a snapshot of the state of the field:

> At least the idea of video game theory is gaining acceptance in academia, even as pockets of resistance still remain. A few years ago this reader could not have come

> into being, not only for lack of an audience, but because of the scarcity of scholars willing to take the video game seriously as a cultural object worthy of attention. (p. 1)

There has been significant upsurge in interest in video games in the early to mid-2000's (Crawford, 2012). In the early to mid-2000's numerous video game centred academic journals were established: *Eludamos* (2007), *Game studies* (2001), *International journal of computer games technology* (2007), *Journal of gaming and virtual worlds* (2009), *Loading…* (2007), *Journal of virtual reality and broadcasting* (2004), and *Games and culture* (2006). Today, research on video games is a legitimate, active academic pursuit, drawing numerous parallels to film and television studies. Video game research has largely broken into three constituent fields: technical research in the tradition of computer science, medical and psychological research in the tradition of psychology and media effects, and "game studies in the tradition of the critical humanities" (Flew & Smith, 2011, p. 134). It is not my interest to write on the technical aspects of video game research; I refer the interested reader to the journal *Entertainment Computing* along with the work of Adams (2010), Kerr (2006), Kirkpatrick (2004; 2011), and Salen and Zimmerman (2004). I will, however, briefly review the medical and psychological research as it contextualizes the Everyday Life decisions that parents and guardians make about video games. Particularly, I review two subjects within the medical/psychological research on video games – the addictiveness of games and the effects of video game violence. I review these subjects particularly because they are the two claims about video games that are most likely to be troubling for the Moral Economy.

Media effects research and video game violence

Pop literature, pseudo-academia (i.e., non-refereed books and articles presented that position themselves as rigorous academic work), and the mainstream media have tended to

depict video games as causing aggression and creating addicted, socially-stunted individuals in using weighted, predetermined narratives (Glassner, 2005). While this body of literature is best thought of as a caricature of the academic dialogue, there is a growing consensus in the research community about the effects of video games (Schreier, 2013). Some researchers, such as Anderson, Gentile, and Buckley (2007) conclude that "on an empirical basis alone, the effects of media violence exposure generally and violent video game exposure in particular are not trivial" (p. 143). In a comprehensive consideration of the effects of violent video games on children, Kirsh (2012) reviewed the complete literature on video games and violence. Kirsh divided the research on video game violence into two categories: The Atari and Nintendo eras and the Sony era. Kirsh found that correlational research in the Atari and Nintendo eras, combined with poor research design that did not independently assess violent content of the video games, meant that "it is impossible to determine whether video game consumption in general … or playing violent video games was responsible for the significant correlations" (p. 235). Experimental research in the Atari and Nintendo eras "produced mixed results (p. 237) and Kirsh critiques that in fact the "studies finding effects may not have been actually assessing aggressive behaviour" (p. 237). In the Sony era, correlational research has found "significant associations," however many of the pertinent studies that Kirsh mentions come out of the Japanese and Finnish contexts. There has been little experimental research in the Sony era, but "contemporary research does suggest that violent video game play increases aggressive behaviour during middle childhood" (p. 239). It is worth noting that Kirsh is careful to say 'aggression.' In the case of one study, aggression was operationalized as sending a loud blast of noise to a competitor. This operationalization of aggression is far from the dramatic 'video games causing school shootings' type of headlines that often emerge in the mainstream news. Kirsh concludes that while video games may help to

develop positive attitudes toward violence in children, "[t]here is no evidence to support the contentions that violent video games teach children how to kill, remove the natural hesitancy associated with killing, or provide youth with a desire to kill" (p. 248). Sparks (2010) echoes this analysis saying, "[there are] definitely causal effects—but they are modest from a statistical standpoint. There are a host of other variables that contribute to aggressive behaviours in the real world. It would be a mistake to focus exclusively on any type of media as the sole cause" (p. 98). Most academics tend to agree that violent video games are associated with higher levels of aggression but that there are numerous other effects which must be understood to gain a complete picture of any individual's actions (Sparks, 2010; Torr, 2002; Unsworth, Devilly & Ward, 2007). As Flew and Smith (2011) say "[c]ause-and-effect models often take insufficient account of the relevance of cultural contexts and the ways in which media are actually implicated in the circulation of meanings in our cultures" (p. 132).

Media effects research and video game addiction

Like other types of technological 'addiction,' the literature regarding 'video-game addiction,' continues to be contentious in the research community. Though it is widely agreed that problem gaming is real (Clark & Scott, 2009, Narine & Grimes, 2009; reSTART Internet Addiction Recovery Program, 2012; Ross, 2009; Waite, 2007) – a phenomenon even reported by gamers (i.e., binge gaming and compulsive gaming), it remains contentious whether the banner of addiction is the most accurate and most helpful characterization of maladaptive gaming habits (Kelly, 2004). Griffiths (2000), Salguero & Moran (2002), Van Rooij, Schoenmakers, Vermulst, Van Den Eijnden & Van De Mheen (2011), and others have argued that video games feature properties that can be best described as addictive. Conversely, Shaffer, Hall, and Vander Bilt (2000), Chee and Smith (2005), and others have suggested that rather than using the language of

addiction for video games, it may be more productive and accurate to consider the social and cultural role the video games can play in an individual's life (Griffiths & Davies, 2005). New models of research are moving away from the notion of games as an addictive substance and growing to broaden horizons of meaning to encompass contexts that frame the gaming experience. The discussion about addiction is partially an argument about semantics, as there is near universal agreement that problem gaming is a very real phenomenon. However, for those most interested in the treatment of maladaptive gaming behaviour, these semantics represent an important distinction. For the purposes of this thesis, it is important to know that while binge gaming and compulsive gaming are generally agreed to be real phenomena, the academic dialogue revolves around how to best understand that experience in the larger context of one's life, social context, alternatives, intelligence, cultural milieu, etc. In any case, parental fears about video game addiction inform the domestication process as parents attempt to guard against video games addictive properties.

Game studies

This research project is most closely connected with the third stream of video game research: Game Studies. Game Studies is a kind of spiritual successor to earlier media studies disciplines such as television studies and film studies. In short, it deals with the critical study of games. It does this by studying games, players, and the social-economic-cultural-religious context that surrounds gaming through the lens of various disciplines (i.e., sociology, anthropology, philosophy, media studies, etc.). In 2001, in the first issue of the flagship journal *Game Studies*, Eskelinen called for a theoretical study of games, calling the lack of academic rigor around video games "an attempt to skip the 20th century altogether and avoid any intellectual contact with it, a consumerist double assassination of both the avant-garde and

advanced theory". While it may be an unfair characterization of the academy as 'attempting to skip the 20th century' Eskelinen perhaps makes his point with extra vigor and volume because video games have been overlooked for so long (Dovey & Kennedy, 2006). Whether the disregard for video games in the academy is wilful or a symptom of the academy's propensity to remain a generation behind pop culture in terms of scholarly engagement, Eskelinen's article was a moment of arrival for game studies. Eskelinen offers a convincing set of arguments that differentiate video games from other types of media effectively, "annihilat[ing] for good the discussion of games as stories, narratives or cinema" (2001). While Eskelinen's article was enormously important as a sort of symbolic arrival of Game Studies, Eskelinen was just one of many scholars to recognize, formally or intuitively, a gap in theory. The work of Espen Aarseth (1997) on cybertext, Murray (1997) on computers and storytelling, Bolter and Grusin (1999) on new media reimaging past media, and a historic literature on ludology (Ehrmann, 1968; Huizinga, 1971 Prince, 1982) point to the need for a distinct discourse on video games. In the years that followed Game Studies has grown enormously in popularity.

Game Studies: Concerns with the title

Despite being titled "Game Studies," the field is chiefly concerned with video games (Crawford, 2012; Perron & Wolf, 2003). Some academics, such as Mäyrä (2008), advocate for the development of Game Studies as a discipline that incorporates the study of video games, but also other game forms (e.g., board games, competitive sports, etc.). Some authors advocate that it may be more appropriate to either call the field Video Game Studies, or widen the horizons of the field to consider other game forms. Whatever the future of the field, the convention in the field today is to refer to itself as Game Studies despite principally examining video games.

Foundation paradigm questions in Game studies

In the short time the field has existed, Game Studies scholars have principally explored foundational questions. While there is not yet consensus on many of these questions, meaning that there is still a great deal of work to be done on the questions that will define the field, there is some degree of achievement for Game Studies in simply identifying key questions. When considering the field, it is clear that some consensus has been reached about what questions the field will privilege. Questions such as (but not limited to) what is a video game? (Jenkins, 2005; Murray, 1997; Nieborg & Hermes, 2008), who plays video games? (Colwell & Payne, 2000; Fromme, 2003), who is excluded from video games? (Bryce & Rutter, 2003; Greenfield, 1996; Kafai, 1996; Kinder, 1991; Yates & Littleton, 2001), where do video games take place? (Juul, 2005) how/why do gamers play video games (Aarseth, 2003; Bartle, 1996; Jackson et al., 2008; Rosewater, 2002; 2006) all define the field today. These questions delineate the early trajectory of the field and will shape the field for years to come. To illustrate the importance that the foundational questions will have on the field, focus on one particular question in the field: are games best understood narratologically or ludologically? The decisions the field makes about whether games ought to be understood narratologically or ludologically will have long-standing ramifications as the question is essentially a paradigm question. This problem in particular has been present from the origin of the field, in the first issue of *Game Studies* (2001) video game scholar Jesper Juul asked, "Do games tell stories?" The narratological prospective sees games as a new form of narrative that can be faithfully understood within existing theories of narrative. As Juul (2001) says, "[if games are stories they] are easily studied from within existing paradigms … [If not] we must start afresh." Juul contends that games ought to be understood ludologically. Ludological scholars have argued video games are best understood as a game, with an emphasis on play. There may be room for both perspectives, as Frasca (2003a; 2003b)

argues. In any case, narratology and ludology can at least be thought of as two perspectives on games that at best inform and contextualize one another, and at worst bifurcate the field into two incoherent halves. Whatever happens, whether the field privileges one paradigm over the other, sees the paradigms as mutually beneficial, or experiences a bifurcation between opposing camps with mutually exclusive paradigms, there will be corresponding long-standing effects on the field.

But even more radically, the field's formation is forever marked by the choice to ask the question of narratology and ludology. The choice of this discourse over other possible foundational questions simultaneously reflects the academic heritage of Game Studies and establishes a privileged set of questions for scholars to investigate. My concern is that questions about domestication of video games and the technological ecology of the home will be marginalized in Game Studies due to the over-emphasis in the field on the gamer and the game. As an example, consider the work on video game careers, one emerging topic of interest in Game Studies. The concept comes from Goffman (1968) who suggested a career is generally linked to ideas of progress in formal settings, yet may also take place in everyday social development (i.e., moral career). Goffman's conceptualization of career has been influential in the academy (particularly sociology) and appropriated for various theoretical work on careers. Some of the work on careers that has been conducted over the past years includes analysis on the careers of hot-rod enthusiasts (Moorhouse, 1991), football hooligans (Marsh, 1978), and sports fans generally (Crawford, 2004). Numerous authors have suggested that video gamers follow a career path (Conway, 2010; Lin & Sun, 2008; Taylor, 2006). Career paths offer a model to understand the progression of gamers through different genres, difficulties, and achievements. However, the discourse on the moral careers of gamers tends to examine the gamer and the game

only. The context in which the gamer interacts with the game in the private, social, political, gendered, religious domestic setting is assumed as equivalent across contexts. It is as if the field has somehow vacuum-packed their study of game and gamer. While I doubt that this is an intentional discrimination against questions of the spaces, places, and contexts for gaming, the oversight in the field will be problematic if Game Studies develops a tendency to address the gamer and the game in an (assumed) neutral context.

Topics of interest in Game Studies

The above brief survey is by no means exhaustive of all topics explored in Game Studies. Rather the above survey is representative of some of the prominent theoretical discussions that have distinguished the early years of Game Studies. There are a variety of social, cultural, and philosophical questions that are being explored in the academy for the first time and the questions of context and domestic spaces have not been entirely disregarded. However, as evidenced above, the greatest foci of the field have been on the game and the gamer. Less attention has been given to the role of the new medium in its context, particularly the home. As Flynn (2003) notes, "research on the impacts of [home console video games] in the home has predominantly focused on technological functionality … with indeterminacy about how this technology is being integrated into the social and cultural dynamic of the home" (p. 552). Research on how technologies are integrated into the dynamics of the home falls within the domestication of technology literature. While there are extensive literatures on the domestication of the radio, television, and telephone (Boddy, 1994; Schiffer, 1991; Silverstone, 1994, 1997; Spigel, 1988, 1990, 1992), the literature on the domestication of video games is in its infancy.

Research on the domestication of video games

Very little empirical work has been done on the domestication of console-based video games in the home. There are currently only two articles that directly address video game consoles – Flynn (2003) and Chambers (2012). Flynn's (2003) article draws heavily on the work of Baudrillard (1983), Negroponte (1996), and especially Mitchell (1998). These authors understand game consoles as digital hearths which, "when attached to a display device … such an application presents itself as a hearth that radiates information instead of heat" (Mitchell, 1998, p. 99). Framed by this understanding Flynn attempts to

> develop a more sophisticated understanding of the console in relation to the changing patterns of the everyday and socio/spatial dynamics of the home, [to] draw on the disciplinary areas of geography, design history as well as the emerging area of game studies. (p. 552)

In order to develop this more sophisticated understanding, Flynn analyzed four suburban homes in Brisbane, Australia. In her research she observed the patterns of play (who played the games), how the games were played, and the social relations of the household in relation to the games. The research was, "undertaken for an hour-and-a-half in the living room of each household with video-recorded observation of gameplay followed by an interview with the players" (p. 565-6). Informed by this ethnographic research, the paper then described various "visions of the digital hearth" (p. 573) – the various ways in which families had constructed and constituted video games, their meaning(s), their purpose(s), their rule(s), etc. In the Waller home, Flynn uncovered deep intuitive notions that "privileged male access to games and reproduce girl gamers as not being skilled enough" (p. 567). These findings were highly congruent with the trends other authors have identified (Jenkins, 2005; Schott & Horrell, 2000). The result was male privilege at the site of the digital hearth. In the Gillespie home, the family had conceptualized the video game space as belonging to their 13-year-old son – "Jack's space" (Flynn, p. 567) and in so doing had represented the hearth as a place for youthful leisure and

recreation. In the Steadman home, the two emerging adult sisters (Sarah and Eleanor) use the various technologies in the hearth space, including video games and computers, in a variety of social and professional ways. Flynn comments that the because the Steadman home is entirely comprised of women (Sarah, Eleanor, and their mother) the vision of the digital hearth as a female space for leisure, socialization, and professional endeavors is unique. Finally, in Mark Forbes home, the digital hearth functions as a site of friendly competition that brings people together in social settings. Mark Forbes (age 21) reports frequently playing video games in a multiplayer context with friends as a social activity often "associated with social competition, drinking, conversation and wagers" (p. 571). Flynn's work is enormously interesting to scholars interested in gender relations and space, video games, domestication of technology, or social construction of the home as she is able to offer rich examples of various visions of the digital hearth grounded in Everyday Life. While Flynn acknowledges that her work is constrained to her Australian context, her work is "part of an emerging discussion about the significance of gaming in the domestic environment" (p. 573).

Chambers (2012) offers a fascinating study of how commercials promoting the Nintendo Wii compare to research on emerging patterns of gaming between parents and children in the British context. Chambers employed a method of comparing commercials for the Nintendo Wii against actual family play patterns in the home, as informed by "research and debates on the domestication of technology" (p. 70). Chambers notes that the video game industry has become aware of the domestication difficulties that video games face: "In response to parental anxieties about the disconnection of youth from family life new media technologies such as Nintendo Wii have been encoded as family-centered devices to extend their markets beyond former perceptions of the standard male user" (p. 70). The intentional marketing and design decisions – to use

Chambers' phrase, the 'encoding' – that come as a response to parent anxieties make for a video game console that is packaged to play on domestic notions of harmony and togetherness. Chambers suggests that Nintendo's calculated marketing and design choices in presenting the Wii as a facilitator of family connection, and therefore friendly to the integrity of the domestic space, successfully differentiated the Wii as a family console:

> These imaginary gaming families echo an earlier type: the 1950s Kellogg's cornflake family: white, nuclear, middle class and suburban. Children are placed centre-stage in the Nintendo Wii commercials, shown instructing or negotiating with adults in the playing of games. (p. 74)

In contrast, the Xbox and PlayStation, have cultivated an image and functionality that is incompatible with (perhaps even an antithesis to) family connection and togetherness: "[d]uring the mid-1990s, the Sony PlayStation console was perceived as the preserve of teenage boys and men in their twenties with spare income and loose family ties" (p. 72). Chambers found that the consumer electronics industry made "strong claims" (p. 75) that parents believe family video gaming is beneficial to families. However, Chambers puts more stock in independent surveys, which "provid[e] important insights into the experience of video gaming as a domestic media technology" (p. 75). Chambers cites surveys that found that "over a third of parents had played video games with a 3-16-year-old in the last six months" (p. 76), but adolescences tend to still be mainly solitary players and in fact generally desire independence to play games away from parents. Further, gender constituted a major factor in terms of gaming. Mothers were more likely than fathers to play active technology, fitness, educational, or dance/music/singing games with a child; fathers were more likely to play fighting and strategy games with a child. In short, though video game console do serve in part to connect families, the vision that Nintendo is selling is not entirely like reality:

> Preliminary findings … suggest that both children and parents *privatise* communal space to exclude the other party from gaming. Despite the advertising hype promoting family gaming, solitary play remains the most popular mode of video game play by young people. Parental wishes to control or monitor their children's home-based leisure conflict with young peoples' desires for independence and are exacerbated in single parent and post-divorce families where children move between two households. (p. 78)

I hope to address many of the same questions Flynn and Chambers have addressed, though there will be at least four key differences. First, I will join the conversation from a phenomenological methodological stance. Second, I am interested in sampling emerging adults as opposed to family units. Third, I am working in the Canadian context, as compared to Flynn in working in the Australian context and Chambers in the British context. Finally, I am committed to understanding the process of domestication in terms of a larger process that happens inside the Moral Economy between technological native children and technological immigrant parents. Given the multitude of differences between my research and the miniscule amount of research that has been done to date on the domestication of video games, this work represents an important contribution to a currently under-subscribed academic conversation.

Concluding: The project from here

This chapter has explored the foundations of the present research project. Specifically, I have explored the theoretical conception of Home, Technology, Domestication, Everyday Life, Emerging Adulthood, as well as Video Games and Game Studies. These concepts will act as conceptual signposts that guide the way as I attempt to address understand what themes characterize emerging adults' phenomenological experiences of domestication in the context of growing up as video game natives under the care of video game immigrant parents? Ideally, this research will offer themes on domestication of video games, domestication generally, and the dynamic between technological native children and technological immigrant parents. In light of

this introduction, the next chapter will consider the historical and cultural context of video games from introduction into the public marketplace to present-day.

Chapter 2: A cultural context

Introduction: Why video games?

As the field of Game Studies has demonstrated, video games are a medium of enormous cultural and economic significance that is unlikely to be dislodged in the foreseeable future. As the video game console is primarily built and marketed to be consumed in the home, the most immediate effects of the technology will be felt in the home. In order to intelligently understand the effects, conflicts, and opportunities that are opened by video games – and the larger narrative of the lives that are implicated in the technoscape of which console based video games are suddenly a ubiquitous feature – the academy must employ a variety of methodological tools toward the problem of the realities and effects of console based video games in the home. In this chapter I offer a short history of console based video games that contextualizes the interviews that I engaged in with the participants of my study.

Setting the context: A history of video game consoles

Before exploring the domestication of the video game console, it is valuable to understand the social, economic, political context of video games generally and console-based video games specifically. This cultural context/history offers a picture of the Everyday Life context where domestication has taken place. Starting with Ralph Baer and the Magnovox Odyssey, this chapter traces the development of the video game industry to today. This history helps to contextualize the arrival of video game consoles in the home by providing a sketch of the development of various gaming consoles, the growth of the video game industry as an economic and cultural powerhouse, and tracing the tensions around video games.

Ralph Baer: Pioneer of the home video game console

On September 1, 1966, Ralph Baer, a Division Manager and Chief Engineer for Equipment Design at New Hampshire-based Sanders Associates, scribbled out four pages which

described an idea for electronic television games (Baer, 2010; Winter, 2010). Baer had long hoped to reimagine the television by adding some type of "interactive game" component (Winter, 2007). The four hand-written pages that Baer wrote outlined a vision for a "large variety of low-cost data entry devices which can be wired by an operator to communicate with a monochrome or color TV set of standard, commercial … type" (Smithsonian National Museum of American History, 2011). While the initial vision of video games was enormously restricted, the essential concept was born – and shortly thereafter patented – on the strength and ingenuity of these four pages. Baer's vision would ultimately come to fruition in the Magnavox Odyssey.

The first home console

In 1972, the Magnavox Odyssey was released to the public. The Odyssey was the first commercially available video-game console that could be attached to the television (Hertz, 1997; IGN Entertainment, 2013a). The Odyssey is more often remembered for its important place in video game history than for its commercial success. The console – which was little more than pong with magnetic overlays and elaborate rule books – sold for $100 per unit. In today's dollars, the Odyssey's sticker price would be approximately $550 (Bank of Canada, 2013). The steep price, coupled with a poor advertising campaign that left many consumers believing that the Odyssey would only work on Magnavox television, lead to overall poor sales for the Odyssey – somewhere in the range of 200,000 – 300,000 units (Miller, 2005; Winter, 2010).

The emergence of PONG and the cartridge based console model

Despite the Odyssey's uninspiring sales, by the mid-1970's, the video game concept had been proven and console-based video games were tentatively commercially viable. Between 1972 and 1977 a number of companies rushed into the video game market. Atari's much celebrated PONG was a smash hit due to a successful partnership with department store Sears in

1975. In 1976, Coleco's Telstar and Fairchild's Video Entertainment System (later renamed the Fairchild Channel F) were released. The Fairchild Channel F is noteworthy for being the first video game console to use a programmable ROM cartridge (Weiss, 2007). Cartridges would become the dominant model for video games until the mid-1990's when Sega and Sony took a risk by releasing the CD-ROM based Saturn and Playstation, respectively (Wolf, 2007). It was clear that a new industry had emerged, and the rush to get in 'on the ground floor' was on. Jeff Ryan notes in his 2011 book *Super Mario*, "in the home console market … The market began with its own mini-bubble, when Atari released *Home Pong*. Literally more than a hundred competitors followed, all with their own *Pong*-style games" (p. 51). Dillon (2011) suggests that "[m]ore than 70 companies all around the world … developed their own version of [Pong]" (p. 22). In these early days home video games were synonymous with Pong – a trend that would continue until 1977 when the face of gaming would change with Nolan Bushnell's Atari 2600 (IGN Entertainment, 2013b).

Atari 2600: The first dominant video game console

In 1977 Atari released its own cartridge-based console, the Video Computer System, later renamed the Atari 2600 (Ryan, 2011). The Atari 2600 was the video game console that moved video games from Pong-at-home to the console and cartridge model (sometimes called the razor and blade model) that is still popular today. Despite not initially selling, Atari would go on to greater success as consumers became more comfortable with video games and more aware that the Atari 2600 could play more than just Pong. Atari, behind the brand recognition of the 2600, would lead the charge in video games between 1977 and 1983. It seemed as if the organization would never – indeed could never – be challenged as the de facto number one video game brand in North America. Throughout 1982, "Atari executives were confident they would be able to

meet a 50% year-over-year increase in sales, as stated in their financial outlooks" (Dillon, 2011, p. 70). However, on December 7, 1982 Atari declared that their actual growth in sales was only approximately 10%. Warner Communications, who at this point owned Atari, immediately lost 32% of its market price (Dillon, p. 70). The great video game crash of 1983 had begun.

Four factors that led to the crash

Dillon (2011) suggests, there were four distinct factors that lead to the "dramatic implosion of the market … public perception, over-saturation of low quality games, transitioning to a new generation, and home computer wars" (p. 70). By focusing on just one, public perception, it is possible to understand how important it is for designers to tame or domesticate technology in research and development. By building a product that is unlikely to be accepted in the Moral Economy, designers expose their products to the risk that they will be banished from the home.

Public Perception

Like most new media, video games were viewed with a great deal of suspicion and distrust by the cultural vanguards. The inability, or perhaps disinterest, of the video game industry to manage this suspicion and distrust lead to public image challenges for numerous brands and video games generally. For example, Atari's willingness to license to third-party game developers – without any real guarantees about quality control – contributed to consumer skepticism about Atari games. In one particularly damaging incident, Atari found themselves in the public eye when third-party developer Mystique created a line of pornographic games for the Atari 2600. One of these games, *Custer's Revenge* (1982), gained notoriety when Native American and Women's groups targeted the game for its offensive content (the rape of Native American Women) (Brathwaite, 2007; Kent, 2001). Mystique was sold to another game

developer shortly thereafter, but the tarnish on both Atari and video games was long-lasting. Other games, such as the arcade game *Death Race* featured "players … competing by driving a car to run over stylized zombies. Most people, though, felt the objective of the game was to mercilessly run over pedestrians like in the *Death Race 2000* movie" (Kent, 2001, p. 71). *Death Race* was so controversial, in fact, that it was even discussed on CBS's *60 Minutes* (Kent, 2001). These early controversial games gave rise to critics like Ronnie Lamm, a mother who "was invited to famous TV talk shows where she described how bad video games were for young people by encouraging them to waste money, energy, and valuable time" (p. 71). This negative perception of video games has had a deep and lasting impact on the ways that families have viewed, and simultaneously domesticated, video games

The aftermath of the crash

The crash effectively vacated the market: "System after system ended up being marked for clearance prices. What used to cost $300 was ratcheted down in $50 instalments until it was being given away for less than it cost to manufacture" (Ryan, 2011, p. 54). While the crash was devastating in North America, there were regions of the world which felt no effects from the crash – particularly Japan (Ryan, 2011). Japanese retailers had only stocked a few of the American video game consoles and retained a strong local economy and culture in video games. In the wake of the American crash, Hiroshi Yamauchi, the strong-willed president of Nintendo, saw an opportunity to "enter a billion-dollar market where others had just forced themselves out" (p. 60).

Nintendo avoids Atari's pitfalls

Nintendo had released the Famicom in Japan in 1983 (Goldberg, 2011). The console "started slow. But soon doe-eyed kids lined up and camped out to buy it" (p. 66-7). The

Famicom did remarkably well in Japan. Nintendo sold "more than 19 million copies in Japan … Japan had about 120 million people at that time, so almost one in six owned a Famicom" (Ryan, 2011, p. 75). With the arrival of the Nintendo Entertainment System (NES) in North America, video game consoles began entering North American homes as a ubiquitous feature of modern life – not unlike the television, VCR, or radio had in decades past. Over 34 million Nintendo Entertainment Systems would be sold in the U.S. and over 61 million worldwide (Nintendo, 2010). By "[l]earning from the Atari experience, that quality of games and not simply volume was key to success, Nintendo games were marked by dramatically improved pacing, visuals, sound, and dynamism, thus greatly enhancing the experience of play" (Flew & Smith, 2011, p. 124). Nintendo successfully outsourced the development of games to third parties while still retaining quality control. One of the ways that Nintendo managed to retain such strict control was by including 72-pin cartridges. These cartridges accommodated the 10NES chip, a lockout chip (Ryan, 2011). Without the lockout chip, the game would not turn on. This measure served to allow Nintendo to keep control of who would be allowed to produce games for the NES. Further, each third party developer was limited to a maximum of five games a year. Though this practice would not win Nintendo friends, but it helped Nintendo to successfully control the quality and style of games that were produced. The importance of this pin is difficult to overstate as it allowed Nintendo to have complete control over the content of all video games produced for the NES. By controlling the content of the games Nintendo ensured that their public relations office would never have to deal with a game like Atari's *Custer's Revenge.* Over the lifetime of the NES, over 500 million pieces of software would be sold for the NES (Nintendo, 2010). The success of Nintendo must be in part attributed to Nintendo's understanding of the private concerns with parents. By domesticating video games in Research

and Development Nintendo successfully avoided where Atari failed so abysmally. The more family-friendly titles that came out of Nintendo were well received by the domestic sphere.

The role of the NES in creating the economic and cultural dominance of video games

The NES, together with various corporate supports (magazines, movies, television programs, advertisements, etc.) "nurtured a gaming subculture, while also using this infrastructure to gain player feedback about the games" (Flew & Smith, 2011, p. 124). By the late-1980's gaming subculture had risen to mainstream in North America. Two 1988 milestones serve as the symbolic makers of the arrival of video games as a powerhouse in the media-scape of North American economics and culture – the NES rising to the rank of the best-selling toy of 1988 (Kline, Witheford, & de Peuter, 2003) and the emergence of Nintendo Power Magazine.

1988 as the economic arrival of video games

When planning their North American launch, Nintendo had managed to broker a partnership with Worlds of Wonder – a toy company started by five ex-Atari executives (Kent, 2001). The company had enjoyed success with back to back hit toys – the Teddy Ruxpin plush bear and Laser Tag – and were regarded "a major player in the toy industry" (p. 301). Nintendo of America president Minoru Arakawa successfully persuaded Worlds of Wonder to distribute the NES – a move that was imperative in the NES gaining instant national exposure. With Worlds of Wonder heading the distribution the NES garnered both an instant network of distribution along with instant credibility by association. The wisdom of the deal with Worlds of Wonder was proved in 1988 when Nintendo sales topped 2.3 billion USD and was crowned best-selling toy of the year (Forman, 1989). Best-selling toy of the year was particularly amazing feat because it was only five years previously that the great crash had vacated the home video game market. Nintendo re-established consoles as a legitimate entertainment option. In an economic

sense, 1988 marks the arrival of the video game systems in North America (Kline, Witheford, & de Peuter, 2003). In its run, the NES would go on to sell over 34 million consoles in the Americas and over 230 million pieces of software (Forester, 1993; Nintendo, 2010).

1988 as the cultural arrival of video games

In the early years of Nintendo's market penetration into North America, Nintendo pursued a policy of aggressive marketing, merchandising, and commercialization of their characters, games, and culture. While the intent of Nintendo's cleverly disguised advertising was to develop brand affinity, they inadvertently advanced, if not established, a video game culture. Particularly, Nintendo merchandised Mario in an effort to cultivate a mascot. Jeff Ryan has put together an exhausting, if not exhaustive, list of Mario merchandise in his book *Super Mario* (p. 160-2). Mario also began breaking into other media. He was the title character for a series of books, a children's show, and a movie. Besides Nintendo's aggressive merchandising of Mario, in 1989, Nintendo was approached by Universal about "making a movie about the allure of its games" (p. 98). Nintendo seized this opportunity to have Universal produce what was essentially "an hour-and-a-half commercial for [*Super Mario Bros. 3*]" (p. 98). The result was the 1989 movie *The Wizard* starring Fred Savage, Luke Edwards, and Jenny Lewis.

However, perhaps nothing was more important to the development of video game culture than a simple magazine. In order to develop affinity and brand loyalty among young gamers, Nintendo began producing *Nintendo Power* in 1988. *Nintendo Power* was released bi-monthly and was approximately 100 pages of tips, game maps, and descriptions of upcoming games (Kent, 2001). The magazine ran no advertisements, although it has been pointed out by many – including David Sheff's 1993 polemic, xenophobic, anti-Nintendo book *Game Over: How Nintendo zapped an American industry, captured your dollars, and enslaved your children* – that

the magazine was in essence a 100-page advertisement for Nintendo (p. 178-9). While it is true that Nintendo created *Nintendo Power* to protect and further their own corporate interests, the unintended effect was that it served to galvanize a generation of youth who were sharing common adventures.

The post-1988 world: Video game natives

Assuming 1988 does symbolically mark the rise of video games and gamer subculture moving from a fringe to a mainstream, we could consider any person born in 1988 or beyond to be native to video games and to gamer culture. This does not mean that all people born after 1988 are gamers or even that they necessarily grew up in a home that owned a video game console. However, the post-1987 generation grew up in a world where:

1) a billion dollar North American home video game market has always existed (1987 was the last year that North America saw revenue below a billion dollars) (NDP sales figures, n.d.);
2) video game mascots such as Mario were always enormously recognizable – "[i]n 1990 a Q Scores consumer survey suggested [Mario] was more recognisable to American children than Mickey Mouse" (Russell, 2012, p. 130);
3) there has been an ongoing social and academic debate about the effects of video games (Anderson, Gentile & Buckley, 2007; Johnson, 2005; Kirsh, 2012; Provenzo, 1991);
4) video-game immigrant parents and guardians have struggled to integrate video game consoles into the home in a way that is congruent with the values of the home (much like the television or radio in generations past);
5) a subculture of other gamers that understood and appreciated video games existed and offered opportunities for camaraderie and connection.

While it was an iterative process that brought video game consoles to the level of ubiquitous participation in the 'typical' North American home (or at least typical North American home with children), 1988 can be thought of as the year when 'turning back' was no longer an option. Video game consoles and video game culture had arrived (Williams & Smith, 2007).

The video game industry post-1988

Numerous changes and challenges awaited the video game industry post-1988. Nintendo's effective monopoly on the North American video game market was challenged in 1989 when Sega released the Genesis. Marketed as 'edgy' and 'radical' Sega attempted to marginalize Nintendo as old and boring. The rivalry between Nintendo's Super Nintendo Entertainment System (SNES) and Sega's Genesis was played out throughout the early 1990's. Sega's next console – the Sega Saturn (1995) – sold poorly, in large part due to competition with a new arrival to the video game market – Sony.

Sony's PlayStation, the product of an unsuccessful partnership with Nintendo, became Nintendo's great competitor (Ryan, 2011). The PlayStation arrived in North America in 1995 and managed to establish itself by focusing on an underserved niche – adult gamers. PlayStation produced darker games that dealt with more mature content, offered more expansive worlds (as a result of the CD-ROM technology), and looked and felt grittier and less like Nintendo's cartoon worlds. The wisdom of venturing into darker territory – which Nintendo had chosen to stay away from – was proven as a generation of children who had grown up with video games became teenagers and young adults. The pressure of Sony's PlayStation, together with the Nintendo 64 (1996) was more than the Saturn could withstand. Sega discontinued the Saturn in favour of developing their next console – the Dreamcast.

The Dreamcast was released in North America in 1999 and though it was well regarded by video game critics, it was too little too late to save fledgling Sega, who was now firmly in third place. The Dreamcast was plagued by a small game library and the imminent release of Nintendo's GameCube (2001) and Sony's PlayStation 2 (2000) – which would go on to be the bestselling video game console of all time. If this competition was not enough for Sega, Microsoft entered the video game market in 2001, releasing the Xbox. Sega became a third party

developer. Many speculated that Nintendo may be on the way out. The Nintendo 64 and GameCube were panned as passé, a step behind, and restricted to a young audience. Nintendo continued to lose ground as Microsoft released the Xbox 360 (2005).

Given the pressure that Nintendo was facing, the Wii (2006) was a major boon to struggling Nintendo. The Wii moved Nintendo firmly back into first place in the world of console based video games. Yet, unlike the PlayStation 3 and Xbox 360, Nintendo employed old technology that made the Wii easily the least graphically and technically advanced of the three consoles. What Nintendo did so well, however, was appeal to parental anxieties about children's disengagement from family life through video games by portraying the Wii as a family meeting and connecting place. As Chambers (2012) says, "[i]n response to parental anxieties about children's disengagement from family life through new media use, industry-led claims that video gaming can foster family harmony are appealing" (p. 72). The Wii in particular – through a number of engineering (i.e., shaping the game controller like a television remote) and marketing choices (a marketing campaign that presented the Wii as a console for the whole family) – managed to sell an image of the console as a type of digital hearth with room for the whole family (Flynn, 2003). The Wii makes an interesting study because it is a masterful response to anxieties around video games as wilderness that parents are unable to tame. By successfully marketing/engineering the Wii as a domesticated technology, Nintendo was able to outsell their competitors.

Today there are three consoles that hold the vast majority of market share – the Xbox 360, PlayStation 3, and Wii U. New Xbox and PlayStation consoles are expected to be announced soon. Along with the razors and blades business model that would see companies break even or lose money on the cost of the console (razor) in order to make significant profits

on each game (blade), video game consoles all feature some sort of digital marketplace. These marketplaces allow gamers to purchase downloadable content and games. The emergence of video game consoles as functional point-of-sale machines presents new opportunities and challenges that were not present in the early years of video games. For emerging adults who grew up without these and other technical capabilities (e.g., internet capability, motion detection technology, etc.), video game consoles represent a new technological wilderness to domesticate.

Video games, culture and society: A sketch of our contemporary milieu

In contemporary North American society, video games are an economic and cultural force. While there have been public image challenges for video games, which contributed to their regulation, there has never been real sustained threat of censorship nor has there been the threat of diminishing market share. In this section I review the mammoth economic and cultural power of video games in North American culture. I then recount the public image challenges (including media and government attention) that have plagued video games through the years. This review helps contextualize the political, media, and social forces at work that frame the background against which parents and guardians have made their decisions about video games.

The video game industry as an economic and political force

Video game consoles are deeply entrenched as a part of North American (and global) culture and commerce (Durkin & Aisbett, 1999). The Entertainment Software Rating Board (ERSB), "the non-profit, self-regulatory body that assigns ratings for video games and apps so parents can make informed choices" (Entertainment Software Rating Board, 2013), notes on their website that 9.9 billion dollars of revenue was generated in 2009 from console based video games sales, just short of the 10.65 billion that motion pictures took in the same year (Nash Information Services, 2012). Flew and Smith (2011) say that "global revenues in the games

sector were estimated to be at least USD $30 billion in 2006" (p. 123). The budget for video games often rival Hollywood blockbusters, ranging from tens of millions to a hundred million plus. In 2005 the average total cost of making a high quality, marquee game (AAA game) was $59 million (DeMaria, 2007). The video game industry is even represented by a number of special interest groups/lobbies. The Entertainment Consumers Association (ECA); supported by virtually every major player in the video game industry, works to protect the interests of the industry. The ECA describes itself as:

> the non-profit membership organization that represents consumers of interactive entertainment in the US and Canada. The association was founded to give gamers a collective voice with which to communicate their concerns, address their issues and focus their advocacy efforts. As such, the ECA is committed to a host of public policy efforts, empowering and enabling the membership to effect change. (ECA, 2013)

The ECA has sister organizations, such as gamepolitics.com and gameculture.com, that advocate for the video game industry and inform the public on issues pertaining to gamers. Another major player in the video game lobby is the Entertainment Merchants Association which states on its website is "dedicated to advancing the interests of the $35 billion home entertainment industry" (EMA, 2013). Suffice to say, the video game industry is an economic powerhouse that is unlikely to be dislodged soon.

Video game culture in North America

Culturally, video games are a ubiquitous feature of contemporary life (Vorderer & Bryant, 2006). Approximately 67% of American households play video games. Far from being child's play, the average gamer is 34 years old and the average gamer spends 8 hours a week playing video games (Entertainment Software Ratings Board, 2009). Several popular websites are dedicated to video game news, culture, and humor – i.e., IGN.com (#143 Canadian Alexa Rank as of January 13, 2013), gamespot.com (#195 Canadian Alexa Rank as of January 13,

2013), g4tv.com (#2954 Canadian Alexa Rank as of January 13, 2013), dorkly.com (#5463 Canadian Alexa Rank as of January 13, 2013). There is even a highly successful perpetually touring orchestra that plays only video game music (Mystical Stone Entertainment, 2005). Perhaps the best evidence that video games are a ubiquitous feature of contemporary life is the astounding amount of time dedicated to them. Jane McGonigal notes in her book *Reality is broken:* "By age twenty-one, the average young American has spent somewhere between two and three thousand hours reading books—and more than *ten thousand* hours playing computer and video games" (p. 266). To take one noteworthy example, it has been calculated that players on the enormously popular Massive Multiplayer Online Role Playing Game (MMORPG) World of Warcraft (WOW) have logged about 50 billion hours, or 5.9 million years, since 2004 (Hotz, 2012).

Video games and technophobia

The economic and cultural rise of video games has not been without detractors and difficulties (Walkerdine, 2007). Various critics have denounced video games as unparalleled destructive force that would erode children's motivation, violate morality, create violent citizens, and generally wound society at large. Starker's 1989 book *Evil influences: Crusades against the mass media* offers a compelling portrait of how new media has been demonized throughout history. Starker even suggests that phobia of new media was present from the formation of Western culture: "Socrates was condemned to death for his innovative use of the medium of speech … [it was] deemed a corrupting influence upon his youthful scholars" (p. 7). Rock and roll, the waltz, the printing press, the radio, the television, and any number of other now ubiquitous features of contemporary society have been hailed as heralding doom. Video games have by no means been immune to this technophobia. Video games have experienced "moral

panics" which are common to new media and emergent cultural forces. Cohen (2002) outlines six stages of moral panics:

- A condition, episode, person or group of persons emerges and is defined as a threat to society;
- The nature of the condition, group, etc. is presented in a stylized, stereotypical way by mass media;
- Moral barricades are manned by 'the establishment' (editors, bishops, politicians, etc.);
- Socially accredited 'experts' pronounce their diagnosis and solutions;
- Ways of coping are evolved or resorted to;
- The condition then disappears and becomes less visible.

Cohen's model is enormously helpful for understanding video game controversies. Particularly, Cohen's identification of socially accredited 'experts' and the image of the moral barricade is quiet apt, as evidenced in both the pop-literature and pseudo-academic writing on video game effects and the history of the social and political actions taken against video games. However, I would offer one critique to Cohen's model. While Cohen uses the language of 'coping' it may be more valuable, in the case of technologies in the home, to see 'coping methods' as the iterative, negotiation process of domestication. Rather than coping with an ailment, it may be more productive to see the fifth step as the re-arrangement of values, relationships, spaces, and institutions to accommodate the newly arrived technology. As an example of how society tends to integrate and domesticate technologies into the home and daily life one might take as an example the similar moral panics that characterized the arrival of comic books (Gabilliet, 2005), the telegraph (Standage, 1998), motion pictures (Czitrom, 1982) and other technologies (Starker,

1989). Each of these technologies, enormously contentious upon arrival in society, were all integrated into daily life as a matter of course through re-arrangement of values, associations, relationships, etc. While occasional detractors still offer critiques of ubiquitous technologies, the social debate is largely settled.

Chapter 3: Methodology

Choosing phenomenology

As I have chosen the phenomenological method I begin by justifying this choice over other qualitative methods. This will be an especially important step as there is a rich history of ethnographic research in the work on domestication (Bakardjieva, 2005; Flynn, 2003; Lally, 2002; Tinnell, 1985) and my deviation from this trend will likely prompt some curiosity. While ethnography has been enormously useful for understanding domestication as enacted process, this methodology tends to privilege the enactment of domestication as being of central importance. However, domestication is simultaneously an enacted process and semantic orientation (Lehtonen, 2003). By semantic orientation, I mean the complex of associations, relations, and impressions that comprise the intuitive orientation and symbolic position of a given ICT for an individual, household, or culture. The divergence between semantic orientation and enacted process can be found in the (dis)connections between what individuals and families do with technologies and how they feel about, make sense of, and represent technologies symbolically. There is often considerable cognitive dissonance between the way that technology is used and the meanings, tensions, ambivalences, and ideals about technology that contextualize the use (Buchanan-Oliver & Cruz, 2011; Son, 2009). The meanings that background the enactment of technology inform the experience of technology and are vitally important for the researcher interested in the domestication process. In order to reverse the trend of previous research and privilege semantic orientation above enacted process, I have taken a contrary methodological approach in this research and chosen a phenomenological exploration of the domestication of console-based video games. While ethnography has offered extensive insight on domestication as a lived, enacted process, it has been less concerned "with *understanding* human behaviour from the actor's own frame of reference" (Bogdan & Taylor, 1975). As such, I

rely on interviews to inform my study rather than an embedded observation. Further, I privilege the voice of the participant as the integral piece of evidence of phenomena.

The need for a phenomenological method over an ethnographic method: Accessing the past

In order to privilege domestication as understood through semantic orientation I have chosen phenomenology; however, this is not my only reason. Additionally, the phenomenological method is essential because ethnographic methods would prohibit me from accessing past enactments of technology. As the major locus of attention for this research is in the past – or more properly, in the memories and experiences of my participants – I must rely on participant's recollection to understand how families formerly constituted the role of console-based video games in the home. An ethnographic study of today's home would offer few insights on the domestication process in the early days of video games arriving in the home. Video games have had decades to settle into the technoscape of the home. At this point in the domestication process the role, integration, purpose, and meanings of video games are entirely unlike the initial stages of domestication. Perhaps a longitudinal ethnographic study may have been able to address the changes in the domestication process through the years; however, at this juncture this qualitative methodology is no longer available. The best qualitative methodology available to me at this juncture to interrogate the past is phenomenology.

Considering truth claims

In any empirical research project the foremost critical question is: How does one know that the knowledge gained is valid, reliable, and true? Indeed, this critical question undergirds all truth claims (Wertz et. al., 2011). Across various historical, cultural, religious, and academic contexts the question has been presented and re-presented – and consequently answered – in a multitude of ways (Deutscher, 1973; Douglas, 1970). Both in Everyday Life and in the academy

there are particular constellations of ontological and epistemological claims that are privileged above others. As an example, in the Academy, prophecy, group consensus, and intuition have all been marginalized, whereas replicable methods, quantifiable phenomena, and results that increase the province of human control have all been privileged (Morgan, 2011). The reasons for the unequal status of truth claims come out of a long historical process which is explored in brief below. In any case, the epistemological and ontological claims of researchers are embodied in the methodology employed (Denzin & Lincoln, 1998). My thesis endorses one truth claim that has been historically marginalized in the wider Academy, the claim that the experiences of individuals (unaltered by quantitative analysis) offer valid truths. In pursuing a phenomenological project, I begin the historical context that frames phenomenology along with a discussion of my assumptions and orientation. I then go on to explain in detail how I collected and analyzed my data. I close the chapter by noting the scope and restrictions of my research.

Phenomenology's philosophical orientation

Since the Enlightenment sparked the shift from Pre-Modernity to Modernity, Western epistemology and culture have been informed, if not dominated, by positivism and the scientific worldview (Darroch & Silvers, 1982). Positivist epistemology is marked by a few common features: the belief that the world is ultimately knowable through the systematic, mathematized study of our senses; the belief that objectivity (through the elimination of bias) makes for more precise study; the belief that the universe is ultimately neutral and value free; and the belief that by advancing human knowledge humanity will progress (Comte; Durkheim). As numerous critical theorists have pointed out, progress often takes the form of increased productivity (Popper, 1957) and is largely therapeutic in nature (Nietzsche, 1872). While adherents to the positivist project have produced much data, results, and findings that are generally thought of as

advances (e.g., enhanced medical care, increased industrial efficiency), there have been corresponding complications (e.g., human-created epidemics, increased industrialization of human beings). Unfortunately, positivism has not remained restricted only to non-reflexive, natural phenomena but spilled out beyond its original privileged realm of the so-called 'natural sciences' into social science. Positivism in the context of social science "traces its origins to the great social theorists of nineteenth and early twentieth centuries and especially to Auguste Comte and Emile Durkheim" (Bogdan & Taylor, 1975, p. 2).

In the last century, there has been a steady growth in dissention from positivist, scientific epistemologies. This dissention is partially a result of disillusionment with the world that positivism has created (e.g., two World Wars, Mutually Assured Destruction, mass extinction), a re-examination of the central philosophy of positivism, and a growing dissatisfaction on the part of various marginalized groups. The result has not been the destruction of positivism; indeed, positivism continues to thrive in a variety of academic and industry settings that prize the control (allegedly) gained through the positivist method. However, these critiques and alternative epistemologies have meant that positivism is no longer normalized. Researchers no longer have to assume positivism as the standard of the field against which their work will be judged. In turn, qualitative methods have greatly advanced as truth-claims which merit reckoning.

Husserl and early phenomenology

In the past century, no one has been more influential in shaping phenomenology as a philosophy than Edmond Husserl. Husserl was born in Prostejow, Moravia – which is today Prostějov, Czech Republic – and lived from 1859 to 1938 (Sandmeyer, 2003). Husserl is generally regarded the father of contemporary phenomenology (Giorgi, 2009, p. 4). During his life, Husserl "published only about a half-dozen books, but left around 40,000 pages in

manuscript form for his followers to work on" (Giorgi, 2009, p. 4). A dissenter from positivism, Husserl maintained that knowledge stemmed exclusively from experiences and that "the relation between perception and its objects was not passive. He argued that human consciousness actively constitutes the objects of experience" (Holstein & Gubrium, 1998, p.138). Phenomenology therefore attempted to understand a so-called 'given' from the perspective of the conscious individual – "a precise analysis of how the 'given' is experienced by the experiencer" (Giorgi, 2009, p. 4). This insistence that bias (or perspective) is a necessary and inescapable component of experience was in direct conflict with the positivist notion that bias is a contaminant to be eliminated in the context of research. Therefore, Husserl put particular attention on studying phenomena and attempted to escape the problem of doubt that plagued the metaphysical claims that positivism tended to produce (Bauman, 1993, p. 21-3). Husserl's epistemological stance is perhaps best summed up by his famous phrase 'back to the things themselves'. Husserl strived to privilege experience as the primary epistemological focus – a radical epistemological reorientation in the early 20th century. Husserl has been followed by a rich tradition of thinkers who have been marked by the phenomenological tradition highlighted by Heidegger, Merleau-Ponty, Sartre, and continental philosophy generally. In the American context, one phenomenological thinker who has been deeply influenced by Husserl is Clark Moustakas. Regarding Husserl's impact on his work, Moustakas says:

> Husserl himself realized that his work would be of no value to closed minds, to those who have not known the despair of 'one who has the misfortune to be in love with philosophy'. This being 'in love with philosophy' captures me also and evokes a desire to employ phenomenology in discoveries of knowledge and in theories and applications of human science. (1994, p. 25)

Moustakas' 1994 work *Phenomenological Research Methods* informs the methodological orientation of my work and I borrow heavily from it, though I do not entirely replicate his phenomenological method.

Moustakas' Phenomenological method

Moustakas (1994) outlines seven broad steps that summarize a method of phenomenological research.

1) Discovering a topic and question rooted in autobiographical meanings and values, as well as involving social meanings and significance;
2) Conducting a comprehensive review of the professional and research literature;
3) Constructing a set of criteria to locate appropriate co-researchers [i.e., participants];
4) Providing co-researchers with instructions on the nature and purpose of the investigation, and developing an agreement that includes obtaining informed consent, insuring confidentiality, and delineating the responsibilities of the primary researcher and research participant, consistent with ethical principles of research;
5) Developing a set of questions or topics to guide the interview process
6) Conducting and recording a lengthy person-to-person interview that focuses on a bracketed topic and question. A follow-up interview may also be needed;
7) Organizing and analyzing the data to facilitate development of individual textural and structural description, a composite textural description, a composite structural description, and a synthesis of textural and structural meanings and essences. (p. 103-4)

These steps are organized into three constituent pieces: "Methods of Preparation, Methods of Collecting Data, and Methods of Organizing and Analyzing Data" (p. 104). While preparation and data collection are relatively straightforward, organizing and analyzing data (the seventh step in the above process) is actually itself a larger multi-step process. For this reason, I detail preparation and collection below in two sections, then detail data organization and analysis over the course of a number of sections.

Moustakas' methods of preparation

To begin, it is essential to formulate a question that has "both social meaning and personal significance" (p. 104). The question formulation is important because the phenomenological attitude assumes that the researcher is an engaged participant in the research and thus the curiosity of the researcher is an important feature to bring to bear on research. As such, the excitement, passion, and curiosity of the researcher must be engaged by the research question. After delineating a research question that is appropriate both at the level of engagement at a personal level and in scope, the task of the researcher becomes to review the literature to become better informed about the current state of the conversation in the relevant topic at hand. The relevant literature will depend upon the context and area of study. Academic, professional, popular, and other literatures are all tentatively available for review. As a final step in preparation, one must determine how to locate participants. In this process the researcher must attempt to avoid detrimental selection biases and unethical recruitment strategies.

Moustakas' methods of collecting data

Once the researcher has located the participants and addressed all the relevant ethical approval, the data collection phase begins. Before the interviews begin, the researcher must develop an interview guide (which may in turn be highly revised). The interview guide is intended to be a reference and a help in the midst of a dynamic conversation – not simply a list of questions to be answered. Once the researcher is satisfied that their interview guide touches all relevant phenomena, the interviews can begin. When the researcher and participant meet for the interview, it is the researcher's duty to engage in a conversation around the nature of the research, purpose, potential risks, and otherwise both give the participant a sense of the research and gain their assent to participate. In the data collection phase the researcher organizes a series of "informal, interactive … open-ended comments and questions" (p. 114) which make up the

interviews. Moustakas emphasizes the importance of creating a "relaxed and trusting environment" (p. 114) and advocates for beginning the interview with a social conversation to break the tension before beginning. Once the interview begins the researcher relies on an interview guide to ground the interview. The length of the interview and the number of interviews conducted will be determined by the particular researcher's project and the relevant merits of any particular process.

Moustakas' data analysis

After data collection, the next step in Moustakas' phenomenological method is a full analysis of the data. Moustakas offers a process for analyzing the data. Working from Van Kaam's work, Moustakas' "Modified Van Kaam Method" (p. 121) outlines how the research ought to move from the transcripts to a textual-structural description of the participant's experience.

Listing and preliminary grouping

The modified Van Kaam Method begins with a horizonalization (p. 120) of the articulated experience. In this step, the researcher must be "receptive to every statement of the [participant's] experience, granting each comment equal value" (p. 122). It is imperative that the researcher give equal value to each statement of the participant lest the researcher begin to privilege particular experiences. Equal value on each statement becomes even more critical when a researcher is attempting to illustrate or prove a particular phenomenon. In a case such as this, it can become tempting to read a canon within the canon. This step is successfully completed when the researcher has delineated each of the expressions of meaning relevant to the phenomenon being explored for each participant.

Reduction and elimination

Once the researcher has read the entire transcript and listed and grouped all the expressions of meaning relevant to the phenomenon being explored, reduction and elimination is next. Each expression of meaning is then tested against two questions:

a) Does it contain a moment of the experience that is necessary and sufficiently constituent for understanding it?
b) Is it possible to abstract and label it? If so, it is a horizon of the experience. Expressions not meeting the above requirements are eliminated. Overlapping, repetitive, and vague expressions are also eliminated or presented in more exact descriptive terms. (p. 121)

The result of this step is what Hycner (1985) calls "units of general meaning" (p. 281) and what Moustakas calls "invariant constituents". These invariant constituents are all expressions of meaning that are relevant to the phenomenon, while also being necessary for understanding the phenomenon and not vague or repetitive in nature.

Validating the invariant constituents

To further validate that the invariant constituents arrived at are accurate, the researcher then checks the invariant constituents (expressions of meaning) against the entire interview, checking for the following, "(1) Are [the invariant constituents] expressed explicitly in the complete transcription? (2) Are they compatible if not explicitly expressed?" (p. 121). Any invariant constituents that do not match with the participant's explicit expressions of the phenomenon, or are not at least compatible, are then deleted. This step is important for contextualizing the invariant constituents in the entire interview. Any expression of meaning that is incompatible with the participants larger story must be ruled out at this stage.

Clustering and thematizing the invariant constituents

Once the researcher has marked the expressions of meaning that are relevant to the phenomenon being explored, it becomes the task of the researcher to "[c]luster the invariant constituents of the experience that are related into a thematic label. The clustered and labeled

constituents are the core themes of the experience" (p. 121). This clustering of themes brings similar expressions of phenomena together. Through this step the researcher begins to see over-arching themes that run through the entire interview. Individual expressions of meaning are brought together into larger themes of meanings that further contextualize one another.

Constructing a textual-structural description of meaning

The final step that I have taken from Moustakas' phenomenological method is the construction of a textual-structural description of the experience (p. 144). Building on the invariant constituents, this process is a move from the participant's thematically grouped expressions of experience to "a composite description of the meanings and essences of the experience, incorporating the invariant constituents and themes" (p. 121). This final process gives the researcher what was sought from the outset – an articulation of the phenomenon of interest refined to key essences and themes.

Data collection and analysis

Thus far this chapter has been highly conceptual and removed from my own research process. In what follows, I outline my data collection and analysis process. This process is in line with the larger phenomenological epistemological project generally, and particularly follows the guidelines set out by Moustakas as detailed above. The section below outlines in detail how I worked towards these concrete and detailed descriptions.

Ethics

Once I had the assent of my supervisor on my thesis direction, I began my research by submitting an ethics proposal to Office of the Vice-President (Research) at the University of Alberta. Through the Research Ethics & Management Online (REMO) system I submitted an ethics proposal to work with human participants. In my proposal I outlined a phenomenological

study of emerging adults' experiences of video games in their childhood domestic space and committed to conduct my research in a manner that would be congruent with the principles of ethical research at the University of Alberta. After a revision process, my study was given ethics approval.

Recruitment

In order to find research participants, I solicited volunteers at University of Alberta and The King's University College, eventually interviewing 10 emerging adults – five women and five men. I posted a call for participants (Appendix A) around The University of Alberta and The King's University College which invited interested participants to contact me. I made the decision to pursue this recruitment design in part due to convenience, and in part because I wanted my participants to be interested in the topic of video games. Over the following three weeks I was contacted by ten emerging adults who were interested in participating in the study. I worked with each of the participants to find a mutually convenient time and place to conduct the interview. No participants who contacted me withdrew from the study.

The structure of the interviews

All interviews were held in one of two locations – a small conference room at The King's University College or my office space at the University of Alberta's Faculty of Extension. Upon arrival at the interview the participants were given an informed consent form (Appendix B), which outlined their role and rights, and a short questionnaire. The questionnaire addressed a few basic demographic questions and asked for a method of contact in case I needed to request clarification or a follow-up interview. I explained the form to the participant step-by-step and emphasized that they were free to refuse answering any question or to stop the interview at any time. I then offered to answer any questions the research participant had before beginning. Once

the participant indicated that they understood their role and rights, asked any questions they wanted, filled out the questionnaire, and signed the informed consent form, I started the recorder, and the interview began. All interviews were audio recorded using a microcassette recorder and backed up with an iPhone audio recording.

The interview

The interview began with an invitation, "please tell me about your experiences of video games as a child." The participant was encouraged to direct the conversation as they preferred into topics and experiences that they found relevant to the question. When the conversation strayed too far from the topic at hand, I would ask the participant the next question on my list (provided they had not already addressed that question) or any question on the list relevant to our current conversation. This semi-structured interview format allowed me and the participant a valuable mix of freedom and structure. In each round my questions were built around the four processes that comprise domestication – appropriation, incorporation, objectification, and conversion. Some sample questions from the interview guide can be seen below:

> -please tell me about your experiences of video games as a child.
> -how did you receive your video game console? What were you allowed to play on it?
> -where was the video game console placed in the home?
> -were there restrictions on how much you could play?
> -was there anyone in the home that would consider themselves a serious 'gamer'? What did you think of the video game console?

These questions – along with the other questions that came up in the course of the interview were intended to produce an interview between 60 – 80 minutes. Given that the "tendency of inexperienced interviewers is to go too long because they fear they may not have sufficient data" (Giorgi, 2009, p. 124), I worked to be diligently aware of the length of the interviews. In part, it

was to my advantage to restrict the time-length of the interviews given that I would have to later transcribe them, a very time-consuming process.

Transcribing: Process and style

Once I had completed the ten interviews, I began transcribing. Fortunately, each microcassette recording recorded successfully and I did not need to employ the iPhone recordings. In the weeks following the interviews, I transcribed six interviews and hired a contract transcriber to transcribe the other four interviews. The contract transcriber signed a confidentiality agreement. The result of this process was ten transcripts ranging from 15 to 26 pages in length. The interviews were coded with "I:" each time I (the interviewer) spoke, and "P:" each time the participant spoke. Both I and the contract transcriber endeavored to transcribe the interviews verbatim. Short pauses were represented by ellipses (…) and long pauses by the word pause in brackets (Pause). If for any reason the dialogue could not be heard or understood, this was represented by {incomprehensible}. Laughter was represented by the word laugh, laughter, or laughs in brackets (laughs). When participants quoted others in their speech (e.g., while telling a story), this was represented by single quote quotation marks, (i.e., so she says, 'you bet!').

Reading the transcripts, listening to the recordings, choosing invariant constituents

With the transcripts now in hand I began the data analysis process. To begin, I listened to each of the interviews and then read each of the interviews. These listenings/readings were intended to help better acquaint myself with my research before I began the listing and preliminary grouping step. After acquainting myself with the stories of the participants, I read the transcripts for themes. I detailed on a printed copy of the transcript each unit of meaning relevant to emerging adults' experiences of domestication of technology. I then read the selected

themes over again to be certain that the themes were in fact necessary for understanding domestication of video games in the childhood experience of emerging adults. Any themes that were repetitive or not entirely necessary were removed from my list.

From invariant constituents to six themes

Once I had my list of invariant constituents I took on yet another reading of the full transcripts. In this reading I compared the entire interview to be sure that the invariant constituents that I had identified resonated with the entirety of the interview. Through this process I further eliminated articulations of the phenomenon that were inconsistent with the recurring theme or tone of the interview. Once this process was done I began grouping recurring themes of experience that came up within individual interviews. I grouped the experiences around the four domestication processes – appropriation, objectification, incorporation, and conversion. I also identified a number of themes not associated with any of the four processes across the ten interviews. However, I have only presented two non-domestication themes in my Results chapter – two themes that were sufficiently broadly represented across the entire sample. The final step, as evidenced in the Results, was a textural-structural description of meaning. These descriptions answer the question of how the participating emerging adults experienced appropriation, objectification, incorporation, and conversion, as well as the surprising themes of approval for parents' domestication style and a growing ambivalence around new technology (likely as a result of emerging adults become technological immigrants).

Concluding: Research scope

As expressed above, this research project aims to understand phenomenologically the domestication of video games by interviewing emerging adults about their experiences with console-based video games as children and teens at home by gleaning from Moustakas'

phenomenological method. The questions attempt to understand domestication by interrogating the four widely recognized processes of domestication in a Moral Economy: appropriation, incorporation, objectification, and conversion. Appropriation refers to decisions about whether and why to purchase any given ICT; objectification refers to questions of where to locate ICTs spatially; incorporation refers to how families decide to use ICTs in any given routine; and finally conversion refers to the process of incorporation of ICTs into one's own identity (Silverstone, Hirsch, & Morley, 1992). The final results of this research is the delineation of a set of themes that will provide future researchers with guideposts for exploring questions of domestication generally, which adds to the body of literature on the domestication of video games, and which offers a template for exploring the domestication process as worked out between first generation technological native children and technological immigrant parents – a topic fraught with ambivalence and tensions. This final purpose is particularly unique as the literature currently offers few phenomenological articulations of how technological natives and immigrants negotiate meanings, values, and symbols in domestic spaces. This research is a unique opportunity to explore how technological native children and technological immigrant parents interact with and negotiate ICTs.

Restrictions

One of the necessary sacrifices of any research project is that the research must restrict questions that are tangential, no matter how interesting. In this study these restrictions have been particularly difficult as there are a great many fascinating tangents available. For example, it would be interesting to explore how the domestication process of video games compares and contrasts with the domestication of other emerging ICTs; how the religious and spiritual commitments and conflicts of a household finds expression in domestication of video game

consoles (and other ICTs); what role gender plays in the negotiations around spatial organization of video game consoles, etc. This choice may at times leave the reader wanting more. While I recognize this difficulty, I have chosen to stay focused on my core questions. If there is any one project that I would hope to return to at another juncture, it would be to duplicate this interview process with the participants' parents in order to compare and contrast the potentially divergent experiences and meanings of video games. I have elected to pursue this research programme in the interests of scope, but perhaps future research will allow more of the above questions to be considered.

Chapter 4: Results

Introduction

After ten fascinating interviews with ten emerging adults it is a daunting task to present the results in a way that is faithful to the full richness and diversity of experiences that I encountered. By following closely to the methodology I have offered an articulation of findings from the interviews. To begin, I offer paragraph portraits intended to introduce the reader to each of the ten participants. I then move on to articulating the themes that arose in the interviews regarding domestication. In order to make this articulation thorough, I break these themes into the four constituent processes of domestication (appropriation, objectification, incorporation, conversion).

Portraits of Participants

All qualitative research relies on the willingness of participants to share honestly and deeply from their experiences, memories, and lives. I am grateful for the group of participants who shared their private experiences of video games, their childhood, and their lives. Below I introduce all ten participants in brief. For the purposes of anonymity I have used pseudonyms for all participants.

Catherine

Catherine, originally from Edmonton, is a 21-year-old single university student studying Psychology and Music. She is well acquainted with video games as she recalled playing Xbox, Wii, Xbox 360, PS2, Gameboy, Gameboy Advance, Nintendo DS, and a number of other computer games. Catherine was well acquainted with technology as it was a salient feature of her family culture and the Moral Economy of the household, "We love technology … (laughs)" (p. 13). Catherine is the middle child between two sisters who are close (2-3 years) in age.

Sandra

Sandra spent most of her life in Edmonton after moving from Ontario as a young girl. She is 21 and recently engaged. In university she studies Biology and has a number of co-curricular involvements. The youngest child, Sandra has three older brothers. Her two oldest brothers were approaching independence by the time she was beginning to come of age and she has few memories of them. Her brother that is closest in age (3 year difference) was a close childhood friend and a huge Nintendo fan. Sandra played a number of video game cosoles (always Nintendo brand) and eventually developed her own affinity for gaming as a child and teen.

Vince

Vince grew up in a rural area in the Hamilton, Ontario region. The youngest of four siblings, Vince grew up on a chicken farm – though his Dad also "worked in sales and service for computers" (p. 4). Vince, now 21, has two older sisters and an older brother with a two year gap between all the siblings. Vince is in a dating relationship and is pursuing his computer science degree. Vince owned the short-lived Sega Dreamcast console as well as an Xbox in his youth.

Mike

The son of teachers in rural Northern Alberta (near Grande Prairie) Mike is the youngest child and only boy in a family with four children. A lifelong gamer who is pursuing a Psychology degree as a prerequisite to an Education program Mike has been heavily involved in sports in both an athlete and coach role. He is 23 years old and recently began a new dating relationship – he lives alone in an apartment near his university.

Stephanie

Stephanie is a 21 year old commerce student from Northern B.C. The middle child – one sister older by 3 years and one brother younger by 3 years – Stephanie is in a dating relationship. Stephanie did not grow up with video game consoles and her parents very attuned to how much time the kids spent with technology,

> we were allowed to watch TV after school for an hour. Then we weren't allowed to watch TV again until at least 8PM. And we had to prove that all our homework was done. And on the weekends we had to go play outside. Couldn't sit inside on the TV. Sundays we were expected to play games with my family … or go outside. So, like, max an hour, hour and a half on any-thing … Computers, TV, anything like that. (p. 2-3)

Bryan

Bryan (23 years old) is a political science student originally from Northern B.C. Bryan is the oldest of 4 siblings – a sister and twin brothers – and grew up without a video game console in the home. Though Bryan and his brothers occasionally played games on the computer console, his childhood experience was largely informed by a passionate love of the outdoors. "Yeah, but I don't know why. Maybe just how I grew up … [other people] had video games and all the other toys and we put our money toward outdoor stuff for example" (p. 14).

Doug

Doug is a 21 year old computer science student originally from Edmonton. Doug has one sister who is three years older. In Doug's house there were no video game consoles, though there were numerous PCs. The personal computer was the dominant technology in the domestic space: "basically my whole life yeah. Uh, even when I was a little kid, I would quote unquote 'play games on the computer' – by which I mean I would sit there and make my father play for me."

Nadine

The daughter of an accountant and a welder, Nadine grew up as the youngest of two sisters. Nadine's sister is a full seven years older and so some features of her experience of growing up were akin to being an only child. Nadine grew up in the Lower Mainland of British Columbia and owned a Super Nintendo. At the time of the interview Nadine was 18 years old.

Debbie

The youngest of two, Debbie (age 23) is a recent education graduate looking for her first teaching job. Debbie's parents work as a computer programmer (Mom) and for the government of Alberta (Dad). Debbie's older brother was instrumental in introducing her to video games. Debbie's family had a Wii and an Xbox 360 in her childhood and teen years.

Phil

Phil is the youngest of five siblings – he has two older brothers and two older sisters with a 2-3 year gap between each of them. At the time of the interview Phil, 21 years of age, was working on his computer science degree with the hope of being a game designer. He also works on a contract basis for a game design firm in Edmonton. Phil had relatively limited experiences with consoles due to his family's preference for PCs – a result of Phil's father's work as an IT profession.

Domestication

The interviews were centrally concerned with attaining a phenomenological articulation of the domestication of video game consoles in the home. As such, the majority of the questions were related to the four processes of domestication (appropriation, objectification, incorporation, and conversion). A variety of themes arose as these ten emerging adults articulated their memories of domestication, experiences of contemporary domestication, and projection of future domestication. In this section I explore these themes.

Appropriation

In order to own any ICT (or any good) there must be some method of procurement. In the case of ICTs, procurement is not necessarily a straightforward process. ICTs bring with them claims on time and space of the family in the domestic space together with implicit worldview assumptions (e.g., political, social, economic, religious, etc.). The normalization of the procurement – or in domestication language 'appropriation' – is a symptom of an uncritical buy-in to the dominant Western notion of consumption. Appropriation, whether by purchase, gift, trade, theft, or other means, is itself a highly ritualized social process. That is to say, it lends assent, or provides a challenge, to a particular system of exchange (Parry & Bloch, 1989).

Appropriation before birth: Nadine and Sandra

In Sandra and Nadine's experiences, consoles were in the home before they were born. Sandra and Nadine are both youngest children, with considerably older siblings. Their experience of video game consoles was coloured by the domestication process their parents had undergone with their older siblings.

In Nadine's home, the video game console had been appropriated after it was gifted to them by a cousin who had bought a newer model of console:

> he'd always be buying like the newest one and so like, as soon as he got tired of something that was a little bit older he'd just like throw it away. I think at point we had like I don't know what it's called {incomprehensible}. But yeah Sega Genesis um like (laughs) {incomprehensible} I don't even know how to pronounce it at the time. But yeah I remember having that. (p. 3-4)

Though Nadine's Mom found video games "extremely stupid" (p. 5), she did not put many restrictions on the content that Nadine appropriated for the video game consoles. This was likely in large part to Nadine's relative indifference to video games in favor of other pursuits (e.g., drawing, painting, watching TV, writing).

For Sandra, the video game consoles (all Nintendo consoles) were appropriated by her parents as gifts for the kids. As Sandra was the only girl in a family of four children, Sandra saw these gifts as being influenced by the boys in the family. In one case her brother, who is three years her elder, petitioned his parents for a particular game after learning about it at school: "[He petitioned], I need to get this game, this is the best game, everyone is playing this game" (p. 2). Sandra perceived, however, that it was not merely caving in to the incessant nagging of children that lead to the family to appropriate video games. More deeply the choice to appropriate video game consoles in the home was largely due to her mother's desire to give her children whatever it would take to feel they were having a normal childhood: "My Mom definitely bought into that, she never wanted us to feel like we being ostracized because we didn't have something because she couldn't give it to us sort of thing, so she always made sure she could" (p. 17). It is important to contextualize Sandra's experience by noting that Sandra's parents divorced, leaving her mother the duties of raising the children alone. The appropriation decisions were influenced in part by pressures and anxieties that came with being a single parent.

Appropriation during childhood: Debbie, Vince, Mike, and Catherine

For Debbie, Vince, Mike, and Catherine, the video game console was appropriated into the home in their childhood or teen years. In every case the video game console was purchased by or for a male member of the household, though never with restrictions against female members of the home using the console. The stories of appropriation into the domestic space did, however, reflect the gender bias implicit in video game consoles and video game console narratives (Cassell & Jenkins, 2000; Kennedy, 2002; Nakamura & Wirman, 2005).

The video game console entered Debbie's home when her brother (in his mid-teens) bought an Xbox. He had saved up enough to buy it and then purchased it without consulting his

parents. This decision created a minor stir, mostly due to the money that he had spent, but his parents did not have any major objections as video games had already been in some ways introduced to the home through computers. Debbie's parents would later buy a Wii, largely for the Wii Fit program. Debbie's parents largely followed the Entertainment Software Rating Board (ESRB) ratings.

Video game consoles first entered Vince's home when his brother bought a Sega Dreamcast from a friend. The console was relatively cheap, maybe in large part because the Dreamcast was Sega's last console and had a very limited library of games. While Vince's parents were open to his brother purchasing the Dreamcast, they had to give their assent to any games before they could be purchased or played. This pattern was a holdover from the appropriation of video games in the context of the computer. Vince's parents did not approve of games with blood on the screen and would not allow these games in the home. For this reason, the kids tended to play more strategy games. However, in one noteworthy exception to this rule of appropriation, Vince's brother "kinda [took] the bull by the horns and installed [HalfLife] and [his] parents just … didn't do anything about it" (p. 10). For the most part, however, the process of appropriating games for the computer and console was an informal, yet ritualized process:

> Usually we'd go to the mall and go the video game store and we would scope out the games we were interested in and then ask our parents and then my Dad would look at it and be like, "I don't like it because of this reason" or "Yeah sure, fine." And we'd be like, "Okay." Pretty informal I guess, but there was guidelines that he adhered to for sure. (p. 10)

Mike received an N64 at age 12 and a PlayStation 2 at age 15 both as Christmas gifts from his parents. Mike's parents were convinced of the value of purchasing the console after Mike was ill and needed to stay at home for an extended period of time:

> I think it was after I had meningitis and I was home sick for a while, I had borrowed a friend's Sega Genesis and I think they saw how good it was to kinda have around.

> Because, when they were teaching they can't stay home (pause). They only have so many sick days, and it's not the greatest paying job so if they, if they have to leave, and I'm of the age that I could take care of myself, but like, what am I going to do all day? (p. 5)

In Mike's case the video game console may have also functioned as a source of entertainment in the home considering that he was the youngest and the only boy living on an acreage in rural, northern Alberta. While Mike was highly involved in sports, the console provided a reprieve from boredom in the context of the home. On an ongoing basis, Mike's parents were "very strict" (p. 5) about the ESRB rating system. This meant that for Mike to appropriate games Mike needed to be sure that the games were age-appropriate.

Catherine's account of appropriation began in 2001 with the purchase of the Xbox. The Xbox was the first console purchased for the family, and it was followed by a Wii, PlayStation 2, and Xbox 360. Catherine's parents purchased the first console largely because it was a game system that her father wanted to play but also because it was marketed as a girl-friendly version of the console: "I think we got it because someone told us that it was like a girl edition of an Xbox or something … and my Dad thought it was cool" (p. 3). Catherine's parents largely did not object to the games that she and her sisters appropriated for the console: "I guess that's because they knew that we were picking okay games. We weren't playing shooters … or anything that had too much violence or anything like that. We picked good games" (p. 14). Mostly, the girls tended to purchase games that were cooperative and involving in nature (i.e., singing games, dancing games, etc.).

Appropriation in late teens: Stephanie and Bryan

Stephanie and Bryan – both residents of Northern BC – were surprised by their parents' decisions to purchase a video game console. They both reported that the appropriation was something of a reversal of stance for their parents. Bryan went so far as to say: "I was actually

really surprised by it actually … I remember being like, 'Really?!' (laughs). I was kind of proud we didn't have a video game console. I didn't really want one" (p. 3). For both Bryan and Stephanie this purchase was late in their teen years – grade 12 for Stephanie and second year of university for Bryan. Though this purchase was after Bryan had left high-school, he felt that it was relevant to his teen years because he continues to spend his summers at home.

Stephanie and her two siblings had done nothing to lobby for the addition of a video game console and were somewhat surprised when their Mom purchased the Wii in Stephanie's grade 12 year. The Wii was the first video game console appropriated in this "outdoorsy family" (p. 1). For Stephanie's mother the decision was reflective of the opportunities she saw in the console for family togetherness and physical fitness:

> My Mom kinda wanted it. She wanted it for like the sports, like you can do the Wii sports and all those kinda things. She thought it'd be a good way for us to actually do something together in the winter. Back home has long winters too. And, my brother was kind of game for it, and she wasn't sure how much he wanted for like, gaming. He's never really done much before, so she wasn't sure, that might have been a good way, she thought it was a good way to start, to introduce it to the family … to play it. (p. 1)

Ultimately, Stephanie's mom's purpose for appropriation would be enacted as the family, including the grandparents, would play together and she would go on to use it for a variety of fitness games. The rules around what games and content could be appropriated for the Wii was informal, in part because of the children's somewhat measured, even tepid, response to the console. However, there was a clear sense of what would and would not be allowed. "if we wanted a game we would have to buy it ourselves … if Mom didn't like it she would've said, 'there is no way this is staying in my house.' And we knew what she would and wouldn't like" (p. 7). In Stephanie's experience there was a clear sense of what games and content would

challenge the symbolic and moral integrity of the home without any formal guidelines – the children knew not to challenge that integrity.

Bryan had already left home for university when the Xbox entered the home. It came as a Christmas gift from his parents to "the boys in the family (laughs). I think to all of us, all four kids, but yeah" (p. 1). Bryan was a little bewildered by his parents reversal of stance, "Uhh (pause) yeah, I didn't really see (pause) yeah, my parents were pretty adamant, like it wasn't something they were going to do" (p. 3). Bryan speculated that the reversal in this decision may have been financial or may have been because his younger brother was spending time playing video games at a friend's house, however he ultimately concluded that it was a surprise for him. Bryan was unsure of the rules and restrictions about the console as he was very uninterested in having it in the first place and only spent his summers at home.

Decision not to appropriate video game consoles into the home: Phil and Doug

The final group of appropriation styles was Phil and Doug. Phil and Doug are both computer science majors with a deep interest in game design. Their life trajectory may well be a result of the prevalent technologies in their domestic space – computers. Both Phil and Doug did not own a video game console for any meaningful length of time. Rather they were encouraged to, and preferred to, use the computer for gaming. In Phil's words:

> Umm, [video game consoles] weren't necessary. Umm, and … they weren't cheap. We were a big family and we needed to be economical and for us if we had a PC we would have an office computer, an entertainment center, something to learn from, an internet port, like, a PC is all these things but a console is just for non-constructive activity so our parent's logic, which transferred to us, was, 'it's not necessary'. You can find entertainment on the PC just fine. (p. 4)

Phil, as the youngest of five children, vaguely recalled having a NES in his early years but remarked that "I think my parents sold it at a garage sale for an unknown reason, I forget. I was probably five years old" (p. 1). Consoles were a marginal part of Phil's experience – though

computer games were an important and enduring feature of Phil's family's Moral Economy. While Phil's parents did not have an aversion to consoles, they simply evaluated that computers were a better use of resources and a more useful tool to have in the home. When it came to games on the computer, however, the ESRB ratings system guided content, "Yeah, that was the guiding factor. If it had an E on it, we could play it. If it had a T on it … 'oohhh, I don't know, let's talk about it' (pause). If it was an M – no way" (p. 5).

Doug, like Phil, had a marginal experience of video game consoles in the home. There never were any consoles in the home for Doug during his childhood. Nevertheless, computer games were a salient feature of his childhood experience: "Um … [I played games on the PC] basically my whole life yeah. Uh, even when I was a little kid, I would quote unquote play games on the computer – by which I mean I would sit there and make my father play for me" (p. 1). While Doug loved to game, for him, "consoles never really made sense … because they only did one thing" (p. 2). Given Phil's father's IT related profession the computer was given a privileged place and the console was deemed unnecessary. Surprisingly, Doug's parents gave him a video game console for him as a grade 12 graduation gift in an effort to offer a way of gaming that would be more social:

> P: Um, but part of the reason they got me it was because as a gamer I was gaming alone or with my friends on the internet, and what they wanted to try and do was pull that into a more family context where we were all together socially gaming.
> I: Okay.
> P: Which never happened, but that is one of the stated reasons that I was given. (p. 12)

Ultimately, however, Doug did not take to the Wii and it has since become "the least used thing I have" (p. 11).

Objectification

Once an ICT has been appropriated in the home, it is subsequently objectified. Objectification refers to both where the ICT is located in the home and the way(s) in which it is symbolically displayed. The choice of location and presentation of an ICT "provide[s] an objectification of the values, the aesthetic and the cognitive universe of those who feel comfortable or identify with them" (Haddon, 1992, p. 20). It is important to remember that in the case of video game consoles, there are constraining factors to objectification built into the product – the most obvious of which is that the video game console must be attached to a TV to be played.

To some degree, the objectification process was largely unsurprising – video game consoles need to be hooked up to TV's, and TV's have a number of preferred locations within a typical Canadian home. However, in these interviews I found that emerging adults recalled one of three types of objectification: dedicated video game space, video game/TV space, and no consoles in the home. The objectification choice was largely tied to the amount of playtime that the family allocated for the consoles. Further, objectification choice often reinforced upstairs/downstairs, bedroom/public space dichotomies in the home where parents and children would either have the space and privacy to pursue their own media interests separately and independently or served (often intentionally) to destroy this dichotomy.

Dedicated video game space: Mike, Catherine, and Sandra

For Mike, Catherine, and Sandra there was a dedicated video game space in their childhood that featured a television intended solely for playing video games. These spaces were all in the basement, away from the main hosting and public spaces of the living room and kitchen. While these spaces were not off-limits to parents, they were spaces where parents were

marginalized as outsiders. In these video game spaces the console, together with the youthful leisure that consoles are generally paired with, ruled supreme.

When asked "when the video game console got to the home where was it placed?" (p. 6) Mike recalled, "Downstairs, away from the family" (p. 6). In this space 'away from the family' there was a "computer against the wall, with the piano to the side, then beside that there was the bookshelf with all of dad's World War II books … the TV, the console … a chair" (p. 7). Mike's video game space was filled with a variety of destination items – the piano, the computer, even books intended more for collecting than reading. Mike recalled frequently using this space in private for campaign style, one-player games. Perhaps Mike being the only person in the home who played video games with any great regularity meant that this space needed to be created as a destination for him to go to play video games. Had the video game console been in the upstairs living room, conflict between Mike and the rest of the family – interested in using that space for watching television – would have inevitably arose. It seems that this arrangement had a great effect on Mike given his attitude about how to display the video game in the home as a parent:

> I think consoles in an away spot is good. Uh, just because it's, like out of sight out of mind kind of day and if it's like, 'okay I'm going to play games now' then, that's where they go play and when it's family time you're with the family, the consoles not even a distraction. (p. 21)

In Catherine's home the video game space is more of an entertainment centre for the three daughters. In her interview gregarious Catherine gushed about the downstairs space:

> I: and where is that TV sort of relative to everyone else in the house?
> P: It's in the basement.
> I: Yep.

> P: And it's … you go down the stairs and to the right and actually it's the main feature of the basement because the wall is all decorated and then there's like 'aahhhhh' – the TV in the middle. So it's like (pause) the centre piece.
> I: Okay.
> P: Yep. It's a big deal. (p. 7)

This space was important as the family did a great deal of hosting – particularly hosting events that would bring a number of children/teens into the home:

> Yeah, it's definitely … where we turn on loud music and have dance parties … We often have youth groups come over … they don't want to go to any other place in the house … They just all kind of know – the basement's the fun place. (p. 8)

For the family, this space was not a place for solo gaming (as in Mike's case) but rather a sort of recreational space intended for gaming, etc. Interestingly, as video game consoles aged and were replaced, they would be moved to the family cabin. The cabin seemed to be understood as a space that symbolically suspends time and so the older consoles have a nostalgic purpose there:

> Actually the cabin is kind of a place where you can always be a kid, so we take a lot of our toys out there. So that's why the Xbox got booted out there as opposed to like the Wii or the PS2. Cause those things are kind of like more of our teen-ish aged kinda toys. So we just kinda send everything that was from our childhood out there. (p. 9)

Sandra, like Mike, recalled the video game space as being intentionally apart from the upstairs living room space, defined by the television. Though Sandra never gave a reason for this, it seems likely, given that neither of her parents played at all, that this was to create distinction between the kids video game space and the parents' media space. Further, given that the kids had no restrictions on the amount of time they could play, it seems that the video game may have functioned in part as a babysitter for Sandra's overworked single mom.

Shared video game/TV space: Debbie, Bryan, Stephanie, Vince, and Nadine

For the majority of the participants, the video game console was located in the television space. This dual purposing of the space comes out of a mix of concerns. Some parents were

unable or unwilling to purchase a second television, some felt that the location of the video game console with the television made it easy to observe and manage as a parent, still others felt that the video game console would not be played too frequently and saw no value in having two televisions to do half-time jobs. In every case, the play patterns of the children were considerably more constrained (by disinterest or by parents' rule) in these participant's homes.

For Debbie the video game console was a late addition to the family TV space downstairs. This space was the only TV space in the home and so when her brother purchased the Xbox that was where it was stationed. This space was thought of as her father's space, and so the video game console had to be kept tidy in the area:

> Primarily because that's my dad's space and so, um … it was like if we get that you need TV space for it, you can have that, but it can't take up space. The controllers need to be kept out of sight and away and this is the TV. (p. 4-5)

Debbie further noted that the location of the video game console was noteworthy, perhaps intentional because, "[it was] nearest to my bedroom and furthest away from my brother's bed room (laughs) but umm … it's most often used by, by my brother" (p. 4). Primarily it seems that this choice to have the video game console share space with the family TV was likely not on principle, but rather because Debbie's parents were simply uninterested in dedicating more of the home to a second television. However, in recent years (after her brother has moved out) the family has created a second TV space for the video game console.

In Bryan's family the video game console was located in the living room, where the only television in the home was located. The home was open concept with the living room, "open to the dining area and the kitchen" (p. 4). This allowed a great deal of transparency with regards to the media being consumed in the living room. Given Bryan's twin brothers' propensity to "get angry easily" (p. 3), this location is perhaps in part to diffuse arguments that could otherwise get

started and generally keep abreast of the video game content being appropriated on the video game consoles. Further, considering Bryan's family's culture of outdoor activities, it may well be that his parents simply saw no value in adding a second television to the house.

Nadine played relatively little on video game consoles in her home growing up and this factor may have been more important than any other in making the video game/TV space a shared one. In Nadine's home the video game console was located in the living room and, given how little Nadine played video games; there rarely would have been conflicts over television use. In fact, in Nadine's teen years her parents decided to get rid of the television from the home entirely. This decision was not intended to put an end to video games in the home (though it did do that), but rather to put an end to watching television. Though Nadine was initially upset with her parent's decision, she did come to terms:

> I can remember that I wasn't actually that upset I mean I was in like school and stuff so like by the time you got home … I didn't really, at first I was super upset I was super mad um … but within like the first I think month or so I was like oh, this is how it is and I didn't really miss it that much. (p. 9)

In Mark's parent's home the TV room functioned as the central media centre for the entire home. The addition of the video game console functioned as little more than one other type of media to add to the central media space:

> We had a TV room with a fireplace … the computer was there, and … we only had one TV when we had the Dreamcast, so, that was connected to the TV, which, the TV room was connected to the kitchen, um, and then, yeah connected to the kitchen really was basically the only thing, um, so I mean we shared it, gaming console with the TV, so my parents wanted to watch TV, then we unhooked the game console type thing, right? (p. 4)

The video game console was exclusively used by the children in Vince's household – particularly the two brothers. For this reason the use of the video game console had to compete with the rest of the family using the television for other purposes. This tension was likely

mediated by restrictions on the amount the kids could play and other competing time demands (chores, soccer, etc.). However, once the second console entered the home (Xbox), the family then purchased a second TV and put them in the entertainment room: "We had like a pool table in there, uh, and an air-board, and stuff like that, so it was kinda the entertainment section" (p. 4). The video game console essentially came to be viewed as another toy for the kids entertainment and was correspondingly objectified as such.

In Stephanie's family the Wii was located in the recreation room. The recreation room "[had] the old couch that, if you flop on it … it doesn't matter if it breaks. And our TV. So it was like the play room sorta area" (p. 4). The recreation room was filled with "an air-hockey table, and our computer … a couch (pause) and a TV … We used to have a ping-pong table" (p. 4). There seem to be two main reasons for the choice to locate the console in the TV room – the location of the television and the purpose of the living room. Straightforwardly, the console simply went where the television was already located. However, the purpose for the recreation room and the living room were quite different in Stephanie's experience. The living room was intended for hosting friends and putting a "best foot forward" (p. 8). The recreation room was mostly to have a place to play where the children could be loud and active. In contrast with the games and old furniture, the living room had, "couches (pause) Piano. (pause) Stereo. (pause). That's about it" (p. 4). In the living room space a particular type of activity (conversation, reading, listening to music, playing piano) were built into the architecture. The video game console, with its features of noise, fun, and action was relegated to the recreation area.

No console in the home: Phil and Doug

Phil and Doug did not experience a video game console in the home and so there was no objectification of video game consoles in their experience. However, given the place the

computer gaming held in their lives we can instead turn our attention to the objectification of computer video games in these cases.

For Phil, the computer was located primarily in what the family called the 'bonus room' – a room above the garage that had formerly been unusable. What was particularly interesting about this room was that it also occasionally functioned as a bedroom for Phil and his brothers. This was the only case of any participant having a video game console in their room, with the exception of handheld video games. While Phil did not explicitly say one way or another, it may have been that the family decision to change that space from a bedroom/computer room was due to the difficulties managing children's playtime. I was surprised that more participants had not experienced video game consoles in their rooms. It seems, however, that that was a route of domestication that few parents of these emerging adults were willing to endorse.

In Doug's home, the computer was located in his Father's office. The computer was "ostensibly for work usage" (p. 3) though it seems the computer was commonly used for various other purposes – homework, research, gaming. For Doug, as a younger child, gaming was the primary purpose for computers:

> P: I know as a kid I really considered it to be the game machine to the extent that when we started getting, uh, computer based encyclopaedias which was the {incomprehensible} encyclopedia, my little kid brain said, 'Oh, this is the most fun game ever you get to learn about stuff!' And at the time it was I think the nineteen ninety-six edition was narrated by Patrick Stewart so; 'Captain Picard is telling me things!' That was the big impetus behind using the computer. It was still a game machine.
> I: Okay. … So as a kid you'd say your experience on the computer is like: 'that thing is for games.'
> P: For games or entertainment, that sort of stuff. I didn't really process that it did anything beyond that. (p. 3-4)

The fact that the computer was in his father's space meant that Doug and his sister had to abide carefully by the rules set out for them. While this may have been still true in a more public space

in the home (e.g., living room, family computer room) it was further amplified by the private nature of the space. As explored in the below section, the placement of the computer in the home had particular ramifications on the way the computer was incorporated into Doug's time structures.

Incorporation

Once an ICT has been appropriated into the home and objectified in a space that supports the orientation of those who make the Moral Economy of the home their own, the incorporation process begins. Incorporation is the process by which certain activities, routines, and rhythms are supported and supplanted. The incorporation process is important for a number of reasons. For one, incorporation becomes a potential site of struggle as the competing wants and needs for resources (e.g., entertainment resources, information resources, connectivity resources) offers occasion for power negotiations between family members. Further, the incorporation process lends insight to the guiding values within any given home. The restrictions and endorsements of various ICTs – to the detriment or advancement of other pursuits – are themselves the outworking of these guiding values.

In my interviews with the ten participants I heard three distinct incorporation themes – no limits, informal limits, and formal limits. In the first set parents placed no limits on the amount that their children could game, in the second set parents placed informal limits on the amount that their children could game, and in the last set parents placed formal limits on the amount that their children could game. While there was likely a degree of plasticity to these rules over the entirety of the participant's childhood and teen years, these themes represent the incorporation process as experienced by the participants.

No limits: Catherine, Sandra, Mike, Nadine, and Debbie

The group of participants whose parents placed no limits on their gaming is not necessarily a cohesive group. Some participants reported no more than a casual amount of gaming, where others reported heavy gaming. It may have been that some of the participants who reported no limits may have seen their parents institute formal or informal limits on gaming had they been more dedicated gamers. However, most participants who recalled this incorporation method tended not to report any problems with video games interrupting other major time rhythms in the home (i.e., sports practice, homework, family dinners, etc.). In any case, these five participants all reported the absence of limits on gaming in their home.

Catherine is an early adopter of new technology who places a degree of her identity on being a web developer. It is likely that Catherine's positive predisposition towards technology is a reflection of her family's enthusiasm toward technology. For example, as an outworking of this technological enthusiasm Catherine had a computer in her room by the time she was in grade 8. Given this enthusiasm for technology in the home it is unsurprising that there were very few limits placed on the amount of time that Catherine and her sisters were permitted to play video games.

> I: Okay. Uh, were there restrictions on how much you could play or used to play?
> P: (laughs) Ummm … I know that there were … probably there were … moments where, you know, my Mom or somebody would say, 'Okay, go outside' – like you know?
> I: Yeah.
> P: Especially on a nice Saturday. Um … I wouldn't really say that I played it to the extent where my school marks ever dropped. I wouldn't play it extensively on weeknights. Um … We were good about sharing, so we didn't need to stop playing because we were being bad, you know?
> I: Yeah.
> P: They're co-op games. They're designed to avoid those kinds of problems. So, yeah, we were very good. And the parents were pretty good about it too. Like they didn't really say anything like you know 'Stop playing those games.' (p. 14)

For Catherine and her sisters, gaming alone or not sharing the gaming system and space may have been problematic and meant a re-negotiation of the rules around gaming. However, the girls tended to game cooperatively and thus mitigated this potential point of contention. Catherine's language suggests that she cannot recall any instances where her parents limited her time "probably there were … moments where, you know, my Mom or somebody would say, 'Okay, go outside'." Later she says, "they didn't really say anything like, you know, 'stop playing those games'." Given the preponderant place of technology in her life (in her room, handheld video games, laptop for school, etc.), it seems that her parents simply saw no problems with incorporating video game consoles into the time rhythms of the home. This is likely because Catherine never saw her grades or extra-curricular involvements suffer.

Sandra's parents went through a divorce when she was a child. As a child and teen her parents' divorce had far-reaching implications in the way the domestic space functioned. It is no surprise then that the divorce in part coloured the incorporation process of video games, as seen below:

> I: Umm … you said there was no restrictions on how much you could play?
> P: Nope.
> I: Umm, why do you think that was?
> P: Hmmm … I think it was because my Mom was a single Mom at that point because when I was 5 my parents had separated, and I think it was a way of having us occupied and keeping her stress levels down. Because, if we are running around like, 'I'm bored, I don't know what to do' that kind of thing, it just kind of occupied us. And, uh, I don't think, I've never really, from my perspective I didn't really see it being abused in any way. There wasn't ever a time when we were on it for like twelve hours eating junk food gaining lots of weight, like none of us are obese in any way and we've all got healthy friendships too. So I don't think it got to a point where we, we were using it to escape or using it too … yeah, like … I think. Now I don't know why that is, if it's just because we ourselves were good at maintaining that because I don't remember my Mom ever saying, 'Oh, you can't play games.' (p. 9)

Sandra's mom was chiefly charged with raising the children and, with the difficulties and stresses that come with being a single mom, she decided that this was an outlet that she would not limit. In this case, as with other participants, one can only speculate how Sandra's mother would have re-negotiated the incorporation process if there had been problematic behaviours from her children. As it was, her children were growing up to be fairly normal, healthy children and so she allowed her children to play to their limits.

Mike, the youngest of four siblings, reported that there were no limits on how long he could play as long as a few basic conditions were met – that he attend family meals and that his homework was done. As a child and teen, Mike was an extremely active athlete in rural northern Alberta. Mike's sports commitments meant sometimes he would have as many as three practices in a day. This busy rhythm may have helped Mike's parents to see video games as a way to relax after the physical exertion of sports. One can only speculate, however, if the limits on video games would have been more firm had Mike not been an active athlete and successful student:

> I: Okay. Were there restrictions on how much you could play?
> P: No. Umm … parents let me play, as long as I was upstairs for dinner with the family and my school work was done.
> I: Okay. Was, was it ever in your mind or in your parent's mind, like, problematic how much you played?
> P: Umm…
> I: Or did they just sort of say, 'these are the things you need to do, besides that, you know, play when you want.' And there never was a problem so there wasn't need to be a rule or was it just, fundamentally they felt like you could manage and handle managing that?
> P: (pause). I think they didn't mind just because they were so busy marking and doing their own assignments and stuff that … what else was I going to do. And they knew that I had been out and about all day, so if I'm playing two hours of video games because that's all I had time for, then it's pretty tough to go out for a run, because I just got back from three practices.
> I: Sure
> P: And, I think the other thing my mom liked about it, is that she, even though I put a lot of time into, she, at least knew where I was and what I was doing. Like, I

> remember my sister used to complain about how much I played when I was younger and my mom just turned to her and said, 'well at least he's doing this and not doing cocaine.' (p. 10-11)

Given the above exchange, it seems Mike's parents saw video games as being a valuable distraction from more destructive choices that some of his peers were choosing. Mike's experience of his mother expressing satisfaction that Mike chose video games over other more destructive entertainment (i.e., drugs) and her assertion that video games were something to keep Mike busy so they could attend to their own work were expressed as important for Mike's understanding of video games. These functions were likely amplified after Mike's parents separated, a life event which presumably placed further demands on their temporal, emotional, and financial resources.

Nadine's incorporation of video games was without any time limits. Her parents did not see it necessary to put limits on the amount that Nadine could game, despite her mother's distaste for video games. The lack of limits is likely mostly driven by Nadine's media preferences – particularly her taste for television shows: "I used to be completely into, like, television shows I was just like that little kid that was addicted to that one television show or like two television shows" (p. 6). Eventually Nadine's family actually got rid of the television from the home entirely. Nadine was not completely sure why her parents had made that decision, but it may well have been in order to restructure time rhythms with television, and to a lesser extent, video games. Given that Nadine's mother actively encouraged Nadine towards artistic pursuits and thought poorly of video games, it seems likely that the no limits would have been changed to formal or informal limits had Nadine played video games more frequently.

In order to understand the incorporation process of the video game console in Debbie's home, it is important to know that Debbie and her brother had computer games much longer than video games. Debbie's mother was an IT professional and so the children:

> would get hand-me-downs of my mom's computers, so we ended up each having one in our own room. By, by our teens is {incomprehensible} about when we each had our own computer in our room and the deal was we could play the games as much as we wanted, provided with the door open. (p. 3)

The precedent set by computer gaming carried over to console-based gaming. The kids could play the console as they liked provided that they were open with the rest of the home about what they were playing and when. Gaming in Debbie's home was a public rather than private pursuit. It was not, however, a time-regulated pursuit.

Informal limits: Vince and Stephanie

For Vince and Stephanie video games were rarely problematic or an over-indulgence for themselves or anyone in their family. Nonetheless, in both their cases there was a clear sense that video games were discouraged and an informal limit guided the playtime of those in the home. In both Stephanie and Vince's stories these limits manifested as an intuitive sense of time that would be kept by their parents – particularly their mothers. Sometimes the children would play to that limit, but often they would stop gaming before it came to that limit.

Vince grew up on a chicken farm in rural Ontario. For him the major time rhythms in his childhood consisted of school, chores, sports (particularly soccer), and church (his family attended twice on Sunday and, as much as possible, did not work that day). Given the consistent rhythms of work that farm life requires, it is unsurprising that Vince and his siblings had little time for video games – "a couple hours a week" (p. 7). Vince primarily played on Sunday, between church services. At this point in the day friends and neighbours would visit and socialize. The children (mostly the boys) would tend to use this opportunity to play sports or

video games. Other than on Sunday Vince and his brother would play video games and, though there were "not set in stone restrictions … eventually my Mom would say, 'Go outside and play'." (p. 9). When I asked Vince, "So there wasn't a formal, 'you get this much screen time,' it was just kind of, your Mom had a sense of when was enough," Vince responded with, "Yes. Yeah, that's it exactly" (p. 9).

Stephanie's family received their first console late in her teen years (her grade 12 year). The timing of this appropriation (e.g., once the children were nearing adulthood) may have encouraged Stephanie's parents to not bother with formal rules as they did in her younger years: "My parents were always pretty strict about how long we were allowed to spend on technology … we were allowed to watch TV after school for an hour … So, like, max an hour, hour and a half on anything. Computers, TV, anything" (p. 3). These formal limits on other technologies in the childhood years likely served as training for the arrival of the video game console. In any case, the video game console had informal rules that were well respected by Stephanie and her siblings:

> Umm, by the time we got the Wii, we were quite a bit older, so, I think we were busier, so we weren't, we weren't home as much. But there never really was a set rule on it, and we knew if we probably had tried to sit down and play it for three hours, my Mom probably would have kicked us off. But, there was never, umm, anything said about, "You can only spend this much time." (p. 7)

Given the incorporation process that Stephanie's parents pursued for television and computers it is likely that had the video game console been appropriated when the children were younger there would have been formal rules. Because the video game console arrived when it did, these rules were implicitly understood and operated at the level of assumption and intuition.

Formal limits: Bryan, Phil, and Doug

In the case of these three participants, they all experienced formal rules about gaming in the home. It should be remembered that Phil and Doug were not console-based gamers, but rather computer gamers. This distinction is important and had far-reaching effects on the way that gaming was limited.

Bryan's home did not receive a video game console until he (the oldest) was gone to university. Bryan's family lives on a large acreage, so a great deal of the family's leisure time is spent outdoors. Over the course of Bryan's interview it became clear that time outdoors is an orienting, deeply valued component of family life. As such, the family tended to place much less value on technological objects. As a child Bryan and his siblings were, "only allowed thirty minutes of screen time three times a week" (p. 4). This rule was not video-game specific, but subsumed video games, along with non-homework computer time and television time. An hour and a half of time with 'screens' a week is very little compared to the other emerging adults I interviewed – yet this rule can only be understood in the context of a Moral Economy where the outdoors were viewed as yielding unlimited fun, challenge, and beauty. It is difficult to say how the Moral Economy of the home would fair if moved from the context of rural Northern British Columbia to an urban centre.

Phil's family's video game limits were interesting for two reasons: first, the rules in their home were tied to family friends and second, they made a distinction between different types of games that were governed by different rules:

> P: Umm … so, my parents had a rule that we could only play non-constructive games on Fridays and other days we had to play constructive games. Umm, educational, stuff like that (pause) unless, we were playing games with friends. So we actually had a, a, uh, a family that my parents had met in college and we kind of stuck together so, umm, we would invite them over, they would invite us over a bunch so we could play video games … Cause that was the rule for both our families. (p. 5)

Phil's parents' choice to share a rule about playing video games with their family friends was a unique instance of coordination around incorporation between different households. While it may have been coincidence or an iterative process that brought both households into coordination about this rule, it seems likely that there would have been an instance of discussion between the parents of the two homes to decide the most prudent way to coordinate a consistent rule that would not undermine the authority of either household. Ultimately the decision they came to encouraged increased social contact between their children – an interesting decision for family friends who have "kind of stuck together." Further to the coordination, it is worth noting that Phil's parents made a distinction between constructive and non-constructive games. This distinction suggests that for them there was a qualitative difference between games that "would teach something about physics or somehow be (pause) or like (pause) typing, English" (p. 5) and games that were purely for entertainment. These non-constructive games were available for play either with a friend or on Fridays. It seems, therefore, that Phil's parents were willing to have their children play video games, assuming homework was getting done or it was for entertainment with friends.

Doug's experience of incorporation was unique because it was easily the most formal and unyielding of any participant. Doug expressed that he would spend time on the computer (playing games, looking at things online, building things, etc.) to the "detriment of anything else … it was totally to the detriment of any other activity" (p. 7). Given Doug's penchant for the computer this led to some conflict with his sister and, eventually, a hard and fast rule about his time on the computer:

> hmm, um, there was a lot of competing for time especially when I got into late elementary and my sister was is junior high or high school because she would actually need it for project and me being the future programmer that I was, really wanted to be on the computer all the time. So there's definitely competition there.

> And so for several years we actually had software on our computer that would boot me off after an hour. (p. 5)

More than just a formal rule, Doug's father actually appropriated software for the computer that would give Doug no more than one hour a day, seven days a week. This is certainly the most extreme and rigid example I found of a formal limitation. In this case the path of incorporation was mechanized such that there was no possible element of human error (i.e., deceit, forgetfulness, etc.) The computer program marked the time in a way that would be exact and unrelenting. Without further interviews and observation it is difficult to tell exactly what the underlying values and orientation of the Moral Economy is, but this method of incorporation implies a great variance from the Moral Economies of the households that pursued more intuitive limits on video games and other ICTs. This may be reflective of Doug's compulsive use of the computer, the competition for the relative restricted resource of computer time, the orientation of Doug's parents, or perhaps some combination of these factors. In any case, this is a unique path of incorporation in this group of participants.

Conversion

The unique ways in which individuals and households convert ICTs from public market goods into private artefacts – with their own set of particular meanings, purposes, functions, connotations, and so forth – is called conversion. Throughout the appropriation, objectification, and incorporation processes ICTs are slowly converted into private objects in their own domestic contexts. Conversion is the moment in domestication that offers the greatest opportunity for subversion. The intended, marketed purposes and connotations that come with ICTs are often radically re-oriented when ICTs leave the simultaneous neutralized/pluralistic value matrix of the public sphere and enter into any particular lived-in Moral Economy.

In these interviews I was given insight into some radical re-orientations of video games. While two participants reported a similar processes of conversion, and two participants articulated a sort of non-conversion (i.e., video games meant the same thing in the public market and private sphere), the other six participants all offered dissimilar stories of private meaning.

Video games as video games: Vince and Nadine

For both Vince and Nadine video games never came to mean more in the private Moral Economy than they had in the public market economy. They both expressed some satisfaction with them as entertainment and distraction but considered them peripheral to other pursuits in their childhood and teen years. For Vince, soccer took considerably more time and effort while giving him more enjoyment and identity. For Nadine, her art (and later her writing) was a more salient feature of her childhood experience. For them both video games were enjoyable pursuits with friends or when bored, but video games never came to mean more than an occasional distraction. As such, they both expressed little affinity or particular meanings for video games beyond that they are a fun way to occasionally spend time.

Video games as family connectors: Stephanie and Doug

While Doug's experience of computer video games was very rich and textured (and will be addressed along with Phil below) Doug's (extremely brief) experience with video game consoles mirrors that of Stephanie – a hearth for family gathering, fun, and connection. It is worth noting that for both Stephanie and Doug the video game console was the first one ever owned in the family and in both cases the video game console was the Wii. This is not overly surprising given Nintendo's engineering and advertising campaign for the Wii was intended to convey a vision of family coming together to play video games together (Chambers, 2012).

In Stephanie's home the video game console was intended to bring the family together and offer fitness opportunities to the family – particularly Stephanie's Mother (who purchased the Wii): "My Mom kinda wanted it. She wanted it for like the sports, like you can do the Wii sports and all those kinda things. She thought it'd be a good way for us to actually do something together in the winter" (p. 1). These intentions worked out fairly well as the entire family – including Stephanie's grandparents – played together. As the novelty wore off, family gaming was replaced with occasional gaming when people would come to visit – party gaming. Currently the console is primarily used by Stephanie's Mother who, "plays (laughs) a lot of Zumba on there" (p. 6). Given the patterns of use, together with its location in the recreation room, that for Stephanie's family the video game console is a toy that is useful for fitness and for large group social gaming – much like a digital board game. The digital board game/fitness machine vision of the Wii is no subversive reimagining of the Wii – this notion of what the video game is could be pulled directly out of any of Nintendo's commercials. However, it is noteworthy to highlight what the video game console is not – it is not a portal to quests and worlds; it is not an outlet for aggression or violence, it is not a place to spend more than limited casual time.

Doug's family did not own any video game consoles until his graduation from high school. As a graduation gift Doug was given his first video game console – a Nintendo Wii. The Wii was given to Doug along with "the stated reason … [that] because as a gamer I was gaming alone … and what they wanted to try and do was pull that into a more family context where we were all together socially gaming" (p. 12). Ultimately the family tried playing together but "just (pause) stopped playing it" (p. 12). For Doug the game console quickly became little more than a reminder of a vision of family togetherness that he saw as untenable:

P: I thought it was an interesting idea. I knew it wouldn't work, but…
I: And why wouldn't it work?
P: Uh, my sister and I in a room together for longer than half and hour doesn't happen.
I: Never really happens?
P: No. And fundamentally the only games my parents would be interested play were the Wii Sports ones which don't hold my attention for very long. (p. 12)

The Wii went to university along with Doug, but when his roommate had a couple of different consoles Doug never bothered to unpack it. Currently the console is "somewhere in a bag" (p. 12). For Doug then the video game console is little more than an unused (and unwanted) piece of technology that holds no real interest for him. This meaning in the private Moral Economy is markedly different than the public marketplace in which the console is an entertaining and enjoyable piece of the domestic technoscape. However, when an ICT is appropriated by gift there is always a degree of possibility that the meanings it takes on may be indifferent or negative.

Various visions of video games

The capacity for meaning-making is truly remarkable and these interviews with emerging adults evidenced this capacity. There is a particular difficulty to capturing the richness and texture of the semantic location of video games in the home. In this set of participants the conversion from public good to private artefact included articulations of video game console as escape, dollhouse, baby-sitter, nostalgic link to the past, and gendered space of conflict to name a few. These articulations of conversion represent the surface of a world of possibilities of meaning that come with just one type of ICT in the home.

As a child and teen Debbie enjoyed playing video games, but spent more time playing computer games – particularly the Sims. Generally Debbie's use of video game consoles was casual and social. Debbie noted that she would consider herself a gamer when it came to a

particular type of gaming (computer) and a particular genre (the Sims), but she would not consider herself a video game gamer: "I don't think I would consider myself even a gamer now (pause) when I hear a lot about some of the games discussed amongst friends and family and I kind of just feel lost" (p. 9). Despite feeling somewhat lost, Debbie's brother and his friends act as a bridge into that world, "They're really good about explaining it to me and I can kind of just sit in and watch them and they're cool with that. And so it's a bit different, I'm a spectator gamer in that respect" (p. 9). Between the opening into the world of gamer culture offered by Debbie's brother and the fact that Debbie's mother is an IT professional, Debbie has always felt fairly comfortable with the idea of being involved in gamer culture: "I always saw that the computer programmers were the females (laughs) … and it was kind of funny that my brother was the gamer" (p. 14). However, she also expressed a degree of apprehension that, as a woman, she may struggle to be accepted in gamer culture:

> P: I don't feel like it's that much of a factor at this point. Um … I feel like the main thing would be uh, if I wanted to get into a game, that might be where it came in because anything I don't know might be viewed as because I'm a girl.
> I: Okay.
> P: And so it might be harder to get into a game, but I think once there's, once there's an established gamer that's female, it's not really a barrier at all to have a girl in the game but getting into it is still that bit of a blockage. (p. 14)

Therefore, for Debbie video game consoles are sites for gaming, socialization, and fun while simultaneously being a site of gender struggle – similar to the gendered vision that Sunden and Sveningsson (2012) offer. While she feels that she would ultimately come to be accepted in gamer culture if she wanted to pursue some console or computer based game, she expresses that breaking through the stereotypes may initially be difficult. While the public market presumably does not intentionally portray video games as a site of gendered conflict – particularly of oppression and bigotry towards women – it would be a relatively easy case to make that the

video game industry has done a great deal to create a culture that is focused on young males, even to the point of excluding women as legitimate gamers. Debbie articulates that, for her, using technology is natural and comfortable (her job at the point of the interview was in Information Technology), yet there is some degree of apprehension to the idea of counting herself in the world of 'gamers'.

Of all the participants Mike was the most active, serious console based gamer I interviewed. Though he had become a PC gamer in his college years, his teen years were particularly highlighted by years of avid console gaming. Mike expressed that the stories he found in video games kept him determined to complete games. He wanted to see the story unfold – to know how things ended for the characters. When asked if Mike was a perfectionist or achievement-seeking gamer he replied, "I was never, umm, a big achievement guy. I usually played just for story and for fun" (p. 12). When pressed about why the stories were important for him Mike expressed a desire for escape:

> I think it was just (Pause). Umm … (Pause). I think it was a lot of things. I think it was, uh, mostly it was just something I just enjoyed doing, 'cause it was just so it interesting to get caught up in the story or getting caught up in beating the next boss or beating the game. But, it was also was that, uh, a really good escape (pause) so (pause) like when my parent's got, like, separated, if I, like, and I was kind of going through depression, like, that was a place I could go where there was no, like, nothing would bother me. Cause it's not like I'm going to think about what's going on in the outside world when I have this thing in front of me, and it's enjoy, like, it's enjoyful. So that's, so I'd say for entertainment and for escape. (p. 12)

As Mike became emotional in relating the story of his parents separating, and his playing video games as an escape, it became clear that the video game console acted as a gate into a world that was not painful. The stories of the characters allowed Mike to disengage – to 'escape' in his words – from the painful world he was living in. More than just being fun or entertaining, in

Mike's private space video games were converted into a retreat away from the pain of his parents' separation.

In order to understand the way that Catherine and her sisters converted the meaning of video games to suit their domestic space, one must particularly understand one game – Shrek 2. Shrek 2 is a spin-off game based off of Dreamworks' famous *Shrek* movie series. Generally in gamer culture, movies that are converted into video games are regarded as cash cows, targeted at parents looking for games for their children and young kids who have not yet realized that the face of their favourite cartoon character does not ensure that the game will be enjoyable or well-made. It is noteworthy, therefore, that Catherine regarded this game as being the most important game of her childhood. When she brought up the game a look of excitement came over her face and she exclaimed, "You have to play it. It's so good. So much fun" (p. 5). The game had a cooperative mode and so Catherine and her sisters (or father) would play it. What is interesting though is that they did not play the game from beginning to end to 'wrap' the game. Wrapping it was only the beginning of the fun for the family:

> P: I know that there were some chapters that we didn't like, So as soon as we were done them – like fully done them cause we were completionists, so we would go back and make sure we got every little coin and everything – once we were done that then we left those levels alone. Like, we didn't go back to chapter one or chapter four we just didn't like them. But we went back constantly to the chapters that we did like and we actually found tons of, like, we played that game so much, we found the cheats, or this area where you could fall behind the screen and like walk behind where the developer built
> I: Oh okay. Yeah.
> P: Yeah. We just loved it and so then we'd come up with our own stories and our own little games just using that little chapter.
> I: Interesting.
> P: Yeah. That's kind of how we played it but it was almost like they were dolls that we were playing with instead. Right? (p. 12)

Beyond wrapping the game perfectly – something important for these completionists – Catherine and her sisters subverted the intended purpose of the game and created a type of digital

dollhouse. Even small glitches such as the area "where you could fall behind the screen" became opportunities to explore further. Catherine also reported playing a number of musical games. In fact, she reported that they only used the PlayStation 2 for playing "just Karaoke and Rockband" (p. 6). In part these games may have been preferred because they are social games that the family and guests could play together. Further to this is the fact that Catherine is a singer (former voice major in university) and as such these musical games provided a simultaneous learning opportunity and challenge:

> Yeah. I really liked it because it's a fun way to learn songs – the way it kind of tracks your voice. It's a cool piece of technology. I remember when I tried it for the first time I was like, 'it knows where I'm singing'. Like, I thought it was so cool so that's why I kept singing because I wanted to like, I'm a completionist and not necessarily a perfectionist but like when it comes to games, why not get the 100%? So I wanted to get every pitch right and because I'm a singer I wanted to make sure I could sing all these songs. (p. 13)

Over time, as Catherine and her sisters have grown up to become emerging adults, the video games consoles have taken on a nostalgic quality. As such, the oldest console has been relocated to the family cabin:

> Yeah. We kind of all are very nostalgic about these kinds of things … We liked to connect to those things. Actually the cabin is kind of a place where you can always be a kid, so we take a lot of our toys out there. So that's why the Xbox got booted out there as opposed to like the Wii or the PS2. Cause those things are kind of like more of our teen-ish aged kinda toys. So we just kinda send everything that was from our childhood out there. (p. 9)

In these three quotes it is clear that for Catherine video games consoles represent a great deal of private meaning – an opportunity to make unique games (digital dollhouse), a platform for voice training (digital voice training), and a representation of her childhood (memory-Box). In the private space of Catherine's home the video game consoles have been converted to take on a breadth and depth of private connotation and meaning that seems incomprehensible in the public marketplace.

More than any other participant, Bryan's opinion of video games was very negative. Bryan never owned a video game console throughout his childhood and teen years. In fact, he reported his most fond times were spent outdoors or playing board games with family and friends. When asked about whether he would purchase a video game console he articulated that he would not. When pressed for a reason why he articulated that they seem to him to be a sign of affluence:

> Uh, yeah, it's stronger than just like a preference. Like, I don't know, I think it's, and this is where it gets complicated, I think it's a sign of affluence, and like, and so … yeah, I just, I kinda grew up that way … I just think it's something that is a ridiculous expense. (p. 14)

While Bryan identified that for him the money spent on a video game console is a ridiculous expense, there is some degree of irony because:

> [a]t the same time I would spend 300 bucks – so this is where it doesn't quite line up, right? – on my Mountain bike, which is also a sign of affluence and, you know … so, umm, I don't, yeah. I don't have an answer for you on that (laughs). (p. 14)

Bryan struggled to find a reason to justify his understanding of video games as a sign of affluence. Ultimately he tried a number of justifications (socialization, exercise, productivity) that did not seem satisfying, not even for him. While he never settled on a reason he was clear that for him there was a clear distinction between video games and (for example) outdoor equipment. Though he recognized that mountain bikes, camping equipment, etc. are also signs of affluence, he still felt intuitively that they were somehow qualitatively different than video games. For Bryan then, video games are little more than an unneeded sign of affluence. This understanding of video games underpins his disappointment when his family purchased a video game console.

Sandra related two defining features of video game consoles in her experience. First, as explored in the section on incorporation, video games served as an informal babysitter for Sandra and her brother after the separation of her parents. Video games became a way to stay occupied and entertained when bored without making demands on her over-worked/over-stressed mother. Further to this video game consoles offered Sandra a way to be 'one of the guys.' The only girl in a family with three older brothers, it is not entirely surprising that Sandra wanted to fit in with the boys. Video games offered her an avenue to do just that. Conversely, gaming tended to be something she would not bring up with girls:

> P: I think if I tried to impress someone, like a guy, like when I was little – cause I always wanted to be one of the guys, like I'd play soccer with the guys and wanted to be seen as like just as good – I'd maybe try to bring it up when I was like 8 or 9 if we were playing soccer, like, 'oh, I kill at MarioKart.' Like that kind of thing, I think because it's a method of being like, 'I'm just as good, I play video games like you guys' … like cause it's a guy thing when you're a girl, and little.
> I: Sure.
> P: Umm, I never brought it up when I was just with girls typically. I had one friend who really liked to game where I'd be like, 'Do you want to come over and play Mario Party?' But, that's, it wasn't typically something that if I met someone new I would mention (laughs). (p. 11)

In Sandra's experience video games were most closely associated with the male experience and with male interests. Both her time playing video games, and her representation of herself as a gamer to both male and female peers was contingent on a gendered presentation of herself. To male peers she would try to impress she would take on the identity of the gamer-girl – just as good as any guy. To female peers she would leave the gaming identity silent, presumably in favour of other more feminine interests and pursuits. In essence, Sandra converted video games into a ticket of acceptance with male peers.

Both Phil and Doug are anomalies in this study – neither had any meaningful experience of video-game consoles while growing up. Their experiences of gaming were entirely mediated

through computers. Phil and Doug are likely different than the average emerging adult who primarily gamed on computers. For one, both of their fathers were IT professionals. Additionally, they both entered a computer science major in university – with the initial hope of designing some type of video game. One might assume, as I did, that their interest in video games fuelled their interest in programming. Upon closer inspection, however, it seems that it may be the other way around. Phil on this topic said:

> P: Well, I, I don't think I was so much associated with the gaming culture as much as the general computer programming technology culture.
> I: Okay. As in that's a bigger culture and gaming is a facet of it?
> P: Yeah, it's like an artistic output. (p. 7)

For Phil, gamer culture was a subset of programming culture – where he really felt at home. Indeed, his desire to play games was superseded by his desire to analyze games: "I didn't enjoy gaming as much as I enjoyed analyzing games" (p. 12). In like terms Doug expressed that video games were interesting to him, but as he discovered as a young child – making games was even more interesting: "I discovered a program called game maker because as much as I liked to play games, I also really liked to make them and game maker made making games really, really simple for a kid in fourth grade" (p. 7). For Phil and for Doug, video games functioned as a kind of 'artistic output' that was possible as computer programmers. Their desire to do programming was not motivated by video games; their desire to play video games was motivated by programming.

Other recurring themes

In the course of these ten interviews the emerging adults offered a rich account of the domestication process in their lives. However, other themes inevitably came out over the course of the interviews. I have selected two themes that were recurrent and significant in the interviews. Particularly, I have given precedence to themes that are reflective of emerging adults

attitudes around domestication in their own lives. These themes were the common experiences that emerging adults offered over the course of the interviews. Rather than tracking all ten interviewees, I rely on illustrative voices in articulating these themes. The recurring themes that I found were emerging adults approving of their parents domestication style and emerging adults as simultaneous technological natives and technological immigrants.

Emerging adults approving of their parents' domestication style

One unexpected finding was numerous participants explicitly endorsing of their parents domestication programme. Of the ten participants, seven made some formal articulation of their endorsement for their parents' domestication style and only one suggested they would not endorse their parent's endorsement style. What makes this theme particularly noteworthy is that the participants were not directly solicited for this endorsement in the negative or affirmative. Most of the comments came while discussing whether the participant would have video game consoles in the home as a parent.

Mike endorsed his parents appropriation of video game consoles into the home, noting that he would pursue a similar appropriation style: "It would be like how my family had it…kids wouldn't get until they're old enough, and they would play it with restrictions – you have to have homework done and you have to come to dinner as a family" (p. 18). For Mike's family, dinner as a family is a central orienting event that brought together the scattered members of the home to a common table. It is ironic, or perhaps particularly poignant, that Mike stressed dinner as being a requirement that he would endorse as a parent given the eventual scattering of the family as a result of his parents' divorce. Mike's emphasis on homework – as both the son of teachers and himself an aspiring teacher – is hardly surprising.

Vince and Stephanie shared a common reason for approving their parents' domestication styles. When asked what types of games Vince would feel comfortable with having in the home as a parent, he replied: "I think I would say the same thing as my parents, where I would have to review the games first and, umm, I can totally understand why they didn't want me shooting other people" (p. 16). Likewise, when asked about content of video games for kids Stephanie replied, "I'm kind of with my mother. Not a huge fan of the violent ones and, shooting people and things (pause) and (pause) but I just, I'm not a fan" (p. 11). Vince and Stephanie, as agents of their own Moral Economies, both expressed that video games that promote violence are problematic, especially for children. I do not know what sort of role violence has played in Vince and Stephanie's homes, but it seems likely that violence was marginalized as problematic and threatening to the symbolic order of the home given their hesitancy (perhaps even disdain) for violent video games in the home.

Debbie and Catherine both agreed with the objectification, and by implication incorporation, of video games that their parents had pursued, but in different ways. For Debbie, on the issue of where a video game console ought to be placed in the home she agreed with her parents objectification process: "I think I would side with my parents and that I'd want it be kept away until it's being played with (pause) and then so that it's not the center" (p. 18). Catherine, who noted that the question was a difficult one for her as she does not plan to have children, said that she would be happy to have video-game consoles in common areas of the home rather than private spaces – much like her parents, "Personally, the way I grew up with playing games, I grew up playing them together. They're a family, like, game (pause) or just a two person thing … seems weird to have it in your room alone" (p. 24). Debbie was willing to have video games in the home provided that they did not become the center. This may in part be understood

through her marginalized experience as a girl-gamer. Given that Debbie is peripheral in negotiations of video game space, it seems understandable that she prefers to have video game consoles as peripheral in the home. Catherine's endorsement was around the objectification of video games in common areas, rather than in private areas. Catherine did not articulate a problem with a video game console becoming the center of attention – given that that center is inclusive and fun (i.e., her experience of video games).

Bryan was a unique participant because his rejection of video games was primarily in response to a question of identity. By rejecting video games, Bryan identified with his parents, his immigrant roots, his heritage, and his home: "I think (pause) partially just the way I've grown, like, I'm like my parents here (laughs). Yeah … I guess maybe that's partially immigrant culture – I'm third generation" (p. 10). For many individuals their notion of 'immigrant culture' would not preclude them from appropriating video games into their home especially as 'third generation'. In fact, by third generation, many individuals cease to conceptualize themselves as part of 'immigrant culture' at all. Bryan's worldview is shaped by his conceptualization of himself as Dutch-Canadian, though it is difficult to tell what exactly that has to do with rejecting video games. It may be that the cultural heritage serves as an all-purpose excuse for any pieces of contemporary culture he dislikes, or it may be that the cultural roots of his Moral Economy bind him tightly to the past generations and some particular, inarticulate orientation around how one ought to spend time and money.

For Phil, he noted that "I'm kind of standing behind my parents" (p. 11) in that he would only allow games that "points itself back to reality" (p. 11). Educational games and games that facilitate (rather than detract from) social interaction were privileged in Phil's parent's home and, it would seem, will be should he become a parent. Phil's passion is to create educational video

games and this might be seen as an expression of his orientation toward games as an artistic output of programming coupled with his deep fears around technology heralding a dystopian future – his "Frankenstein's monster" (p. 14).

It is worth noting again that what is so compelling about this finding is that these participants were not asked whether or not they agreed with or would attempt to replicate their parent's domestication process. Perhaps with an explicit question the endorsement would have been even stronger. Of the remaining three participants, only one offered a minor criticism of their parents' domestication style. It is possible that, if asked, they might have expressed their endorsement for their parent's domestication of video game consoles. However, it is possible that if directly asked more participants may have offered a more tempered response (i.e., a mix of what they would and would not endorse) or even a negative response.

The one criticism of parents' domestication style came from Sandra who mentioned that, "I'd want to play with my kids more than my Mom did" (p. 16). Sandra did not elaborate on this comment, and I did not ask for further information. It is possible that Sandra may have been suggesting that she felt her Mom did not spend enough time directly overseeing video games; however, it is also possible that Sandra meant that her own experience as a video game native would make playing video games with her children enjoyable. While I can only speculate what this comment meant, as I re-read the transcript for clarity it seemed likely to me that Sandra was not criticizing her mother so much as she was expressing her hope for a happy, successful marriage. At the time of the interview, Sandra was engaged. Given that her mother had to parent alone, it is not surprising that she had little time to play games (video games or otherwise with the kids). I believe that Sandra was expressing that she hopes that her domestic space will

be marked by a harmonious marriage and the emotional, financial, and energy resources to have a great deal of time with her children.

A direct, explicit questioning of the ways in which emerging adults would emulate and critique their parents' domestication style would have offered a more formal, complete articulation. However, as this was not a question that I explicitly pursued, it is worth noting that the majority of emerging adults explicitly endorsed some aspect of their parents' domestication style. Future researchers may take up the mantel of exploring the endorsements and criticisms between parents and children in the domestication process as those children become parents themselves.

Emerging adults as simultaneous video game natives and video game immigrants

Video game consoles have been a ubiquitous feature of the domestic technoscape for at least twenty-five years. Therefore, for my emerging adult participants video games are a ubiquitous feature of their experience. However, one would be misguided to assume that the experience of video games today is analogous to the experience of video games twenty-five years ago. The emergence of online gaming, motion sensing gaming, vastly improved graphics, cross functionality of the console (e.g., online portal, video streaming, etc.), cross-platform functionality (e.g., integration with mobile devices), touch screen technology, and the emerging room-monitoring technology of the Xbox One have all re-defined console gaming. The enormous shifts in the technology and culture of gaming have left emerging adults in the odd position of being simultaneous video game natives and video game immigrants. While emerging adults have only known a world with a billion-dollar video game industry, recent changes in video game technology and culture (together with broader technological changes) have presented some challenges to emerging adults as they locate themselves in a formerly familiar world that is

changing rapidly. Eight of the ten participants articulated some type of tension with emerging gaming technologies. There was a wide variety of tensions about emerging gaming technology: games as propaganda, games as anti-social, games as too engaging/addictive, etc. In each case emerging adults expressed discomfort, even fear, about new gaming technology.

Sandra's discomfort with the current generation of video games was related to their propensity to act as propaganda. When reflecting on the games that her fiancé plays, Sandra expressed the following:

> I personally really don't like First Person Shooter games, even Call of Duty. Like, I just find it really pointless and also find it really huge propaganda, because I'm quite anti-the war on terror and how it all played out. And so many of these games … are such propaganda for the States and for like, 'umm' … It's like, you're fighting against Arabs and you're like, 'Really?! This is okay?' But okay … I think my fiancé likes playing Call of Duty but he's also against the propaganda and like the American Army and stuff. (p. 15)

In Sandra's case Call of Duty is in direct opposition to her political stance and orientation to the world. This development in the video game industry is likely not as new as Sandra believes as there is in fact a long history of games with ethno-centric and nationalistic themes weaved in. However, Sandra has identified a new trend in the explicitness of these partnerships. As an illustrative case, the US Army has partnered with the video game industry to develop video games for their recruitment facilities. This partnership of propaganda is arguably a new trend in its explicitness and scale.

A more common complaint among the participants was a critique of the anti-social nature of mobile gaming both in the context of smartphones, tablets, etc. as well as console based video games that are able to double as mobile gaming platforms. Nadine's concern was that games ought to be primarily social, not a means of escape:

> I would definitely … emphasize like over and over again like the social aspect of gaming. I'd probably encourage my children to have more, like, to be more like on

> something like the Wii that can be played communally rather than something like um, like a tablet or a phone or something like that where it's going to be like single person kind of gaming. I feel like I'd be I'd encourage my children more to have use video games as a means of like social interaction … [not] just using it as a means of escapism and stuff. (p. 16)

When I asked Nadine if she would allow her children to game on tablets she responded with a degree of ambivalence:

> I wouldn't like allow my children to have a one [a tablet] – like solo games, just because like I even said before I had a Gameboy and it actually was kind of like, it was just nice to do something that you didn't even really need to think about. It was just you just used it sort of as a means of entertainment. And even though, like I don't think there's anything really wrong with that it would be more, like, kind of waste of time thing. Like I just wouldn't want them spending the bulk of their time like alone playing video games. Cause, (pause) yeah. (p. 16)

It is somewhat ironic that despite Nadine's admission that she played Gameboy, enjoyed it, and found it to be unproblematic, she still would not want her children to play mobile games. Mike shared Nadine's distrust of mobile gaming, especially as a result of his experiences as a Jr. High Volleyball coach: "I coach volleyball … I'm sitting there at U-14 and there's a whole volleyball team of boys staring at their cell phones and they have a game in 30 minutes. And it just wouldn't happen when I was a kid" (p. 4). For Mike, his team playing on their cell phones previous to a game is akin to an intrusion into the sport and team space. Mike expressed that he largely agrees with his mother's disdain of GameBoys when he was a kid as he now sees his team using the cell phones as gaming/communication tools instead of giving time and attention to the sport. Debbie expressed a similar concern about the timing of mobile games. Particularly, that children must be taught to play only when appropriate and the relative ease with which one may disengage with present circumstances in favor of the mobile device troubled her:

> I think I – I think that it'd be ok to have the games on the phone but they'd have to know on the phone or tablet when it's appropriate to be playing games and you know in class at school or while you're working at your job or sitting on the sidelines at a game is not the appropriate time to be playing with your phone. (p. 16)

Debbie felt confident that she would be able to teach her children how to manage appropriate usage of their mobile devices. However, her concern seems reflective of the common tensions around mobile gaming technology that gave many emerging adults cause for concern. Stephanie noted that she felt many parents were doing a poor job of teaching their children proper management of technology. In fact, she lamented that mobile game technology was becoming a type of constant digital babysitter. This trend, she worried, is being capitalized on by game designers and robbing opportunities for experiencing nature:

> [My cousin's three-year old child] knows how to work [the iPad]. He knows to play it. He knows how to go on games. He can pretty much go on there when he wants to. If he's being bad, if he needs to be quiet, they give him an iPad to be quiet … and … that sort of thing doesn't sit as well with me. But young kids are, they're designing video games for young kids and stuff like that and … I don't think it's healthy. I don't think it's healthy for young kids to be sit, starring at a screen and controlling things. There's so much more out there and as a kid you're supposed to be out there learning things, being active, discovering things and, being outside … even in a yard in the city where it's tiny, you can learn a lot about grass and dirt and worms if you just go outside. So, for me, that's sort of the way that it should be, well, this is really general, but, society is doing technology to younger and younger, umm, children, kinda scares me. I'm not really comfortable with that. (p. 16)

Doug echoed Stephanie's concern noting that he would not give his children a tablet until they reached a certain age and maturity level. In part Doug worried about the potential for micro-transactions that could rack up hundred or thousand-dollar bills. Further to this Doug worried that:

> If they're sitting there playing a puzzle game that has no social interaction whatsoever on an iPad for day after day after day, they're not getting outside, they're not getting the same exercise, and ultimately it's sort of focusing everyone down to this one little thing. (p. 21)

As evidenced above, there is a rich vein of skepticism toward mobile gaming on tablets and cell phones among emerging adults. The mix of concerns may vary in validity; however, it is unsurprising to see emerging adults, who are immigrant to these technologies, express deep

ambivalence and fear toward these new technologies. This ambivalence and fear may be indicative of little more than yet another wave of media panic lead by individuals unfamiliar with the new technology.

Phil had a unique type of concern about the coming generation of video game technology. As a computer programmer and game designer Phil expressed his excitement and hopefulness about gaming technology. Phil went so far as to say that he hoped to be a part of a new generation of 'edu-tainment.' Conversely, however, Phil expressed a deep distrust of new gaming technology – particularly the degree to which new games are too engaging:

> I: Would you have console based video games in the home?
> P: I … would have to see what the consoles would look like. I am very afraid of consoles, if they become too engaging and, umm, very individual experience then people will completely lose sight of reality, umm, so if, the generation of consoles that my kids see is like a virtual reality headset, and, (laughs), really interesting and immersive I'd be like, 'Nope. You are going outside.'
> I: Because?
> P: Because, because I understand that, umm, people need to engage with reality and if something becomes more engaging than reality than you've got a problem. And you'll just, you will, since this virtual world is more engaging then you'll go to it more than what will become less engaging, as you lose ties with reality, umm, and it just becomes a spiral of someone receding into a virtual world and becoming complete inept in the real world and I don't want that for my children.
> I: And so what kind of prompts that nervousness for you?
> P: Umm, it's like, current trends, I guess, umm, there's like the virtual reality headset coming out, very immersive, very exciting, but yeah, just very scary. Cause, just – getting people more buried (pause) instead of more aware of the world
> I: Have you had experiences with friends or personally where you have where you've seen people sort of more immersed in false world than the real world?
> P: Umm (pause) I (pause) I don't (pause) I don't know if personally I've experienced it. Like, the, I think the closest person to that is myself, umm, cause yeah, like some summers I would be completely disconnected from what's going on and it could be just because nothing was going on or I wasn't making anything go on, and then, and then just like anecdotes online of people like Massively Multiplayer Online Games like Warcraft for way too long. And like, one of my roommates trying to kick the habit of World of Warcraft and then just going back to it after a little while because real life is too boring or whatever. (p. 11)

When I noted that there was a degree of irony that Phil, an aspiring game designer, had deep ambivalence about the coming technology he simply commented, “It’s like Frankenstein’s monster” (p. 14). Phil’s experience of being Frankenstein, fearfully creating something potentially uncontrollable is interesting and may speak to the experience of many game designers who work at forging the technologies that they must then domesticate in their own homes and lives.

Chapter 5: Conclusion

Introduction

In the results chapter I have identified themes that characterize the phenomenological experience of domestication of video games, as experienced by ten Canadian emerging adults. I have given voice to emerging adults' experiences by using my participant's own words as much as possible. Here I offer a few suggestions about what these themes teach us about domestication of video games specifically as well as the dynamics between technological immigrant parents and technological native children. With regard to the latter, I particularly attempt to frame emerging adults as video game natives who are in the midst of a gradual metamorphosis to video game immigrants – a process that is inevitable and repetitive in the context of technological innovation.

Domestication: So what?

In the results chapter I offer extensive articulations of the Domestication process from the prospective of emerging adults. These articulations are important as a small insight into the experiences and attitudes that represent the coming generation of parents and guardians. As emerging adults move from emerging adulthood into full adulthood the decisions that they make about what ICTs are appropriated into the home, how they are objectified and incorporated, and what meanings will be converted into the ICTs will define the coming generation of consumer activity, of norms in the home, and the relationships that are privileged with technology. As such, domestication gives us the tools to glimpse into the black box of the Moral Economy and discover just how ICTs are contextualizing human experience and human flourishing.

Domestication findings running throughout the research

Principally, my research revealed the enormous breadth of styles of domestication that characterize emerging adults' experiences of console based video games – and of ICTs generally.

Domestication styles are themselves reflections of the Moral Economy. There is no distinction – or only an artificial distinction – between Domestication and any other process of exchange in the Moral Economy. By pulling Domestication out from other processes within the home and exploring it I have managed to evidence the Moral Economy at work. Further, my research was inspiring (at least on a personal level) in its reflection of the incredible capacity for private, layered meanings around ICTs. The participants evidenced a multiplicity of private meanings around console based video games that were continuous with other deep personal experiences and meanings. This finding ought to give the reader some degree of hope about the human spirit. The meanings of consumed objects – though partially informed by their identity as mass-produced, branded, consumer goods – were shaped in great part by the context lent to them by the Moral Economies where they were placed. These findings were not evidence in any on particular statement or theme but rather are embodied in the totality of the research. In the variety of experiences of appropriation, objectification, incorporation, and conversion there is evidence not just of the themes themselves (which are explored more fully below) but the variety is itself reflective of the need for further Domestication research that takes on different contexts, ICTs, and participants and employs a suitably wide variety of methods and perspectives.

Characteristics of the domestication process in Canadian homes

Working from the experiences of participants that have been explored in the results, I find that there are similar features of domestication of video games that characterize Canadian homes. Addressing each constituent piece of the domestication process – appropriation, objectification, incorporation, and conversion – I offer an interpretation of the underlying threats, opportunities, and resulting tensions and ironies that gives rise to the domestication style experienced by the participants. Regarding appropriation, I see gendered decisions as being of

particular importance, regarding objectification I see a tension between independence and supervision, regarding incorporation I see evidence of evolving negotiations around privileged time in the home, and regarding conversion I see the incredible capacity for meaning-making that characterizes the richness of the moral economy. Further, I explore emerging adults tenuous relationship with technology as a simultaneous technological native and technological immigrant.

Appropriation: A gendered process

Unsurprisingly, gendered negotiations and inequality was a salient feature of numerous experiences of domestication of video games. The majority of my participants reported that the appropriation was justified for the sake of the male children in the home. This trend was challenged by one dissimilar account a father purchasing a video game console in response to the interest of himself and his daughters (Catherine) and two accounts of video game consoles being purchased to act as a family connector (Stephanie and Doug). Generally, mothers were highly marginalized, almost non-present, in the video game space. The ironic exception was that mothers tended to retain the responsibility to police the appropriation of video games and the incorporation of video games into time routines. So, despite the fact that few mothers played any video games (indeed, many seemed to have antagonistic relationships with video-game consoles) it seems that mothers are perhaps the most influential member of the household in the appropriation process – both for video games and video-game content. The gendered nature of appropriation is likely reflective of larger cultural notions of male and female roles, recreation, and domestic duties that are common to numerous ICTs in the home. However, the gender inequality that marks video games is likely amplified by the fact that video games were previously intentionally designed and marketed at young males. For today's emerging adult, the

narrative advanced by retailers in the public market, together with the implicit gendered struggles of the home, produced an experience of video games that privileged young males. While this may be shifting, it is imperative to understand appropriation as a particularly gendered process full of conflict and inequality.

Objectification: The tension between independence and supervision

Emerging adults were split in their experiences of video-game space as a 'kids' space (often in the basement or other hidden away space) and video game space as a shared family media space. This split reflects the creative differences of parents in mediating the challenge of balancing independence and supervision throughout the changes in the lifespan of their moral economy. It is a difficult balancing act for the home to simultaneously grant children the independence to game while still maintaining an appropriate degree of parental oversight and control. In making decisions about where to locate the video game console, parents privileged differing degrees of independence and supervision as in response to: the possible configurations of the home, their own anxieties and enthusiasms about the console, and their evaluation of their children's best interests.

It is noteworthy that none of the emerging adults reported that the video game console was objectified in the private space of their room. Of course, this finding does not suggest video game consoles were never objectified in the private space of a child's room. The finding does advance the notion that families struggled between competing desires for independence and supervision and that in my sample, no families resolved this tension by allowing the video game console to be objectified in *private* space.

In the three themes of objectification evidenced in the results (dedicated space, shared space, and no space). However, these findings may represent excellent answers to irrelevant

questions as the dominant technological paradigm continues to become increasing mobile-focused (i.e., tablet, smart phone, etc.). In turn, the question of static space is likely to become increasing less relevant. Further research will be needed to see what commonalities, if any, there are between the objectification of console based video games and the objectification of mobile based video games.

Incorporation: Evolving negotiations

Negotiations about time spent are constantly evolving and are resolved in a variety of ways in different homes. Most emerging adults articulated that the limits around how much time they could play changed over time. Commonly homework, sports, music, chores, and familial or religious duties were privileged above gaming time. However, as children grew older and began taking responsibility for their own pursuits, these limits were re-negotiated to emphasize children finding their own balance of curricular and co-curricular pursuits and gaming time. Likewise, over time both informal and formal limits loosened as parents came to trust their children's gaming habits were adaptive and as parents came to respect their children's growing independence. It must be remembered, however, that no emerging adults who participated in this study expressed any experiences of chronic problem gaming. Perhaps if these emerging adults had navigated the incorporation of video games into their routines, the re-negotiation of video game consoles may have been more stark, directive, and formal.

In the home, it may be that the limits enforced by parents may help to stem the tide of problem gaming. Alternatively, it may be that limits function more for the comfort of the parents with their own reservations, annoyances, and frustrations with video games. In either case limits on incorporation are common, though not universal in most moral economies. If the privileged time routines (i.e. homework, sports, music, family time) begin to suffer, the negotiation must be

re-examined. In essence, this privilege of other pursuits over video games reflects a view of video games as entertainment. However, some emerging adults reported that they would have no problem with their children pursuing video games as someone might pursue a sport or musical instrument, so it is possible that the age of professional gaming will bring a degree of new legitimacy to the pursuit of video games at a professional or semi-professional level, much like sports have today.

Conversion: Evidence of the richness of the moral economy

Given that conversion is concerned with the experience of one's own identity relative to, and as informed by, a technological artefact there was a variety of unexpected, even beautifully poignant, conceptualizations of the meanings of console based video games. The findings in the results section underscores the domestication process and reflects the two-way nature of domestication. While the users tame technology in ways that are continuous with their own agendas, values, and orientations the technology in turn shapes the users in ways that ensure its survival, even flourishing, in the home. Some interesting recurring findings around identity and video games had to do with the gendered nature of video game spaces. Many participants remarked that the video game console was primarily owned and used by males in the home. Further to this, the games that women tended to play and own were non-traditional video games such as Karaoke, musical games, fitness games, and dancing games. This finding is supportive of other work on video games which have found the console to be a space of gendered struggle and marginalization. Additionally, the theme of escapism and video games recurred in numerous interviews. Both in times of emotional upheaval (e.g., parents divorcing) and in times of general life dissatisfaction (e.g., boredom) it seems that video games were commonly used as, and thought of as, a means of escape – a portal to other, better worlds. One must recognize then that

video games are rarely merely video games for the members of the home. Video games represent opportunity, identity, meaning, membership, significance, struggle, frustration in an unrelentingly limitless way. The researcher attempting to understand video games in Everyday Life must be acutely aware that the same console does not imply the same meanings household to household.

Emerging adults as simultaneous video game natives and video game immigrants

As emerging adults reach out of their experience as minors under the care of their parents and into a new experience as citizens, members of the workforce, homeowners, parents, etc. a variety of changes occur. One key change is a loss of membership in the world of children and teens along with a loss of leisure time. This loss of membership distances emerging adults from the lived realities and experiences of a new generation – particularly the generational technological realities. While emerging adults may adopt new ICTs as they are invented, the adoption is adoption of foreign technology – the ICT that did not 'always' exist and emerging adults can remember the 'world before'. Emerging adults occupy the odd space between being technological immigrants and technological natives. Their life experience is suitably short enough that nearly every ICT commonly experienced in the home has been a salient feature of their life. Yet recent innovations and the ever-looming news of astonishing coming ICTs threaten to re-orient the world with new possibilities – particularly, the possibility of a world in which they must relearn how to navigate the technoscape in broader society, at work, and in their home. The threat/reality of becoming a technological immigrant for the first time was met with a great deal of trepidation by my participants. Many of the participants expressed fear, frustration, or disdain of both the new ICTs that had come to market in recent years and the ways in which people took up using these technologies. Particularly, inappropriate and anti-social use of

mobile devices was critiqued by a number of emerging adults. It is impossible to say as of yet whether culture will offer growing social sanction of 'inappropriate use' of today's novel ICTs or if the cultural notion of what is 'appropriate use' will shift. It is noteworthy at least that these emerging adults, who offered no major critiques of the technoscape in which they came of age (e.g., ubiquitous television, computer, video game, telephone use), yet seemed to espouse some degree of media panic around emerging ICTs. It seems as if emerging adults are following the pathway of generations before them in offering a non-critical acceptance of their particular technological complex and deep, unfounded hyperbolic fears about the coming technological complex. In this way, emerging adults are becoming the technological immigrants that will be responsible for guiding the next generation of technological natives through domestication. In the case of my participants, it seems that most emerging adults plan to domesticate the coming technologies in the same manner as their parents.

Conclusion: The need for continued research

A full understanding of domestication of video games will require an ongoing effort by a field of researchers. This research offers a simultaneous template for replication and opportunity for critique and refinement. In a world where the video game industry takes in billions of dollars, where video-game consoles may increasingly be used as potential surveillance tools, where the average teenager will spend more hours gaming than reading, and where a growing portion of the global population are native to some type of video gaming; it is imperative that domestication researchers take up the task of developing descriptive and perhaps, in time, proscriptive accounts of domestication of video games. As often is the case it falls to the work of the academy, in partnership with interested parents, community organizations, and

individuals, to offer a thorough account of the state of the field and sober, humble reflections on how we then ought to best live towards flourishing.

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Appendix A: Recruitment poster

Video games, the hearth of the contemporary home? An investigation of the emerging roles of video games in the home

Study Background

- I am looking for unmarried 18 to 25 year olds to participate in a one hour interview about video games in the home. The results of this study will be used in support of my thesis in completion of the Masters of Arts in Communication and Technology program at the University of Alberta.
- My research is intended to gain a better understanding of the total effects of video games in the home as well as how families have responded to these effects.

Interested Participants

- If you are interested in participating in this research, or have any further questions regarding this study, please do not hesitate to contact me at jnoble2@ualberta.ca or at 780-222-8782.

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Appendix B: Participant Consent Form

INFORMATION LETTER and CONSENT FORM

Emerging adults and the domestication of console-based video games in the home

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Background

- You are being asked to be in this study because you are an emerging adult (unmarried 18 to 25 year old who has never owned their own home). For the purposes of my research, I am only interviewing emerging adults.
- The results of this study will be used in support of my thesis in completion of the Masters of Arts in Communication and Technology program at the University of Alberta. The information gathered will not be sold nor will it inform any commercial interests.

Purpose

- My research is intended to gain a better understanding of the total effects (positive, negative, and neutral) of video games in the home as well as how families have responded to these effects. My research samples emerging adults in order to understand 1) how emerging adults' families managed video games in the home as when they were growing up, 2) how emerging adults manage video games in their own lives, 3) how emerging adults plan to manage video games if they become parents.

Study Procedures

- You will be asked a series of open-ended questions about video games and the home. These questions are intended to help me understand your attitudes about video games and understand what the influences on your attitude(s) have been. I do have a loose outline of questions, though we may pursue additional related questions that come up in the course of conversation.
- Please note that audio from the interview will be recorded.
- The following data will be collected:
    - An interview of approximately 1 hour in length.

Benefits

- There are no foreseeable benefits associated with this research aside from an opportunity to reflect on an otherwise ubiquitous feature of contemporary culture.
- I hope that the information from this study will help me to better understand the ways that families construct rules, traditions, norms, and meaning around video games in particular and technology in general.
- There are neither financial costs nor financial compensation for your participation in this research.

Risk

- I recognize that any questions about the home can potentially be of a sensitive nature and there is always the risk of embarrassment and discomfort in interview research. I will work to help you feel comfortable in the interview. Additionally, should you feel there are any questions that you are uncomfortable answering; you are under no obligation to do so. Please see the below "voluntary participation" and "confidentiality & anonymity" for further information on my commitment to minimize risk for you.

Voluntary Participation

- You are under no obligation to participate in this study. The participation is completely voluntary. As such, you are not obliged to answer any specific questions even if participating in the study.
- You are free to opt out without penalty at any time for any reason. Also, you can ask to have any collected data withdrawn from the database and not included in the study for up to one month after the interview. Should you opt out or ask for your data to be withdrawn after the interview, your data will be safely destroyed.

Confidentiality & Anonymity

- This research is intended to form the empirical component of my Master's thesis. Additionally, this research may be presented at a conference. You will not be personally identified in any research presentation.
- The data will be kept confidential – only my thesis supervisor, an approved transcriber, and I will have access to the data at any time.
- I will work to protect your anonymity by having your transcript denatured (have your name replaced with a pseudonym and remove any identifying information such as family members names, hometown, etc.)
- The data will be kept in my office at the University of Alberta Extension, under lock and key. Electronic data will be housed in encrypted folders on two external hard-drives for 5 years after completion of my research (as per University of Alberta policy). After five years, all data will be destroyed.
- Should you be interested in learning about the research findings, you are free to contact me at jnoble2@ualberta.ca. I anticipate that I will take 8 – 12 months to finish my research.

Further Information

- If you have any further questions regarding this study, please do not hesitate to contact me at jnoble2@ualberta.ca or my thesis supervisor Marco Adria at madria@ualberta.ca.
- The plan for this study has been reviewed for its adherence to ethical guidelines by a Research Ethics Board at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Research Ethics Office at (780) 492-2615.

I have read the information letter and hereby give my consent to be involved in this study

_____	_____	_____
Name (printed)	Name (signed)	Date