I, Marcy A Mankosa, hereby submit this original work as part of the requirements for the degree of Master of Design in Design.

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Make it Mine
Technology’s affordance for self-expression

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Abstract

Personal electronic media devices have evolved from being purposed-based articles into objects of projection; they are now existential embodiments of self. Today, for Generation Y, significance is not found solely in an object’s design but rather in the malleability the platform affords. The purpose of design has shifted from aesthetics and performance to self-structured e-media platforms. This is driven primarily by each individual’s need for personal possessions to reflect one’s self. Aesthetics and performance are a given in today’s narcissistic lifestyle. The proliferation of personalized electronic devices among Generation Y has pushed e-media to where product value has been supplanted by personal need and the desire to ‘make it mine.’ This thesis examines the changes in need and desire for personal possessions. By analyzing Generation Y’s communicative evolution and emotional relationships towards malleable e-platforms we begin to understand Gen Y’s desire for unrestricted information. These platforms have become a kind of Harry Potter-esque ‘Horcrux’ – fragmented pieces of ourselves left in personal electronic media we use today. This is our new reality, our new ‘self.’
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“Anything’s possible if you’ve got enough nerve.” - J. K. Rowling
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BACKGROUND

Introduction

This thesis delves into the world of personal electronic media to analyze the successes and defeats of personal choice in a world dominated by technologies. Single-function items are no longer relevant. Repurposing old technologies, individually transforming new ones, or designing one’s own provide a compellingly adaptable story in which we are able to project our existential selves. It is Generations Y and Z that serve as the most striking consumer group for analysis. Generation Y is mass-market purchasers of tomorrow. Future-forward designs will be adapted by this generation ten years out. Generation Z represents the purchase power of the future. This generation will not necessarily be old enough to drive trend purchasing alone for the next ten to twenty years, but will have the ability to define specific market trends. By examining these generation groups, we can understand their relationship to personal electronic media and the drivers behind their behavior.

To initially understand where Generation Y (also known as the Millennial Generation) lives today as market drivers, it is necessary not only to obtain a grasp of where they are at present but where their state of mind began. The majority of Generation Y grew up in the 1990s and early 2000s. They are children
of baby boomers and socially more liberal than their ancestors. They wear skinny pants, retro hats, and have tattoos from nose to naval. Where generations of the past – beatniks, hippies, punks, slackers – could easily be characterized by the emotions they idolized and the social reforms they envisioned. Today’s Millennials seem to be, according to The New York Times columnist William Deresiewicz, polite, pleasant, moderate, earnest, and friendly. The word hipster quickly comes to mind when describing parts of this generation, and although this may be truer than many care to admit, Generation Y is seemingly pleasant.¹

According to Deresiewicz, Gen Y is the ‘post-emotional’ generation – no anger, no edge, no ego. When examining the landscape of 20 to 30 something’s today, everyone is special, everyone has a valid point of view, and everyone’s feelings should matter. This is not a critique on social demographics. It is in truth how things are. According to Robin Martinez Henig, the author of The New York Times article “What Is It About 20-Somethings?” this generation is overqualified for jobs, moving back home, and shacking up, not with a significant other, but with Mom and Dad.

“It’s happening all over, in all sorts of families, not just young people moving back home but also young people taking longer to reach adulthood overall. It’s a development that predates the current economic doldrums, and no one knows yet what the impact will be — on the prospects of the young men and women; on the parents on whom so many of them depend; on society, built on the expectation of an orderly progression in which kids finish school, grow up, start careers, make a family and eventually retire to live on pensions supported by the next crop of kids who finish school, grow up, start careers, make a family and on and on.”²

This newly maturing generation, according to Deresiewicz, seems to be in no rush to grow up and conform to society. Instead, society is conforming to them. It is from this mentality, that small business has made a comeback. This generation wants to step off the career treadmill and do something meaningful – selling items made from recycled garbage bags, boutique stores specializing in ketchup, Kickstarter, urban farming, etc. The list can go on and on. This is a generation of dreamers – a generation where if the perfect job does not exist, they will start a company to do exactly as they please. Call it Generation Sell or Generation Selfish, it is irrelevant.³ What is important is realizing that this is where the mind-set is today, whether or not we like it.

Not only is Generation Y a bit more self-centered than previous generations, but
they are also a generation more steeped in fantasy. Whether in terms of mom’s ‘you can do anything you set your mind to’ encouragements or the wonderful world of Harry Potter, Generation Y is steeped in a world of possibilianism.

Let’s, however, focus on Harry Potter for moment. Harry Potter is the brainchild of J. K. Rowling. First published in the United States in 1998, Harry Potter has become a phenomenon. Seven books, a theme park, fan fiction, and an online world later, it seems as though Harry Potter is unstoppable. However, it is key to understand the affordances Harry Potter lends to intangible fantasy, as much as it is to understand why Harry Potter resonates so well with Generation Y.

Harry Potter has become a participatory media content. Rather than readers simply reading a book and moving on, they now have the option to interact in a world beyond the first and last pages. Fanfiction, among others, is an online platform where writers around the world share a common passion and can extend, rewrite, add characters, change endings, etc., to some of today’s most popular literature – the most popular being Harry Potter. Pottermore is a new online website created by Rowling herself which allows for the exploration of “Harry Potter stories in a whole new way and [to] discover exclusive new writing” from the author herself. The Wizarding World of Harry Potter is an entire theme park dedicated to the creation and maintenance of the reality of Harry Potter at Universal Orlando. This is not to mention the eight movies and countless amount of flare that go along with any such venture.

This is the world in which Generation Y matured – a world of interactive fantasy. No longer are books simply words on a page, they have become a reality. Star Wars, Twilight, The Hunger Games – all interactive fantasy. Content has evolved from being static to malleable. If someone doesn’t like the ending to a book, they rewrite it. If you are thirsty and want a drink, Butterbeer (beverage from Harry Potter) is now an option, as are remote controls in the shape of magic wands and clothes supporting the various houses (Gryffindor, Slytherin, Hufflepuff, Ravenclaw). Fantasy, for Generation Y and moving into Generation Z is now a reality and the expectation these generations have for content and its delivery is as much a dream as it is a demanded reality. Generation Y is all about me with meaning.

So where does this leave us now? Clearly we are not moving towards a culture of
interactive omniscience, but this does leave us at a crossroads, a cultural crossroads where we are trying to figure out how to connect with everyone, keep up with the Jones's, yet still be ourselves. This is where personal technology becomes exceedingly relevant. It is our outlet for control – our outlet for self-projection. In a time when everything is so accessible and uniform, personalized technology is our opportunity to make something designed to be generic our own – to make it mine.

Looking at *Wired* magazine and examining the new trending gadgets and devices, two things come to light. The first is egocentric design – people want items that reflect who they are and want both control and options within the devices they use. The second trend seen today is meaning. It is not enough to make an item aesthetically pleasing and pretty. Today, consumers want more – they want to know what special things that object can do for them.

The consumer is evolving. According to *The New York Times* columnist and author Nick Bilton, consumers are moving away from purchasing factors such as price and quality and towards the idea of timeliness. People will pay for timeliness if the experience of having something first is worth paying for - if they can purchase it immediately. Collectively rummaging, consuming, distributing, and regurgitating, the new consumer now digests content in byte-size, snack-size, or full-meal packages. We need to adapt our storytelling to fit changing interests to keep attention and create objects with meaning beyond the honeymoon phase. Our objects need to relate to the entire range of purchasers not just the snack-size user. It is no longer enough to simply deliver static content. Consumers today demand an experience – to smell, touch, or hear the pulse of the action. Users want their music, their movies, and their news tailored and tweaked to specific wants and desires on their schedule.

For example, *Wired* has recently featured techno gadgets that do nothing but make gadgets more easily revolve around your own life and schedule. The Magic Feet charger from Mobee, $200 price tag included, is an inductive charger for your Mac accessories. Magic Feet comes with a battery pack to charge your keyboard and mouse as well as USB ports to turn the device into a power hub. However, at nearly the price of a fancy pair of jeans, it is logical one might prefer to stick to AA batteries. However, in a world with a ‘Make it Mine’ mentality,
someone, somewhere needs to charge his Mac peripherals on his own schedule and do away with the AA.\textsuperscript{7}

The next series of gadgets follow the same trending footsteps as the Magic Feet charger – my life, my things, my now. Other such trend gadgets include: the iPad Frame Bag clamps to your bike while riding and turns into a shoulder bag when on foot, \textsuperscript{8} priced outrageously at $240;\textsuperscript{8} the Schneider Optics “iPro” line of optics uses a sturdy aluminum case with a special bayonet fitting to harbor three lens options, a fisheye lens for making trippy pics, a wide-angle for that epic cinema shot, and a 2x telephoto perfect for Facebook-ready headshots ($199); the Ice Cream Sandwhich, which is the first quad-core tablet on the market running Android 4.0, can snap to a keyboard dock extending its battery life by hours, providing the functionality of a laptop.\textsuperscript{9}

So what do we take away from these gadgets? Things. We like things, seemingly no matter the price. If the gadget has the technology that fits perfectly into our egocentric life, we will purchase it. No longer do we function with basic necessities, such as ‘The guy who owns only 15 things.’\textsuperscript{10} Can you imagine only surviving with the following:


Today, we want gadgets. We want gadgets to gadget our gadgets. There have been companies like Spec and Incase that have successfully developed solely based on the market customizing e-media. For many of the Millenial Generation, personalizing electronic media is not only a hobby, it has evolved into a way of life.

It is not only important to examine the electronic media that have been successful, but it is equally as worthwhile to examine those that have failed. The failure of recent or past technological gadgets is integral in understanding the successes of such gadgets today. When an item fails what did not work must be understood – whether it was the platform or the technology or both. An equation can be applied to this idea to explain the success and failures,
(technology + society desire) collective intelligence = decentralization

It is through the decentralization of our technology that success will be found.

Topic

Throughout the past half-century, the computer and associated digital technologies have proliferated in our daily lives. Rarely can we touch something that has escaped the influence of digital technology. We have become a society steeped in hard drives, hard disks, graphic cards, binary code, java, html, logarithms, nanotechnology, artificial intelligence, the list can go on and on; but do we really understand what all this means? Do we care?

We have seemingly lost touch with the basic understanding of how things work. No longer are the days when the average person can sit down and make, or even take apart and put back together, a daily set of tools. Arguably, less designed exterior packaging, we can go as far as to say no longer can we recognize the basic functionality of each of the tools we use, but each one of us has an exacting set of tools that, give or take a few aesthetic differences, is the same in basic function. Computer, cell phone, car, we each have a common set of primary gadgets; however, it is what is on the inside, the platform, that changes from person to person.

We have become a society of collective intelligence, no longer limited by boundaries. Diminished physical geography has given rise to a breakdown in our social community, therefore extending our bonds beyond the nuclear family. No longer defined by nations and states, our new communities are emergently cunning, temporary, and voluntary affiliations reaffirmed through common intellectual pursuits and emotional investments. Shifts from one group to another and associations even within multiple communities are quite common as one’s interests and needs are continuously evolving. It is within these communities where the “mutual production and reciprocal exchange of knowledge” perpetuates a collective discussion prodding each individual to seek out new information and technology for the common good.11
We are grasping for something to control. Through the technological option of personalization, we are now afforded the platforms to project and do exactly as we please. Download the app we want, the background we want, the sounds we want, the music we want. Objects have evolved from being purpose-based into objects of projection and existential embodiments of self within the social realm. Technology is camouflaged. Our levels of emotion have evolved as a result of on-demand technology and branded design in the marketplace. Our convergence culture revolves around self-expression. The adaptability of media technologies and their platforms proliferate existential expression creating reliquary attachments. Technology designs reflect this shift.

METHODS

What Technology Wants

Technology has proliferated into everything we do and use today. The car we drive, the phone we use, the computer/tablet we carry with us – every aspect of our life is steeped in a technological core. It is merely impossible to avoid – it is everywhere. In essence, we have built a convergence culture.

The most accelerated change has been in our digital connections and the way we produce and consume e-media. According to Henry Jenkins, convergence culture emphasizes the flow of content across all media channels. Functions and status have shifted within the realm of new media due to the introduction of new technology. We no longer only use one medium for our information/technological needs. The worlds of technology and media have combined, or converged, to create a world that is dependent upon each to function – we define this combined world as a convergence culture.

However, if we take a step back for a moment and try to define some of these terms we use to describe the intelligence or functionality of our things, can we do it? Do we actually understand the basic modern terms that drive our language of descriptors? More importantly, does each person intimately understand the definitions and drivers of our culture?
Technology: What does it mean? To better understand technology’s meaning and application, it is best to first examine the term ‘system’ because for the purposes of this thesis, technology is a type of system; a contiguous living system – a living system of autonomy, self-governance.

There are two key pieces to any single system – growth and essence. The growth of a system refers to its ability to multiply. In terms of cells, this means split from one to two, from two to four, and so on. Growth occurs because wants need to be fulfilled. A cell needs to eat and it needs to breathe. As these inherent needs are met, the cell grows and multiplies and becomes a larger system, sometimes called a tissue, gaining in complexity and inherent force through size.¹³

There are a few key components to any system and they include, but are not limited to, input and output, control, environment, feedback, and boundaries. A system can be a model, a framework, a process, an environment, or even a boundary. The system can be open, closed, or isolated. A system can be used for planning, analysis, design, implementation, structure, or behavior. However, all components will not be present all the time and it is the choice of components that make each individual system unique and allow each system to grow and evolve differently.

The Internet, for example, is an ever-growing system. According to the International Data Corporation (IDC) the Internet usage at the end of 1995 was 16 million or 0.4 percent of the world population. By the year 2000, there were 361 million users equally about 5.8 percent of the world population according to Internet World Stats. Over a decade later by the end of 2011, there were 1,966 million users approximating about 28.7 percent of the world population.¹⁴ With each passing year and each increased user, the system grows. The number of pages, links, documents, and web addresses multiplies allowing for more and more information at our fingertips.

The second key part to any system is its essence or the invariable nature of the thing. In Plato’s dialogue Phaedrus, we are introduced to his theory of Forms – any object, or form, exists in ‘essential nature.’¹⁵ That is to say there is an absolute idea of a form, grasped only by the mind, that makes the things around us into the definitive objects we perceive them to be. Take the chair, for example. There is the chair as it exists in reality and then the idea of its existence. The idea of
the chair is referred to as its chairness. The term chairness refers to the true and pure form of the chair; essentially, any time we imagine a form, the qualities that are consistent across the spectrum of examples become the essence. The three chairs below serve as an example of this theory.

Figures 1, 2, & 3 above are all chairs. When we first see each of these, the term we pull from our minds to describe it is chair. Each one looks different, but we still associate the word chair with each of the three different objects. The picture in your mind, the idealized version of what a chair needs to be to be called a chair, is its chairness – its essence! However you define an item, “its essence does not reside in material, like DNA, but in the intangible information contained within.”

So, what is technology? Technology is a system expressed. The growth and essence of a system builds the foundation for a technology and the larger the technology becomes, the more likely it is to behave like a very primitive organism. That is to say technology grows and changes, evolves and co-evolves, and with each passing day matures. Technology is no longer solely dependent on individuals to provide momentum – technology draws a little from each and every person. Technology has become a system of collective intelligence, an expressed system of knowledge leveraged from its users.
Through the collision of technology and humanity, we have built a convergence culture. We, as a society, created a technology that cannot exist without the influence of humanity. We have built technology driven by culture. Is the word technology still applicable to describe the convergence culture or must it evolve? Technology + Culture = Society.

Kevin Kelly, in his book *What Technology Wants* calls this society the convergence of technology and cultures, the ‘technium.’ According to Kelly, technium is the massively global interconnected system vibrating around us. The technium extends beyond the iPad, iPhone, and the expensive car. The technium includes culture, arts, intellectuality, and society – all the intangible aspects of our life, concepts, laws, and software. Most importantly, technium includes the creative impulses that drive new design, products and advertising campaigns. Technium is a tendency, not an entity, and only matter and energy limit it.

To help understand what a technium is, Kelly gives an example of communication networks. Throughout the vast communication networks shrouding the world, we find evidence that technical autonomy is, in fact, possible. Wired into one mega-scale computing platform we find over 170 quadrillion computer chips and the same number of links among files (all the links within all web pages ever created) as neurons in the human brain (approximately 100 billion). Therefore, this burgeoning technological mesh is directly comparable to the size of a human brain. It has three billion artificial eyes (phones and webcams) plugged in, it processes keyword searches at the humming rate of 14 kilohertz, and it is so large a contraption that it now consumes 5 percent of the world’s electricity. When computer scientists dissect the massive rivers of traffic flowing through it, they cannot account for the source of all the bits. Every now and then a bit is transmitted incorrectly, and while most of those mutations can be attributed to identifiable causes such as hacking, machine error, or line damage, the researchers are left with a few percent that somehow changed themselves.

What Kelly is getting at is that the technium does not necessarily only communicate through human-created interactions. There are moments when the technium takes on a life of its own and oversteps the human hand. The technium has become a force of its own, evolving and communicating without us. So now it comes down to who is in charge of whom? Has our ability to control the technium now been
surpassed by the intelligence of the entity itself?

The answer according to Kevin Kelly is yes. We are at a tipping point, where the technium’s ability to alter us has superseded our ability alter it.20

Tying all this back into the objects we value, think about the most used object we carry with us today. For most of us it is the mobile phone, now the smart phone. The mobile phone has the ability to connect us to people and to electronic media. Over the last decade the mobile phone has evolved into an attachment valued in our society. Initially, the cell phone provided the ability to reach people on the go. Landlines were limiting because you had to be at home. With the mobile phone, we are quickly able to reach people on the go anywhere within reception areas in the network.

The mobile phone evolved from calls only, to calls and texts – then from calls and texts to data and email and games. “The biggest changes with computing and the Internet took place when people could take the web with them rather than having to go somewhere to use it.”24 With each increase in technological capability, the platform of the phone expanded, and through this expansion, the mobile phone evolved from an adaptation of extended technology into a communicable piece of the technium. Today, we have an expectation for technology, and we do not find the value in the phone’s ability to make calls only, or send texts only, or only download email. We find value in the phone’s ability to become malleable through software and skins. To perform ‘tasks’ we can now download certain apps to customize the phone’s platform. However, what drives platform development is not only the needs of the users, but also the information flow of the technium.

What Society Wants

To better understand the ever-growing needs and demands of today’s techno-consumer, we need to understand the consumer through history. Throughout the millennia, the number of things/objects each individual owns has increased exponentially together with the technological complexity of these things. According to Kevin Kelley, each adult possesses on average about 6,000 varieties of things, 10,000 items if multiples are counted, amassing the one trillion objects manufactured every year. This is compared to the 40 to 75 objects our ancestors
owned in Colonial America.\textsuperscript{25}

We have shifted from a society of necessity to a culture heavily dependent on personalization and over-indulgence. Our values have shifted, and we no longer look for just function when choosing personal items. Today we purchase globally branded items, which we may or may not need, that provide us with a sense of social acceptance.\textsuperscript{26} Because our things are now products of global mass production, the sense of humanity and personalization has been removed from the objects we possess. Today, we do not own products but social experiences and social connections through technology.

In the Colonial era, our things were handcrafted. Each object owned was handmade by a craftsperson who specialized in making a limited range of things. A tanner made leather goods, a blacksmith made iron objects, a goldsmith made highly-valued objects from gold. Today, anyone, qualified or not, can have an idea and bring that idea to fruition. As a result of globalization, anyone anywhere with a modem and a computer can order, produce, and market ideas.

Trading goods and services has been a tradition since the onset of time. It has only been since the onset of globalization, unfettered worldwide access (within the confines of democracy) has become exceedingly simple and in good time. The Vikings, the Silk Road, the spice trade, the Boston Tea Party, the East India Company, we can go on and on naming examples of trade and trade companies through history.

It has been, however, in the more recent centuries that the business of imports and exports began to drive nations’ economies. Countries have moved away from homegrown and towards import/exports due to the costs of production. According to the World Trade Organization (WTO) in 2010, the United States was again the world’s top exporter of merchandise and commercial services. Total exports for the U.S. reached $1.795 trillion, followed by China with $1.750 trillion, and then Germany with $1.5 trillion\textsuperscript{27} (Appendix 2.1). In recent years Germany has managed to break through the 50-year streak of the United States and usurp the title as world’s largest exporter. China has recently moved from the seventh largest exporter in 2000, to the third largest in 2005, and finally to the largest in 2008, supplanting both the United States and Germany\textsuperscript{28} (Appendix 2.2).
Some blame the industrial revolution for today’s overabundant production, consumption and environmental decay, “stating that such enhanced production capabilities were beyond our control and was like giving a Ferrari to a four year old.” However, with the impending decline of the consumption driven economy and culture, driven by the 2008 economic crisis, this could be an emergence of a “new design space” — a paradigm shift in which we co-evolve brands with people, instead of just designing them for consumers.

Today’s users are consumniheroes. They decide how much they want and what that format will be. They want access to completely unfettered information in any quantity and format convenient at that exact moment. The first example of technology affecting the proliferation of information began with the Gutenberg Bible. When Gutenberg published his copy of the printed Bible, his goal was not innovation but rather production speed. The Bible was 1,286 pages and so large, it could only be read when one was standing at a lectern or sitting at a table with a reading stand.

In 1502, Aldus Manutius began printing smaller, more portable books “that did not require a lectern or reading stand, or cause the reader’s arms to ache from holding them.” Before the printing press, scribes painstakingly handwrote the majority of the books in existence. It is estimated that prior to Gutenberg there were only about thirty thousand books in all of Europe. Less than fifty years later, there were an estimated ten to twelve million. Manutius, using Gutenberg’s technology, created the mobile phone of books, improving upon the new technology idea of a mass communication device, but one still fixed in space, at the lectern or reading stand. He came up with the idea of smaller more mobile books that could fit easily into a large coat pocket and be read anywhere. There was a huge expansion of global knowledge of secular texts, Roman, Greek, and Islamic, as well as a shift from big printed Bibles, which mostly Protestant clergy studied at their reading stands and preached from their lecterns, to smaller Bibles for home study.

With the introduction of movable type, information began to run rampant. This new printing device began to produce material at an unfathomable speed, spreading ideas like wildfire. According to McCleery, political and religious leaders began to quiver in their boots. The information highway had opened, and there was no
turning back. People had access to new and varied ideas that spread without the Church’s help or approval. One such proponent, a Venetian judge, proclaimed, “the pen is a virgin, the printing press a whore.”

In the past you needed a pen and the ability to read and write to share your thoughts, opinions, and ideas. The clergy and nobility had controlled the conversation when they controlled the pen. The printing press, much like the Internet today, could not be controlled.

Consumers demand both access and convenience with today’s technology. The success behind any product finds its footing in authenticity. No matter how accessible technology is, Regina Bendix states within *In Search of Authenticity*, “Buyers view offerings that conform in both depiction and perception to their self-image…their perceived state of being, including aspects real, representational and aspirational…as authentic.”

Authenticity, more importantly the human touch, is a perceptual altruism that many successful technologies strive to find. Take, for example, the porn industry – a hot bed of innovation and envelope-pushing – an industry in which better storytelling often propels better experiences. This goes as far as performer-client relationships within the community, not in the sexual sense but in terms of connection and authenticity.

Niche pornography began in the late 1990s when sites began appearing all over the Web. Within these adult sites, actors and actresses began using message boards to connect with their fans and share the scenes they were going to shoot or their plans for later in the day. They began to engage in one-on-one conversations with customers and in doing so “created the bond many are trying to create today with social media websites such as Twitter and Facebook.” By going into these sites and sharing bits and pieces of themselves on the web, the actors and actresses added customizable content to the site as well as a dose of humanity to the experience.

Infusing its content with humanity, the porn industry was able to combat all the illegal downloading and keep a loyal following in this time of piracy. Pornography was able to find a niche of authenticity that was lost through hacking and infuse it with experiential connection to keep the consumer coming back. Essentially, the porn industry...
conformed perfectly to the rules of “Me” Economics. They provided a customizable option to the ‘make it mine’ mentality that allowed users to drive their own experience through interaction – their mixes, their choices and their selections.

So what does society really want? Balance and control. First and foremost there needs to be a balance within the blank canvas, a platform, where each person creates his own personalized journey to find a touch of humanity. The platform becomes a new design space. Interactive storytelling and meaning drive generative and open-ended platforms that are both less prescriptive and less controlled. It is the need for a personalized journey.

Generative design is a participatory design process in which the user is a critical participant in the journey to designing his or her own personalized space. Liz Sanders, a senior lecturer in the design department at Ohio State University, is a pioneer of this idea. She believes the success to generative design lies in the empowerment of everyday people through the generative tools they need. These tools cross the range of making, talking, and playing and include 2-D and 3-D collages, diaries, cards, games, props, improvisation, and acting.

However, all of these tools are used preceding the design process. The tools of generative design are not used experientially throughout the object’s existence, rather ahead of its conception. What if our goals evolved and we were not so focused on designing end states? Rather we work to build “scaffolds for experiencing” – bits and pieces of a larger message that together ladder up to a whole idea. Instead of generative design being used as precedent, we can incorporate its toolkit as the scaffolds for platform success.

Generative design as scaffolding will provide the tools necessary to create a personalized journey. Rather than the user designing ahead of time interpolating what consumers are going to want or need in the future, the consumer will have the option to customize a blank canvas as necessary throughout the life of the object. The consummivore will build his or her personal story through the scaffold, “relating to it more deeply and still piecing together a holistic idea.” The result will be an interstitial platform instead of a predetermined immutable object of specified use.
We, the consumnivores, do not find happiness in gadgets. Today, happiness is found through having control. Whether it is control of time, control of work, or control of content, user-driven media will be most successful when the user is actually given some semblance of choice as well as perceived choice of path. This provides us happiness.

What Objects Want

One should step back for a minute and begin with the initial personal possession that indicates class variance, jewelry. Jewelry has been around for tens of thousands of years and has been an indicator of not only taste and creativity but also social status and caste. The Blombos Cave, a calcarenite limestone cliff off of the Southern Cape coast in South Africa, has revealed quite possibly the oldest jewelry ever made, 75,000 year old snail shell beads. The presence of these beads, whether used as trade items, to convey group status, or to identify members or relationships within the group suggests that, “Everyone knew what it meant, just as today if you’re wearing Gucci sunglasses or a diamond tennis bracelet, there’s a message being put out.”

In ancient Rome, jewelry was used to denote status. Only certain individuals could wear rings of certain materials and gaudiness. In the same era, sumptuary laws went as far as to dictate which persons could wear what type of jewelry based on culture and rank. Sumptuary laws, according to Black’s Law Dictionary, are laws made for the purpose of restraining luxury or extravagance. Jewelry has almost always been recognized as luxurious – a form of adornment or luxury that only the most meritorious should be able to wear.

In modernity, the definition of jewelry has grown and expanded to become more liberal expressing less of a status caste and more a social expression. For example, today, the term jewelry not just includes rings, necklaces, and bracelets, but also various types of piercing and body art. The same way rings denoted class status in ancient Rome, today piercing and body art denote certain badges of courage or affiliation whether religious or social.

However, jewelry is static and its references are archaic. We need storytelling to find value in our objects. We need control. There are only so many types of necklaces and rings that can project who we are. Do you wear gold and silver
together? Is your jewelry clunky or simple? Are your stones large and gaudy or simple and elegant? Can you afford glitzy stones? The same way jewelry has evolved over the years from necklaces, to rings, to earrings, to watches, it is only part of the natural progression that there is another evolutionary step. That step is technology as the new jewelry.

To many, material possessions have superseded jewelry as signifiers of status. We now place technological newness as the sole indicator of meaning, which ensures product devaluing as soon as a newer model hits the shelves. Meanwhile, mainstream industrial design has become technocentric. That is to say that within today's product realm, contemporary technology is in many cases being shoved into archaic typologies.

As stated best by Donald Norman, “We are surrounded by objects of desire, not objects of use.” Objects need to evoke our desires so we interact with them and become enveloped by the initial hook. This is where design is key.

Design needs to be able to catch the user's eye. With technology being similar in most devices across the board, industrial design and branding become a hook. That is not to say we design with the Swiss Army Knife approach in mind – cramming as many functions into an object as possible. Often this method of design comes at the expense of usability in an attempt to engender meaning for various types of people. Rather, design needs to create a slow ascent, a lengthy queuing period – a time when the user can slowly ascend to the object's highest point. However, if the stimulation is not genuine, it will be cast off by the user as gadgetry.

On the flip side of this idea therein lies the same struggle with acceptance. In the same manner people are not accepting of gadgetry, technological change is equally as displeasing. When a new product or category is invented, it does not naturally fit into people's lives. Survival of new inventions requires gradual introduction. Even in the instances that new inventions provide superior solutions, the old formats linger because they are so deeply embedded into the culture of society. We have learned to live, work, and play in a certain way, so much so that change can only be adopted very slowly over time. That is not to say change is impossible. As the technium increases in inventive speed, via Moore's Law, people do become more willing
accept new technology because it is thrown at them at a much faster pace.

The cell phone was first invented in infant stages in 1960 and was called the Mobile Telephone system A (MTA). The MTA used a rotary dial for system transmission and was limited to in-car usage. Following a series of in-car mobile phone inventions over the next thirteen years, Motorola finally released the DynaTAC 8000X Advanced Mobile Phone System in 1983. This brick of a phone ran over a 1G network and kickstarted the mobile phone industry.

Throughout the 1990s mobile phones truly began to develop. Digital network systems went from Generation (G) 2 to 2.5G to 2.75G and cell phones developed from rectangle boxes with antennae to compact palm-fitting forms. In the early 2000s mobile phones took the next large leap. Digital networks moved to 3G and phones became ‘Razr’ thin. Then in June 2007, Apple released the iPhone and the cell phone world evolved forever – everything moved towards touch screen technology. Presently, in 2012 we are on the iPhone 4s, nearly every phone out there is touchscreen, and we are living with rumors and anticipation of Apple's release of iPhone 5.

If we examine the mobile phone evolution over the past twenty-nine years, 1983-2012, one thing becomes abundantly clear – Moore’s Law. It took nearly 100 years for us to move from the landline phone to the mobile phone and less than thirty years for us to move from mobile phones to compact computers aka smart phones. According to CTIA, the Wireless Association, in June 2011, 102.4 percent of the U.S. population has a mobile phone. (Wireless Penetration equals number of active units divided by the total U.S. and territorial population) Conversely in June 1996, only 14 percent of the population owned mobile phones, in June 2001 40 percent, and in June 2006 72.5 percent of the population owned mobile phones.51

However, the most telling facts as to mobile usage is not how many people own phones rather who the people are who use them. According to ComScore, in June 2011 nearly half (48.7 percent) of the smartphone users are between the ages of 25 and 44 with the largest demographic being the Generation X age group, ages 25 to 34, at 27.2 percent of market share. More interestingly, the Generation Y age group, ages 13-24, were not far behind Gen X at 23.8 percent of market share.52 (See chart below) What does this say for the smartphone industry’s future? With
51 percent of the market share for smartphones being under the age of 44, the younger generations will begin, if not already have started, to drive market trends.

According to the Diffusion Process, originally published by Joe Bohlen and George Beal in 1957 and since evolved into the “innovation adoption lifecycle,” 68 percent of people adopt technology as part of the early to late majority. The innovators and early adopters, on the other hand, only hold a small share of the market and are younger than average age and accept technology in its earlier phases of development.
If we take this idea of innovation adoption lifecycle and apply it to smartphones, interesting trends come to light. Returning to ComScore’s data on the mobile subscriber market share, in February 2012, more than 104 million people had smartphones. Of these 104 million users, 74.8 percent texted, 49.5 percent utilized a downloaded app, 49.2 percent browsed the Internet, 36.1 percent browsed a social networking or blogging site, 32.3 percent played a game, and 24.8 percent listened to music on their phones. All of these numbers have increased anywhere from two to five percentage points since November 2011. The earliest available data on the smartphone markets stems from September 2009. If the usage data is compared from September 2009 to February 2012, one thing becomes apparent; people no longer use their phones for just talking and texting.

Let’s break down all of these statistics and numbers into their most basic form – data usage. Data is used to power games, browsing, apps, anything that comes through the network. According to Nielsen, a global leader in measurement and information, teens alone have more than tripled the data consumption in the past year while still maintaining their reign as the leading message senders. “In the third quarter of 2011, teenagers, age 13-17, used an average of 320 MB of data per month on their phones, increasing 256 percent over last year and growing at a rate faster than any other age group. Much of this activity is driven by teen males, who took in 382 MB per month while females used 266 MB.” While messaging remains the centerpiece for teen behavior, other data-heavy activities include mobile internet, social networking, email, app downloads, and app usage. Teens are proving themselves to be not only the largest market share gainers, but also an age group to contend with when referring to trends in the smartphone market.
All of this market data goes proves one thing – options. Not only are people beginning to use one object for multiple purposes, but also they are beginning to rely on that one object for much of their satisfaction and entertainment. Furthermore, this trend is not mutually exclusive to only smartphones. Smartphones are easy topics for discussion because they are already inclusive of the key component of this argument – platforms. Platforms create possibility. Platforms are becoming the hook – your pictures, your music, your books, your email, your phone, your apps, and your messages. Platforms provide the opportunity for people to project and be who they are and display what they find valuable all in one space.

We are moving away from objects of transcendence in a material state and towards the immaterial. We now find the majority of our value not in the technology of the object itself, but in the experiences and scaffolding affordances it can provide. The software, the design, the media projects, these are all immaterial. The technium is driving a compression of highly refined structures and it is the most immaterial process yet unleashed. The technium is transforming, and we are running to keep up. The objects we design are merely subsets of an already predetermined momentum. The techno-gadgets of today have become the medium for technium expression. It is in the ability of the technium to stimulate our vital responses and allows us to project our personality into it that affords a perceived acquired mastery over time.

EVALUATION

Case Study: Apple vs. Google vs. Research in Motion (RIM)

At this moment within the technium, the majority of us have figured out what phone brand we prefer or which platform we like best. Most of these reasons can be
attributed to topics discussed prior – status, aesthetics, technology, and fluidity. However, if the technology, object, and societal concerns are broken down into the three most competitive smartphone platform markets today, Apple, Google, and RIM, what would we find? There must be a reason that RIM has been slowly losing market share while Google is growing in leaps and bounds.

Since the mainstreaming of smartphone usage throughout the United States and the world, there have been an ample amount of competing platforms and companies from which to choose phones and service. This case study will not focus on the service provider or the phone brands such as Samsung, Nokia, LG, or Blackberry, rather the operating service used within – the platform. Through an in depth evaluation of selected platform scaffolding an understanding will be reached as to what drives the success and failure of certain platform designs.

Another primary element of this case study is an evaluation of age to market share. Smartphones have only become prolific in the last decade or so and it is the Generation Y purchase group (25-34 or thereabout) that owns the largest share of smartphones thus driving market trends. Understanding this generation’s wants and/or needs can be key in discovering what precisely drives platform successes.

The Stats

According to comScore, a research firm, in today’s smartphone market there are three over-arching companies that command the majority of the platform market share; Google, Apple, and RIM followed respectively at a distance by Microsoft and Symbian. Conversely, one-year prior to 2012 their rankings were slightly different; Google, RIM, and Apple followed at a distance by Microsoft and Palm (Figure 10). What becomes quickly evident through the analysis of this chart is that Google is quickly eating away at the market share of RIM and Microsoft.

At one time, RIM commanded half of the US Smartphone Market. According to International Data Corporation (IDC), in 2008 the company commanded a sizeable 46 percent of smartphone market share. By 2009, RIM was pegged as one of the fastest-growing companies in the world and commanded an even larger share of the world smartphone market landing somewhere around 56 percent. However,
by 2011 markets had changed. RIM had weakened under the popularity of other smartphone brands and had dropped to a mere 12 percent of market share.\textsuperscript{60} This year alone, shares have fallen sharply, nearly 75 percent, as smartphone buyers are increasingly choosing Apple and Android over BlackBerry/RIM.\textsuperscript{61}

Looking back over the market for the past twenty months, it becomes abundantly clear that the move from mobile phones to smartphones has been gradual, a growth rate of about 1 percent every month (Appendix 2.3).

However, there are a few key elements to take away from Figures 10/11 above when referencing the smartphone industry. First and foremost, it is interesting to notice that Apple’s market share was fairly consistent throughout 2010 hovering just around 24 percent. When the iPhone 4 was released onto the Verizon and Sprint networks, in February of 2011, the market began to pick up for Apple and grow to the nearly 30 percent they hold in 2012. The same can be linked to other iPhone releases, which typically happen in June and October.

The second piece of information to take away from Figures 10/11 is Google’s rapid growth concurrent with the demise of Microsoft, Symbian, and Palm. The first Google-run operating system, Android, was released in October 2008, however Google did not begin quickly amassing market share until its launch of the Nexus One in January 2010.\textsuperscript{62} The Nexus One was Google’s iPhone – its software, its design, its control. From that moment on there was no turning back and Google took off and has since grown to the nearly 49 percent of total smartphone market share as we enter 2012. Figure 12 below graphically depicts the market share changes amongst the six giants in the smartphone industry.
From this data we can surmise only one thing – there is something that Apple and Google are doing right and something that RIM is doing very, very wrong. What did RIM do that was so detrimental? How in 20 months did they go from commanding nearly half the market to barely holding on at 6 percent?

Crack is Whack

The crackberry. Everyone had one – well everyone who was anyone had one. People would walk the sidewalks in a dazed stupor barely stopping for a moment to look up to cross a street or round a corner. Americans seemed to be in a haze of emails and Blackberry Messenger, or BBM. Thumbs quickly moving across the world’s tiniest keyboard to type away some uber important message that could not wait one second more while perilously traversing a busy intersection during weekday rush hour. We knew a crackberry feign when we saw one. What had RIM done to us?

Research in Motion (RIM) was established in Waterloo, Ontario, Canada in 1984. However, RIM did not truly become a player in the smartphone market until its Blackberry 957 released in 2000, which ultimately extinguished the pager. It is an interesting concept, extinguishing – a concept Sam Grobart delves into in his article, “The BlackBerry, Trying to Avoid the Hall of Fallen Giants.” Grobart points out that, as he sees it in today’s market RIM has only three ways forward – a triumphant comeback, a gradual decline, or oblivion.
The first, a triumphant comeback, can be possible. RIM upgraded its PlayBook operating system in February of 2012 to finally have options like email amongst other things, a feature the first PlayBook somehow managed to lack, as well as releasing the BlackBerry OS 10, which has already been delayed until later this year. The second option, a gradual decline, would involve Apple, Google and other giants taking over its market shares until only a small sliver of government sector and corporate customers remain attached due to messaging and security features. Then there is the third and final option – oblivion. RIM could very well follow in the footsteps of previous fallen titans and become nothing more than a flitted memory somewhere at the beginning of early 2000s e-media takeoff. The same way BlackBerry eliminated the pager, Apple and the iPod eliminated the Sony Walkman (1979-2010), Apple and the iPhone eliminated the Palm Pilot (1997-2007), any sort of camera-ready mobile phone eliminated the Polaroid instant cameras (1948-2008), and finally Atari, who ran itself belly up through plain and simple conceitedness (1977-1984) – a path RIM is close to following itself.64

Returning to the original BlackBerry 957, the first BlackBerry vertically oriented as we know it today, the concept was simple, email on the go. Unlike any other pagers before it, the BlackBerry 957 had Wi-fi capabilities and a unique push system for email delivery much like the push messaging our modern technology knows today.65 The 957 could also browse the web, sync with both Microsoft and Linux operating systems, and it was pre-installed with an address book, calendar, alarm clock, memo pad, and tasks.66 According to reviews, the largest complaint was there were few third-party apps, a complaint that 10 years later is not going to change. The BlackBerry 957 was the last pager. It was the last system that separated email and mobile phones.

As models progressed and technology improved, other features became standard on BlackBerry phones – integrated phone (email and talking), BBM pin messaging (between BlackBerry’s only), color screens, Bluetooth, speakerphone, integrated two-way radio, GPS, trackball interface, media player, polyphonic ringtones, stereo-audio jack, etc. The list could keep going, but keep in mind, these phones developed primarily between 2002 and today. The technium began accelerating and, initially, RIM was in the race and keeping up.

To give an idea of just how many BlackBerry phones there have been in the past
ten years, 2002-2012, diagramed in Figure 13 are the names, dates, and images of RIM's form evolution. Model number changes have been excluded. If all model numbers are counted, or attempted, there have been approximately 82 phone models. It is a boggle of BlackBerrys.

According to Ian Austin, a technology writer at The New York Times, RIM has no idea how many models it has on the market today. There have been 37 phone models alone introduced since 2007. Current phones flip, slide, have compact keyboards, have touchscreens, have touch screens and keyboards; some BlackBerrys are high-end and others are low-end. In comparison, when you page through BlackBerry.com there are 21 phones alone to choose from. It is a wonder the consumer is confused. RIM has spread itself entirely too thin.

Kevin Michaluk, the editor in chief of Crackberry.com, writes an editorial series called “If I Ran RIM,” and made an excellent point in his November 2011 column. Michaluk
states, there have been 37 phone models alone introduced since 2007. In the time that RIM has spent developing 101 models of various phone types, the company could have been putting its techno-powers to work implementing an app store and app options on each of its devices. In the past, Chief Executive Jim Balsille has been quoted saying there is no need to make the Web an app. Specifically, why do you need a YouTube app when you can go to YouTube.

In a world where Facebook, Twitter, LinkedIn and Pinterest rule the Internet, RIM is now paying for Balsille’s views and playing a game of catch-up. It was not until October 2008 that RIM announced its first plans to build an app store, (Apple’s went live in July 2008) April 1, 2009 until RIM’s site went live, and February 1, 2011 until add-ons could be purchased within applications. Over the past two and half years the BlackBerry’s App World, has grown to have about 60,000 apps, over 2 billion downloads in 26 countries at a rate of 6 million downloads a day.

For a company that started behind the app curve, those are good enough numbers. However, when the competition is Apple with its tagline, “there’s an app for that, over 500,000 actually” competition is tough. It is interesting to note, however, that while researching the numbers of apps for both companies it was nearly impossible to find a reliable statistic for BlackBerry, a statistic definitely not on its website. As for Apple, a picture speaks a thousand words. Figure 14 above
is Page 1 of its app store. The difference, not only in quantity but also in swagger, is staggering.

According to Nick Bilton, mobile devices now account for 7 percent of the worldwide traffic on the web, and of all the mobile web traffic, RIM only accounts for 5 percent. The numbers are shocking. So what does this mean? RIM’s poor performance and lack of innovation has cost it their large initial customer base.

RIM stands somewhere between innovation and failure. Its tablet released last year was a bomb, its new BlackBerry 10 has already been delayed a few months, and the layoffs are beginning to accelerate. What did RIM do wrong? It refused to customize. When the market for individualization arrived, it chose to go with color and with function – aesthetics. However, the quantity of BlackBerry phones alone proves that sometimes too much choice is a bad thing. This is case in point to what Jonathan Chapman spoke about in Emotionally Durable Design. If the stimulation is not genuine, it will be cast off as gadgetry by the user. The BlackBerry did not evolve with its user’s needs of on demand connectivity. It stayed the same while other companies like Google and Apple swept in and ran with the market. The crackberry is no longer the most sought after smartphone in its field. Crack is now whack.

If you don’t have an iPhone, well, you don’t have an iPhone

“Feeling is more important than being.” This idea has been proven true time and time again in the detergent industry – feeling clean is more important than being clean. The same goes for the German auto industry. German automakers believe great engineering matters more than anything else. Begrudgingly, they began adding cup holders to their finely crafted cars when commuter-minded Americans showed, through purchase power, that there is more to buying a car than meets the eye.

This idea can be applied to the smartphone industry in a similar manner. Prior to the iPhone, companies believed that the more options and buttons a phone had, the more people would want it. Apple showed them. Apple, with their first iPhone, limited the options and had only one button.

Here is a company that charges 25 percent more for its technology, has
significantly limited software options for its operating systems, fewer peripherals, and sometimes slower machines, but people still buy Apple products. And, according to Simon Sinek, people just do not buy them – they love them. A feeling that comes straight from the heart. According to Sinek, if you ask a person why he buys an Apple he responds with the following rationalizations, “It’s the user interface. It’s the simplicity. It’s the design. It’s the high quality. They’re the best computers. I’m a creative person.” In the end, the reality is that the buyers’ loyalty and their decisions are deeply personal. People cannot care less about Apple. Like any other company if Apple takes a misstep, like RIM, another company will swoop in and take its place. What Apple does do, however, is allow the buyer a large amount of self-absorbed narcissism – it is all about him.

Apple, therefore, characteristically provides a perfect level of authenticity. What does authenticity mean? It means that everything you say, do, print, publish, make, etc., you must actually stand behind. It means the management must mean it and it means the employees must mean it, too. More importantly where Apple truly stands alone in this market is with the buyer. Not only do the management, the late Steve Jobs, and the employees rave about Apple, but its loyal band of purchasers does, too. Apple brings the buyers into the fold and provides a new layer of authenticity that RIM and Google most definitely do not. Apple has built a relationship with the buyer – the buyer believes in the product and turns around and exudes that developed passion to the rest of the world. Not only does Apple market to buyers, but buyers market to each other.

Authenticity is not the key to success, but it is the driver of Horcrux based attachments. Over the years Apple has stayed true to itself. A few questions might arise as to Apple’s market share and Google’s control, as Apple continuously hovers around 25 percent. However, a key to remember is that Android, Google’s software, does not limit its software to a single Google designed device. Where Apple breeds loyalty through overarching control, Android is open source in hardware and software and allows anyone to make an app and nearly any phone brand to use its software.

According to Google, as of right now there are 108 Android based phones on the market. Droid, LG, Motorola, Nokia, T-Mobile, Samsung, Sony, Dell, HTC, and other more rare and random hardware developers all run Android software. There is no
consistency among devices except to say all gamuts, niches, wants, needs, and more are covered. The difference between RIM and Google’s effort to have 101 different phones returns again to authenticity – Google knows who it is. Google says it best through its mission statement, “Google’s mission is to organize the world’s information and make it universally accessible and useful.” This is as true in its Android phone software as it is with search engines and ever-growing arsenal of products. The choices Android affords allow anyone to find a phone he likes and use it however he pleases. Google may not retain Apple-esque loyalty, but they have found a loyalty in passing along unfettered information.

**And the Winner is?**

Google and Apple provide malleable platforms for customized uses. It is safe to say at this point, RIM has missed the boat and is now playing a continuous game of catch-up. The successes of both platforms can be linked directly to technology, society, and objects. To begin, the iPhone and the Android envelop the convergence culture. Both platforms provide a level of technological malleability that afford any user personalized functionality. This is what technology wants. Technology wants the affordances of malleability. For the first time ever we are able to hold everything near and dear to our hearts in one device. We are no longer relying on 10 different devices to connect us within our daily lives. We can FaceTime on the iPhone, check our email, call, group chat, group call, share screens, access servers, etc.

Because all of these functions exist in one device, the platform can take on a mind of its own. The ability of the platform to keep up with information is what drives the technology forward. It is the technium’s ability to keep up, or not, that pushes the platform forward. The smartphone industry has become a system of collective intelligence. Because we are all so intimately linked, it is not just my needs or your needs that drive the smart device in our hands. All of our information is stored and shared as one common interconnected system.

As was stated earlier Technology + Culture = Society. However, this problem statement needs revised. Society has become an amiable mesh of both technology and culture, but society has limits – human limits. It is more reasonable to say the equation should equal the technium. Because in the end what we are talking about is not a thing but a tendency, limited not by people but by matter and energy.

Society however is an integral part to smartphone platform success. Our indulgence
or hypersaturation of physicality has led to the lack of personalization of our ‘things’ and because our ‘things’ are now products of global mass production, the sense of humanity has been removed from the object. This is not true with smartphone platforms. Although the phones are machine made and the operating systems are available globally, it is the malleable nature of the phone’s platform that affords us humanity. Our smartphone is our link to the world. Its ability to do exactly as each individual needs or wants ties us to our lives. The smartphone has almost become a living, breathing entity. It is for many of Gen Y status – the pulse of daily existence. Smartphones have brought information to the palm of our hands any way we want it in the same manner as Gutenberg. This is the new technium. The focus is not solely on technology, or apps, or functionality, or communication. The focus is on how all of these individual parts work together to create a newer better whole.

The object itself, it is a status thing – and Gen Y understands that perfectly. We are passionate about our things not only because of their malleable value, but we are also passionate about what they say. Apple’s ‘Get a Mac’ campaign capitalized on that understanding perfectly. You know the commercials – a dashing, young, hip Apply guy versus a bumbling, old, straight-edge PC guy. Apple could keep up with the Joneses and Generation Y while PC inevitability became flustered and flopped. In reality, Apple has donned itself the new cool jewelry that everyone wants to have and show-off.

In the end, it is the reliability of the technology that pushes the bar, but more importantly it is what the technology can do for each individual. What it comes down to is how the technology functions within the object to fulfill the users needs. The more a smartphone can do for one individual, the more they will authenticate it, love it, and make it mine (theirs)!

**CONCLUSION**

So What?

In looking towards the future, an insurmountable amount of predictions can made as to where the technium will lead. However, as seen through some very real world examples, the future of our technium is closer than we could ever imagine. As predicting the future is an elusive skill, and having an endless array of possibilities
as to where the technium will lead, it is important to keep one key factor in mind, malleability – the merging of technology and humanity across time. It is in the fluidity of design and technology that the future will grow – Generation Y has proved just that.

The future is not about real estate, rather access. Generation Y does not want more things, or more space, or even more functions. Generation Y wants unfettered information. This information can come in the form of technological developments or information – WikiLeaks. It is in this access, this information, that Generation Y will find meaning.

Adding to a larger collection is no longer valid. The days of action figures and Barbie dolls are behind us. If we survey the room of a child today, Generation Z, chances are there will be no stamp collection, or coin collection, or china doll set. Kids today are online. You see children on the street at the ripe old age of nine chatting away, surfing the web, and/or texting a friend on their cellphone. The landscape has changed. Our world is becoming interstitial. It is not about things, it is about information.

Therefore, our meaning has shifted. Generation Y is choosing bikes, small business, and self-employment over luxury cars, corporations, and the machine. The social landscape is in flux. Tomorrow will not be about what, rather how. We are moving from quantifiable to immeasurable. How long will my battery last? How far does this Wi-Fi go? How many songs, movies, books, apps, and downloads does this memory get me? It is no longer about things because things have a limit. It is now about the immaterial – the interstitial. As our world becomes digitized, the things we find meaningful do as well. The objects we use will need to augment the interstitial not enhance the reality.

So where does this leave us today? In an April 21st 2012 *Economist* article, Ian Whadcock predicts the onset of a third industrial revolution; social manufacturing. Whadcock goes on to say that through 3D printing and digitisation within the manufacturing processes, our production will become more individualized and economical in smaller numbers. The operator will be eliminated and the robot will make nearly anything we can dream possible.
The adaptability of media technology and their platforms have become so prolific in our lives, that reliquary attachments have become inevitable. Technology designs not only reflect this shift but are beginning to supersede accepted ideas of possible. We may soon be turning to technology, quite possibly a 3D printer, to meet our own customized needs. Rather than using the Apple.com to build our own MacBook Pro, we will use a 3D printer in the comfort of our own home to not only design but build our new computer.

Finally, returning to Harry Potter and the ties to Gen Y; why exactly has Potter evolved into such a cultural sensation and just why is this so important? Because Harry Potter is the mirror of our progressing society. The same way reading one of J. K. Rowling’s novels put us into an exhilarating world of imaginative possibility, these devices put us into another state of mind as well. The world we are creating through technology is pushing our work, our collections, our interactions, and our friendships interstitial. As time progresses our reality is transforming and becoming digitized in a world we can no longer touch.

J. K. Rowling wrote in one of her Harry Potter books, “Never trust anything that can think for itself if you can’t see where it keeps its brain.” Well, take a look around. In our society of growing interstitial intelligence, the stranger next to you is as much, or even more, a part of your technium, or network, than any actual acquaintance you may have.
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APPENDIX

1.0 Definitions

App – A downloadable program used for, but not limited to, gaming, shopping, banking, and social networking. Typically denoted by an icon.

Chairness – The essence of an objects characteristics that provide for its identification.

Consumnivore – Collectively rummaging, consuming, distributing, and regurgitating, the new consumer now digests content in byte-size, snack-size, or full-meal packages.

E-media – Electronic based content

Generation X – Born after the post World War 2 baby-boom generally between the early 1960s through the early 1980s.

Generation Y – Also known as the Millenial Generation, this generation was born between the early 1980s and late 1990s.

Generation Z – Born from 2000 forward, this generation has no memory of living without computers, internet, texting or mobile phones.

Horcrux – An object a person has hidden a part of their soul within, as coined by author J. K. Rowling.

Millenial Generation – See Generation X

Moore’s Law – A technology based rule of thumb that states processing speed, memory capacity, sensors, and pixel ability double in ability and halve in size about every 18 months.

Platform – An underlying system to which change can be applied, in some but not all cases in reference of digital media, and then customized according to the user.
Possibilianism – A position that emphasizes the exploration of new and unconsidered possibilities.

Rogers Bell Curve – The technology curve that describes the cycle of innovation and adoption based on when each group of users decides to welcome technology into their lives.

Scaffold – Pieces of a larger directive that build together to provide support and framework for a more complex idea.

Smartphone – Utilizing the combined functionality of a Personal Digital Assistant (PDA) and a mobile phone, a smartphone further combines the functionality of an mp3, camera, GPS, and gaming all in one handheld device.

Technium – The merging of technology and humanity across time.

Technology – A systematic material expression of technical knowledge through objects, hardware, and tools.

Technocentric – Pertaining to the ability to express modern technology.
2.0 Charts

2.1 Trade Stats: Who's the World's Largest Exporter?

![2010 World Trade Chart](image)

### 2010 World Trade

**Billions of U.S. dollars.**

#### EXPORTS

<table>
<thead>
<tr>
<th>Country</th>
<th>Merchandise</th>
<th>% of world total</th>
<th>Commercial Services</th>
<th>% of world total</th>
<th>Total Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>1,280</td>
<td>8%</td>
<td>515</td>
<td>14%</td>
<td>1,795</td>
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<tr>
<td>China</td>
<td>1,580</td>
<td>10%</td>
<td>170</td>
<td>5%</td>
<td>1,750</td>
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<tr>
<td>Germany</td>
<td>1,270</td>
<td>8%</td>
<td>230</td>
<td>6%</td>
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#### IMPORTS

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<tr>
<th>Country</th>
<th>Merchandise</th>
<th>% of world total</th>
<th>Commercial Services</th>
<th>% of world total</th>
<th>Total Imports</th>
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<td>United States</td>
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<td>1,070</td>
<td>7%</td>
<td>256</td>
<td>7%</td>
<td>1,326</td>
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</table>

Source: WTO
## 2.2 The Geography of Transport Systems, 2010

![Graph showing transportation systems]

## 2.3 Monthly Smartphone Platform User Averages

### Smartphone Platforms and Demos

**3 Month Averages Ending Jun-2010 to Dec-2011**

**Source:** comScore MobiLens

**Audience:** U.S. Mobile Subscribers Ages 13+

<table>
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<tbody>
<tr>
<td><strong>Smartphone (% of Total Mobile Audience)</strong></td>
<td>21.9</td>
<td>22.8</td>
<td>23.8</td>
<td>25.1</td>
<td>26.0</td>
<td>26.3</td>
<td>27.0</td>
<td>28.2</td>
<td>29.7</td>
<td>30.9</td>
<td>31.8</td>
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<td>2.1</td>
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<td><strong>Palm</strong></td>
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<table>
<thead>
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<th>3 Month Averages Ending Dec-2011</th>
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<tbody>
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