Web-Enabled Technologies and Individual User Agency

A Thesis Presented in Partial Fulfillment of the Requirements for the Degree of Master of Fine Arts with a Major in Art in the College of Graduate Studies University of Idaho

by

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Authorization to Submit Thesis

This thesis of Poukong Colin Manikoth, submitted for the degree of Master of Fine Arts with a Major in Art and titled "The Exchange of Individual Agency for: User Convenience, Technological Improvements, and Governing Policies", has been reviewed in final form. Permission, as indicated by the signatures and dates below, is now granted to submit final copies to the College of Graduate Studies for approval.

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Abstract

A plethora of web-enabled technologies have become essential for users wanting to participate in the Information Age. However, this participation puts the agency of individual user into question. Firstly, utilizing Martin Heidegger's concepts of *authenticity*, the spectrum of individual agency can be explored via a memetic process of: copying the original, transforming it, and a recombination of both. Secondly, the technology itself conceals many layers of agency, the participants involved, and their motivations. By examining how web-enabled technologies are used; these layers become visible. Thirdly, these technologies are a prosthetic to augment incomplete lives. This prosthetic is examined in both digital and physical forms. The digital is examined as the design of the code, the content in the database, and the logic of algorithms. The physical prosthetic is the user interface to the technologies. Each new web-enabled product or service, promises technology even greater conveniences, community, and gained *authenticity*. This examination reminds users, to pause, and then consider their own role before willingly relinquishing more of their digital identities and individual agency.

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Dedication

To Amber, I am sorry you shared in all the lows (of which there were many) and in none of the highs (of which there were few). To my children, nothing is worth missing your early years and for that no apology will ever do.

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Chapter 1: Introduction

I will introduce how agency will be applied via an analogy of eating meat. I eat meat. I understand and have accepted something had to die to feed me. This consumption raises questions about the: marketing of the product, economic benefits, environmental impact, controlling companies, governmental regulations, and individual consumer beliefs. I continue to accept, and displace the guilt of consuming meat, by willingly letting someone else kill the animals I eat.

In The French Laundry Cookbook, renowned Chef Thomas Keller requested the restaurants rabbit purveyor teach him how to kill, skin, and eviscerate a rabbit. He states, "I had never done this, and figured if I was going to cook rabbit, I should know it from its live state through the slaughtering, skinning, and butchering, and then cooking." (Keller 205). The purveyor later brought twelve rabbits and quickly hit one over the head with a club, slit its throat, pinned it to a board, skinned it whole - and left. Keller was alone with the eleven remaining rabbits, and the realization of his request was not what he expected. He found it difficult killing his first rabbit. "It screamed. Rabbits scream and this one screamed loudly. Then it broke its leg trying to get away. It was terrible." (Keller 205). After the first, the remaining rabbits were killed quickly and from this experience he learned never to squander any meat ever again. As a chef of influence, he convinced other chefs to reduce the amount of waste through accidental overcooking, and to use more than only choice portions of the animal. By choosing to be to be a part of the butchering process, Keller was able to reevaluate his role, reconsider his feelings, and change his, and the behaviors of others. Chef Keller's experience is an analogy for modern consumption of information via many web-enabled technologies. This consumption raises questions about: the motivations of individual users, the role of technology, the technology itself, governing polices, the advocates and critics, and the systems used to deliver this information via the Internet.

I will frame individual agency not in a religious sense, or as defined as the will of God. I will discusses individual agency, and its relationship to the Internet. Alex Wright from *Cataloging the World: Paul Otlet and the Birth of the Information Age* states: "In the so-called metaphysical stage, societies tried to correct that balance by instituting concern for the individual and embracing a belief in inalienable human rights. Nonetheless, the power of the state safeguarded those rights on behalf of the people. Societies will progress to the scientific, or positive, level of development. Human knowledge will be set free from its old institutional constraints, and

people will at last begin to govern themselves" (Wright 58). The spectrum of self governing or entities with agency utilizing web-enabled technologies will be explored through three lenses.

The first will be to see my individual role in this process framed within Martin Heidegger's authenticity of being, and living life. Why do individuals want agency? If we have it, how much agency do we being life with? Whom do we receive or transfer agency to? The second lens will be to explore the role of web-enabled technologies in this transference of agency. How do web-enabled technologies aid in the transference? Whom benefits or is handicapped in this transfer? To explore Heidegger's *authenticity*, why do we want to transfer agency at all? The third lens for exploration will be of the idea that technology itself is a prosthetic. How can the prosthetic be physical, digital, and also cognitive? Does the prosthetic itself have agency? If so, how does the prosthetic receive and transfer agency itself? Like Keller, the objectives are to reevaluate my role and that of others within individual agency and web-enabled technologies.

Chapter 2: Authenticity

Philosopher Martin Heidegger's concept of *Dasein* or being-in-the-world from his book *Being and Time*, provides a perspective to explore the agency of individuals and the *authenticity* of their lives. To have *Dasein*, one must have an authentic way of living-life and recognize that life is fragile and finite. To have *authenticity*, you must also must embrace *the nothingness* accepting the natural inevitability of death. The modern way of live has lost this connection to death and resultantly nature. As a result, nature is seen as a standing reserve of resources to provide usefulness to humans (Ihde 119). This mindset of constant consumption - catalyzed by many technologies - does not afford time to reevaluate how one could live *authentically*. There is little distinction between needing technology to live, versus wanting to have technology, to live a certain way. What defines an *authentic* way of living is explored later in my work *Nailed It*!.

From the onset birth, we are thrusted into a world, *geworfenheit* or the *thrownness*, and beholden to the: obligations and expectations of each other. We live under the obligations of our societal structures. We strive in the present to meet societal expectations for the future. To meet the requirements of society, we consume information via the *Das Gerede* or the endless chatter, from multiple sources promising a way to alleviate the burden we are born into. It hides the nature of being, by trying to give meaning to our endless pursuits. We forget to live for ourselves, and are consumed by living for someone or something else. We are giving agency to a definition of life and meaning created by others. With all of these requirements to live-up-to, how we can we begin to have an *authentic* to life-to-for? Our position in humanity is uncertain, but the *the nothing* of death is definitive. There is a common unity in the *Being*, and also in the nothingness.

Using Heidegger's concepts of *authenticity* and the *throwness*, we can question if individuals begin with any agency at all. The lack of agency creates a dependance on others to: help define who we are, what we need, and how we should live. "The common aim must be to expand resources and improve the quality of life for as many people as heedless population growth forces upon Earth, and do it with minimal prosthetic dependence" (Wilson 317). This idea of the prosthetic is later addressed in my work of the *Cinder Carousel* and *The Water UI*. Heidegger demands we start to live for ourselves and to not ignore the inevitability of *the nothing*. Many technologies in our daily lives obscure the focus on our individual place in existence. Endless pursuits catalyzed by the many technologies, and now the many speed of light web-enabled technologies, amplifying the *Das Gerede*. "Such entities are not thereby objects for the World; they are simply what gets used, what gets produced, and so forth" (Idhe 44). Society constructs burdens that do exist as nature. When technological solutions falter, we continue to look for different solutions suggested by the *Das Gerde*. We treat the symptoms of inauthenticity and not cure the cause of it. Humanity has forgotten about *Dasein*, and is not living authentically, but continues to strive to.

Although Heidegger often romanticized nature and the pre-technological age; he also believed that it was not possible for modern humanity to be entirely without technology. Heidegger was "no eco-warrior and no luddite" but did want humanity to "inhabit it differently" (Wheeler). To being to think about *authenticity* differently, what is "harboring and a concealing" (Heidegger, Martin, and William Lovitt 25) the agency of the technology, must be revealed. We enter the *throwness* of the world and behave as expected, as defined by the system and those before us. Our lives are created via a meme, an element of a culture or system of behavior passed on from one individual to another by non-genetic means, especially imitation. A memetic life harbors and conceals genuine motivations and individual agency. The layers of meme must be cleared in order to uncover "the veil that hides the essential occurrence of all truth and lets the veil appear as what veils" (Heidegger, Martin, and William Lovitt 25). Therefore, the meme itself that veils, and its modern interpretation the Internet Meme, must be revealed and discussed.

The meme can be used as mechanism to explore the process of how individual agency can be gained. Evolutionary biologist, Richard Dawkins coined the term meme in his 1976 book *The Selfish Gene* to described a process of evolution and genetics. It has been adopted by Internet culture and in Dawkin's words, an "Internet meme is a hijacking of the original idea. Instead of mutating by random change and spreading by a form of Darwinian selection, internet memes are altered deliberately by human creativity" (Solon). The process begins by a direct copy either implicitly via the *throwness* of the world with little agency, or chosen explicitly by the individual with more agency. Once the meme template is established, it can be transformed by the individual in his or her own way guided by their own motivations. Lastly the original and the transformed are combined into something not new, but different. This remixed resulted of creating new media created from old media uses three techniques: copy, transform and combine (Ferguson); a combinatorially creative process by connected ideas together.

Artist Lauren Kaelin applies a this process to her work *Benjameme*. Kaelin transforms popular Internet memes into oil paintings. The physical act and display of painting creates a different atmosphere that did not exist digitally. *Benjameme* is named for German art theorist

Walter Benjamin, whose 1936 essay "The Work of Art in the Age of Mechanical Reproduction" analyzed the democratization (process of copying) and reproducibility (process of transforming) of art (process of combining). The new combination or remixed artwork is has different form of appreciation, creates an opportunity to re-contextualize the work outside of its origin, and revisit the amount of authenticity. This questioning of Heidegger's authenticity is echoed by Walter Benjamin who questioned the value of the original, the thing to-be-copied-and-transformed, stating "by means of reproduction it extracts the sameness even from what is unique" (Benjamin, Levin, and Jephcott 24). Like Kaelin, I too am exploring questioning of authenticity via memes, and the experiences of the viewer.



Figure 1, Lauren Kaelin, Benjameme, 16x20 oil painting, 2007

I continue Heidegger's questioning of living authentically in my own work *Nailed It*!, a series of eight prints using the Internet Meme template, continues the questioning of my own authenticity in *Nailed It*! #3 and also my identity in *Nailed It*! #8. I am assimilated into American culture with little direct connection to my Laotian heritage. My only connection being my parents. The source being culture of Laos is transformed by my Father and is the template (meme) I am to live up to. My Father passed onto me a transformed life, however it does not remove what was used to transform it - the meme itself - as Heidegger asserts.

I am borrowing a visual template of the Internet meme. There are many types of memes and *Nailed It*! is a remixing three common themes: First World Problems, Fail, and Nailed It. *First World Problems* memes make fun of the daily mundane struggles of the first world, e.g. "My Internet is slow". *Fail* memes shows the absurdity of mistakes people make in pursuing our collective aspirations, e.g. "I sent that angry email to wrong person". *Nailed It*! memes highlight incomplete attempts at reaching an almost unattainable standard of the first world success, e.g. "I failed at recreating those recipes on TV". All three themes indicate a potential lack of agency in our own decision making.

Internet memes are intended to be humorous and/or satirical. My goal was to create feelings of guilt if you laughed, then a pause to contemplate the differences First World and developing countries. Then potentially a realization of the shared-similarities of the two. I am subverting the humorous intentions of memes to show the technological divide, shared aspirations, societal expectations of the First World countries and developing nations.

Finally, by incorporating my own family pictures I hope to resolve the guilt of both, using found imagery I do not own and also exploitation of those pictured. The intention was to no longer illicit laughter, but have device to create discussion about the digital divides of developing countries and our shared: technological needs, personal aspirations, and lack of authenticity.



Figure 2, P. Colin Manikoth, Nailed It! #3, 11X17 inch prints, 2013-2015

My family immigrated to the United States for the promise of a better life. Late in my life, my Father revealed that the promise came from a radio message - a mass communication technology - that stated anyone in Laos, who could make it to a refugee camp, may have an opportunity at coming to America. He believed there was no future in Laos for his family. He was not certain what was worst: the fear of an unknown future, or the certainty of punishment for being caught fleeing? We left in the middle of the night. My parents said goodbye to their families for very the last time. Our family of seven fled and along the way spending three nights in a Thai prison. We eventually landed in the Philippines then Olympia, Washington. The immigration from Laos spanned a few years; no one is absolutely certain of dates or length of times spent between refugee camps. To this day, my father has never once returned to visit his place of birth. He has no intentions to and in his own opinion; he "nailed it". My Father took agency and gave up our life Laos, in exchange for the *authenticity* promised by a *Das Gerde* technology.

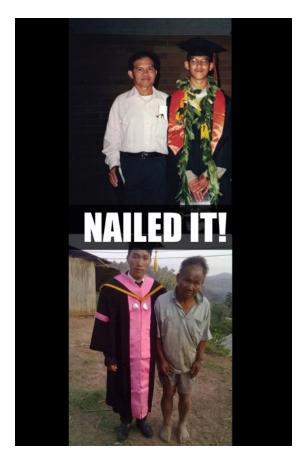


Figure 3, P. Colin Manikoth, Nailed It! #8, 11x17 inch prints, 2013-2015

Nailed It! #8 questions the world my father did not want for me in Laos and one I have adopted in America. This questioning leads to the definition of my own identity. In the image, my father and I are posing my High School graduation in 1998. Again, he did "nail it" and achieved his goals of giving his family a better life. Again, not by own choice or agency, but that of my Father, did we leave Laos for these opportunities in America. I would become a naturalized US citizen and given an Americanized name. "Colin" was co-opted as my middlename because many Laotions do not have formal middle names. Poukong, my first name was kept, but rarely used. After college, I was shocked to learn that even my last name is also not my own. Adopting "Manikoth" helped speed up the immigration process. No one is quite sure whom the original Manikoth was, but clearly it worked. I have always felt that I am from one world, and live in another. I understand it is from a privileged position from which I create these memes and want others to feel the same. In creating these memes, it helped me personally to connect the two worlds.

Nailed It! shows how Internet memes are deliberately altered and have the ability to be transmitted and transformed from person-to-person, like genetics. I have my Father's genetics, and he transmitted onto me, without my agency, a life he chose. Which I have deliberately altered, and with no attempt at accuracy or *authenticity* during this process of: copying what existed and was created by others, inserting my own agency and transforming the copy, and then recombining the two into something — different.

Chapter 3: Technology

Returning to Heidegger's warnings that we are living an *inauthentic* life filled the superficial chatter; I must first admit my own guilt in the creation of that chatter. My experiences working as a Web Producer at an advertising agency revealed a hidden guilt. I helped contribute to the noise of *Das Gerede*, to sell *Dasein* way of being, to those who wanted to live-up-to the expectations of web-enabled society.

Similar to a television producer, the job was to create web-delivered content to support multimedia (web, print, tv, radio) ad campaigns. Typically, the the majority of questions of an advertising campaign are answered by the defined objectives, e.g. sell to 18-24 year old males. However, advertising agencies are not opposed to buying information from third parties, or collecting their information by any means necessary, in order to have better answers via the data. Each new product or service the advertising agency sells, promises greater conveniences and community towards a more *authentic* life. In exchange, users willingly relinquish even more of own digital: data, location, and identity. The price is nothing - users expect everything to be free - however the costs are much higher. I made a career in this exchange of convenience for agency by: buying data, gathering data, and analyzing data, and then teaching others to do the same. The consumers' expectations are the products and services will be free-forever. In exchange, the ad agency - has an individual's agency - to collect and sell all the data needed. I have guilt in being the purveyor of user data, possibly as much as the rabbit supplier to Chef Thomas Keller.

The role of technology begins with people. "Humankind is the active agent of technological thinking, so humankind is not merely a passive element" (Wheeler). Advertising agencies convince consumers they are lacking an authenticity-of-life, and intentionality of living. Many modern technologies - both physical and digital products and services - are sold to augment the incomplete lives of consumers. This process of agency-transfer, from the client to the advertiser, provides an opportunity use Heidegger's *clearing*. Throughout this process, the *clearing* provides a way of Being in which things are revealed or "brought to presence within some opening that itself has structure" (Idhe Heidegger's Technologies: Postphenomenological Perspectives 30). The structure is the relationship of the consumer to advertising agency to client of the advertising agency. From this structure, we can address: the motivations of the consumers, the role of advertising agencies acting on behalf of their clients, and the intention of

the technologies employed. With the role of advertising agencies established to persuade consumers to purchase their clients' products; the role of the technology itself can be explored.

The role of the technology itself is framed in specific way via the method of *clearing* introduced. Not addressed are the historical definitions of technology or when did technology first occurr. Don Idhe suggests "material technologies seem to emerge in a philosophical interest and awareness" (Idhe 25). Therefore to understand the *authentic use of* of a technology, it must exposed and interrogated via *clearing*. Then the essence of technology can be seen. Technologies can be humanity's way of exploring the world, and in doing so, has a mediation and agency that we, humanity give to it. Idhe states "in which the tools or equipment becomes a mean of accomplishment... the material tool withdraws or becomes quasitransparent... in order to be ready to hand quite authentically" (Idhe 25). Using this viewpoint, technology is basically a tool that we control and use, but in its usage, the technology itself has gained agency.

By applying *clearing* or the revealing of technology, we can explore the intentions of the people consuming it. Again, Idhe states how the materials become quasitransparent and must be revealed. The consumers intention's can be explained as "modern humankind (at least in the West) is in the grip of technological thinking" and that "defines our modern way of living" (Wheeler). From a practical viewpoint, advertisers help their clients sell products/ services to consumers who are always looking to buy what they are believed to need. More conceptual viewpoint, Consumers are motivated to seek a technological substitute for the indifference, the "hidden distress of no-distress-at-all" (Wheeler). However, this only provides a very limited or everyday account of the "instrumental and anthropological definition of technology" (Heidegger, Martin, and William Lovitt 312) of our relationship to technology. In a Heideggerian sense, an again supports the idea of an incomplete and an inauthentic understanding of the world our connection to it. Technology ultimately reduces beings, to notbeings or those without Dasein. Heidegger reminds us of the loss of sacredness, and constant wanting for someone else's lived-in-experience. Our experiences are full of distractions from entertainment, information, and web-enabled products; many of which are seen in *JIF* Reflections. The agency of consumers are now defined by the advertisers and their respective clients.

Now that the role of consumer and technology is established (for this exploration); it can be applied to QR or quick response codes. To clarify further, the client is the entity with a product to sell, a message to spread, or an idea to implant into an audience. Advertising agencies work on behalf of their clients. Consumers are the people who will purchase the product, spread the message to others, and potentially accept the ideas presented. Consumers look to advertising (the how), marketing (the who) to define what is *authentic* (the what), for how they are to live. *QR Gold* addresses the false agency sold as a convenience to consumers. Who purchase products in hopes of regaining some agency and no longer want be a passive element (Wheeler).

This false agency is echoed by Michael Dertouzous' book *What Will Be.*, with a forward by Microsoft co-founder Bill Gates, both he and Gates agree that the future of Internet connected technologies will reshape existing, and also create new industries. Dertouzous states "advertising will be done in reverse, by a service that responds to consumer inquiries with product and services that match" (Dertouzous 10). The consumer now believes, falsely, they are empowered-with-agency from these connected technologies and can demand products and services to deliver *Dasein*. This relationship is now complex. Consumers can block advertising on website, skip past commercials, or simply pay for the "ad-free" content on media channels such NetFlix or HBO channels. Consumers also rely on purchasing suggestions from retailers like Amazon.com - again a false level of agency - as purchasing history and data are collected and resold to advertisers. There is new level of complexity in the Internet Age, this relationship is distrustful. Consumers do not trust advertisers will look after their *authentic* needs and wants. Clients do not trust consumers will accept and listen to an honest and *authentic* advertisement.

Advertisers accept the agency of both the client wanting to sell, and the consumer wanting to buy, a product for a defined need. The client, advertisers employ QR technologies to: gather consumer data and better apply advertisement targeting methods all in the hopes of satisfying the client by selling more product. Gathering consumer data, such as location, age, and interests, promise better advertisement targeting to maximize the clients budget and higher advertisement penetration. Gathering consumer data allows the advertiser to charge a higher CPM rate or cost per impressions rate, to the client to find a place for the advertisement. Advertising agencies have taken a panoptic role - watching without confirmation of presence through their use of connected technologies. For the consumers are aware of an advertisers' presence, yet are unsure when or how they will appear in their lives. Advertiser John Wanamaker sums it up as, "half the money I spend on advertising is wasted; the trouble is I don't know which half" (John Wanamaker). Consumers want to believe advertisers have their best interest in mind, but advertisers cannot guarantee consumers will hear above the *Das Gerede* or even believe them. Wanamaker addresses the distrustful relationship of the client and the consumer. The goal now is to collect more data, and more like promises to alleviate this complex relationship.

QR are pitched to consumers as convenience, but this is false. Promoted by advertisers, QR codes allow advertisers to panoptically track and record a user's (consumers) smartphone information. The technology promises convenience and time savings from having to type or remember website URLs. However, the necessary process is intentionally cumbersome and gives a false agency through its use. The consumer has an illusion of control. The process to using QR codes on a smartphone is:



Figure 5, P. Colin Manikoth, QR code sample

I. Users must find a reliable app, that may or may not be free. With the hundreds of apps that scan QR codes, this alone is a daunting task. Apps vary by quality and overall user experience and free apps have a large number of in-app-ads. Also, there levels of authorization required to access: stored data, contact lists, and the camera metadata, such as location, time of day, and dates. All valuable data to an advertiser or marketer.

2. If an app is found, it must be installed, and the terms of use must be accepted. Users frustrated by the countless dialog boxes, simply "Agree to" the terms without considering the access — or agency — they given to a third party.

3. Users must then find and scan a QR code. The code also may be damaged and needed rescanned. Codes are also sometimes hard reach or are placed in compromising locations, e.g. on an attractive model's body.

4. If a code is scanned, users are presented with pay walls to upgrade to remove advertisements or redirected to other sites. Rarely does scanning a QR code go directly to the what user expected.

Little is convenient about the entire process. For many I months scanned every QR code I could find. QR codes were found on product packing, signs around town, physical mail, in stores and restaurants, and on many websites. As I started to pay more attention, I discovered the immense number of QR codes in advertising. After all many months, I found nothing of value — absolutely nothing of value. I discovered how many layers of tracking existed and rarely, did it go straight to destination. The overwhelming majority of scanned codes lead to: pay walls, more click bait, extended user tracking, additional offline marketing, and the collection of user metadata. QR codes are a benefit to the advertiser, not the individual consumer.

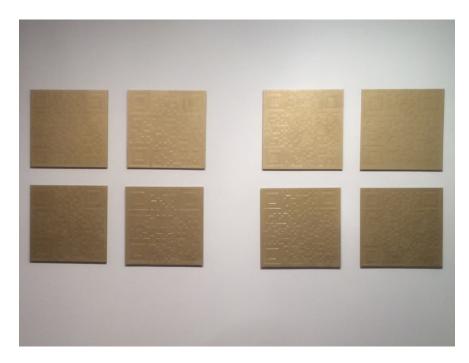


Figure 6, P. Colin Manikoth, 2R Gold, MDF board & gold paints, 2015

From this discovery and a Heideggarian method of *clearing* or a way of Being in which things are revealed, the work *QR Gold* emerged. The element gold is a good conductor of electricity, the term GM or Gold Master describes the canonical copy of software, and is immensely valuable, like consumer data. The weight of the physical piece, if in pure gold, would be worth-less-than the potential consumer data collected and used. As the collected data is bought and sold in the exchange between advertisers and client, "the data takes on life of its own...as our data selves assume an identity all their own" (Elwell 47). In short, how its collected -QR codes, website trackers, interstitial ads, etc. - begins to matter less. To regain the loss of value of the QR from, I highlighted its features in gold and glossy tones to be attractive and ornamental. In making QR codes, more beautiful; it stops working completely. As J. Sage Ewell asserts, the collection as a "database becomes less obvious and less significant in proportion to the data itself" (Ewell). Therefore, how it was collected matters less - its utility. This occurred with *QR Gold* as there is no longer enough contrast in color between square units and the QR code lost all utility. By accepting the true nature of an experience, we lose or give up agency and defining authenticity. This is what happened with *QR Gold*.

For many years I extolled the values of QR codes. I helped convinced clients of its benefits, and taught students how to leverage it to gather user data. That it could do more a barcode, and it was more than utility. I even put it on my own business card; I was wrong.

Each new web service or technology promises greater conveniences and community. In exchange we (willingly) relinquish even more of own digital: data, location, and identity seen by previous work *QR Gold*. The price is nothing - we expect everything to be free - however the costs are much higher. Agency is defined by entity and constantly adding to the *das gereder* or chatter of popular media. Consumers are giving up agency to a constructed template for who they are, and how they should be living their lives. Consequently consumers are not living authentically.



Figure 7, Keiichi Matsuda, Hyper Reality, film, 2011

A look into the bleak future of technology proposed by filmmaker Keiichi Matsuda in film *Hyper Reality*. Where physical and virtual realities have merged, and our reality is augmented by a saturation in advertisements thrusted upon us, like the *throwness* of modernity without agency. Keiichi Matsuda is interested in the dissolving boundaries between virtual and physical to propose new perspectives on life in city. This film displays Heidegger's concerns of humanities lost connection to nature and reliance on messages via *Das Gerde*.

We as a society love technology. Our newspapers categorize content as "World", "Business", "Sports" and listed next to each is "Tech". Society loves making, owning the latest gadget, and proselytizing for companies that make our lives easier. However there is an unease about losing the ability to do something ourselves. *JIF Reflections* continues the concerns of advertising and tracking from *QR Gold*. Also, *JIF Reflections* uses a similar delivery method as *Nailed It!* with Impact font overlaid on top of imagery.



Figure 8, P. Colin Manikoth, JIF Reflections, animated .gif file, 2015

JIF Reflections are animated gifs, a low-quality, and universally available image format, to deliver short video clips. The gifs show the new web-enabled technologies being advertised today. These gifs, automatically play and then loop without any interaction. Also an intentional misspelling of "gif" and a play on words of the debate between the proper pronunciation of the word. Steve Wilhite created the Graphics Interchange Format, or GIF, while working for Compuserve in 1987. When he received a Webby Award in 2013 for it, Wilhite was adamant it is pronounced "jif" with a soft g-sound, not like "gif" with a hard-g sound. However, the Internet does not agree, but does recognize Wilhite as the he creator of the format, not the canonical pronunciation of the word. The Internet has taken ownership of the format and the pronunciation of the word - agency has been coopted. The Oxford English Dictionary even accepts both pronunciations. Their rationale, it is an acronym for: Graphics Interchange Format. "Graphics" is pronounced with a hard-g sound, not soft.

Internet technologies, and the people who use it progress quickly. Cultures, and subcultures are formed seemingly overnight catalyzed by the new tools and services being offered everyday. *JIF Reflections* is a reminder to pause and consider the speed at which information and web-enabled technologies are progressing, the reliance on those tools, and a reminder that human beings use these tools. Human beings do not change as quickly as their tools and services.

Thus far, to summarize the work of *Nailed It*!, *QR Gold*, and *JIF Reflections* is to reevaluate our role of web-enabled technologies. Again, Heidegger was "no luddite" but did want humanity to "inhabit it differently" (Wheeler). The machines and devices of the modern age should be there for our necessary utility, provide conveniences, and possible enjoyment. "So we should neither "push on blindly with technology" nor "curse it as the work of the devil" (Heidegger, Martin, and William Lovitt 330). Although Heidegger often romanticized nature and the pre-technological age; he also believed that it was not possible for modern humanity to be entirely without technology.

4: Prosthetic

Both *Nailed It*! and *QR Gold* initiated questioning about whom has agency, and what their intentions are. Now the thing, the code that powers web-enabled technologies, needs to be explored. J. Sage Elwell from *Crisis of Transcendence: A Theology of Digital Art and Culture* describes all digital art as: code, database, and algorithms used explicitly in content, and form. Art can be a reflection of ourselves, and our world. If that art is digital, then it must be created in code. Our world is beginning to be represented more and more in code. This creates a reliance on the digital *prosthetic*, an artificial and augmented representation of how we view this recreated world. This process of recreation will "eventually come to signal the deep intersection of humanity and technology" (Elwell 59). There are also echoes of Kirby Feruson's remixing process: copy, transform and combine as seen the previous work of *Nailed It*! and *JIF Reflections*. Elwell uses the metaphorical prosthetic to show "infinite universality of the database" (Elwell 78) or the content itself to be coded. I contest the prosthetic, via the physical sense, later addressed in the *Cinder Carousel* and *The Water UI*. I argue that the physical, is not as universal as the digital and does not include everyone.

Elwell begins this statement by establishing the idea that consumers of the many digital products and services necessary in the Information Age have a *fetish* for code. I agree with the idea that we, myself included, have a fetishized motivation for upgraded and new digital products, but few consumers understand or care, that code is born from a process of digitization. A phenomenon of reduction of objects from our physical world to the binary concepts of o (true) or I (false). Later, I borrow Elwell's concepts of the fetish and address these unseen layers of code in my work the *Cinder Carousel* and the *The Water UI*. The intentions of the code is to be a tool that transfers agency through the "fetishization of code that places the power to control and ultimately transform the world in the fallible hands of humanity" (Elwell). The *fetish* is the motivation and agency is in the hands of the creator. The memes created with computer code are representations of the physical world. The creators transforming the meme are human. This transformation is an act of agency.

Humanity is fallible; it now needs asking what happens when we internalize the fetishization of digital code and recreate ourselves in data? This is a necessary question and observation because this transformation not only impacts how we understand the world, but also how we understand ourselves. We internalize the *fetish-logic* of code, and recreate ourselves in data. In this recreation, Elwell states three points:

I. A database or collection of data is the content, not the form.

2. Algorithms or logic of code define the presentation of oneself through experiencing the world.

3. The data itself (content) is separated from database to become *data-self* and independent with its agency.

The *prosthesis* of the *data-self* is not a natural or a simple transition; it has both gains and losses. Prosthesis was originally a term was medical as a replacement for missing body part with artificial one. To explain the transition to a "digital prosthesis", Ewell ask then answers: "what dimension of the embodied person and be augmented in a digital, non-physical form?" (Elwell 59). The answer gained is *self-identity*. Like losing a limb, we are separated-in-data from ourselves. What is left is the *self-identity* contained in that *data*; this is the prosthesis. In gaining this new prosthesis, we go through the process of accepting the loss of a piece of oneself, and some human ability, consequently some agency. The individual must live with the effects that loss, and regain something new by shaping oneself with the prosthesis. "In the age of machine, the prosthesis of "man" was a machine, in digital age, our prosthesis is information (Ewell 61). Through this *prosthesis* and augmentation of our *data self*, the separation of the person from the *data-self*, that is not whole, or under its own control and agency. Again, humanity gives others the agency to recreate themselves in code, but the remixed result (Ferguson) is as fallible as the creator (Elwell).

My earlier work, *QR Gold* and *Nailed It!* also supports these three points. *QR Gold* addressed data collected from consumers that separates who they are, from what they did. QR codes use algorithms to define how data is logically gathered, then organized, and lastly stored or retrieved. The *data-self* is recreated from the analysis of QR collected data into demographic information and usage statistics, e.g. 18-24 year old white males from 5-8pm should be ad targeted. The accuracy of this recreation is incomplete, and like a prosthetic, different from the original. A different self is created by the an analysis of database. This becomes the new or different way to describe and what essentially becomes autonomous in the absence of original narrative. Once autonomous the *prosthetic* itself has agency.

Cinder Carousel addresses the issues surrounding Web Accessibility and creates a reminder that all technology, is assistive technology or a *prosthetic*. The work is comprised of a screen with polarized filters removed. To the naked eye, the screen is completely white and is a non-functioning display. The screen works does indeed function normally, and replays a

collection of animated .gif files from the work *JIF reflections* or the *database*. To see this, the prosthetic is continued by way of glasses that reveals the screen in full color. Remove the classes, and the screen is white again to the viewer. To navigate through the carousel, cinder blocks replace the standard mouse and keyboard, to act as a physical prosthetic. The computer itself is hung like a carcass of meat. Recall Thomas Keller and the butchering of rabbits to be more apart of this process. The display also is a reminder to Elwell's *fetish-logic*. By putting the computer components on display, I hope to remind the viewer that physical representation of gains and losses from *self-idenity* to *data-self* via a *prosthetic*.

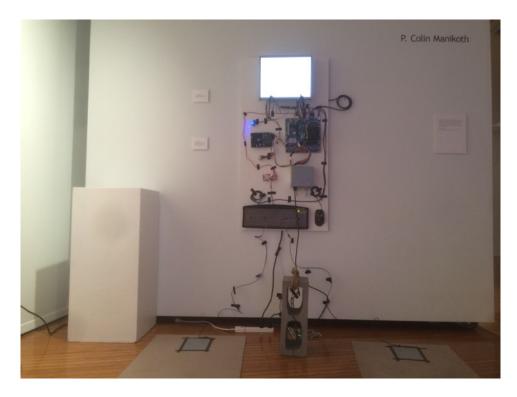


Figure 9, P. Colin Manikoth, Cinder Carousel, multi-media installation, 2016

Artist and designer, Mary Flanagan's work *Phage* also uses the idea of the *data-self*. *Phage* is a downloadable program that scans a computer's hard drive for random images, sounds, websites, emails, text, and anything that would consists of "the computer's unconscious" (Elwell 48). This collection then is the *database* to create to the new *data-self* by way of an self generating 3D animation. This animation generates many emotions as what was once relatively private, is now public and seemingly has its own identity. The *prosthetic*, although digital, *Cinder Carousel*, attempts to expose the user to the hidden and unseen.

For *Phage* to work, it assumes a person is fully capable to using a computer without physically impairment. *Cinder Carousel*, although shares the same objectives, but challenges the universality of this process. Who is not included in the remixed *data-self*? Again, exploring Ewell's infinite universality of the digital database, by the exposing what is hidden from view; we see not every human is capable of participating — physically - defined as disabled. Disabled users are typically defined as those with a physical or cognitive impairment ranging from color blindness to complete blindness, from reduced motor skills to a complete reliance on voice recognition.

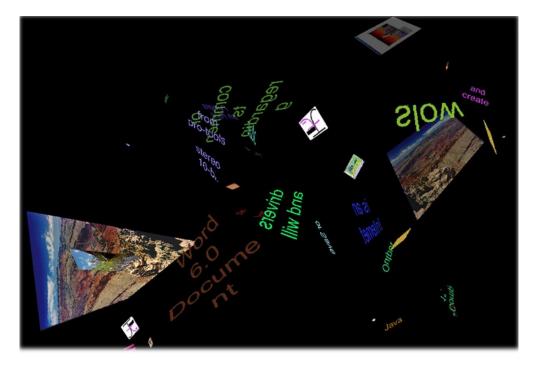


Figure 10, Mary Flanagan, Phage, computer program, 2001

The carousel UI (User Interaction) was chosen because it is a prevalent and popular interaction on the Web, but it poses significant issues of universal accessibility to disabled users.

Carousels introduce a level of complexity to an interface. For example, carousels may auto-rotate relatively quickly making interactions difficult for someone with a cognitive impairment. Additionally for blind users the rotating content is not conveyed screen readers; the software that reads content aloud to blind users. They also require more overhead slowing down page loading with additional coding and styling. Jakob Nielsen, usability advocate, stated that these large carousel areas annoy users and also cause them to skip over that featured area (Lazar). Even though carousels are not effective, it persists because it is acceptable to dismiss a minority of users.

Cinder Carousel attempts to raise concerns of web accessibility, and is not as infinitely universal as Elwell asserts. What if moving a mouse cursor was a difficult task? If the content is important, and deserves special attention via a carousel of textual content and imagery, then why are we excluding disabled users? Google.com, is one of the most powerful websites, and also the most handicapped entities on the Internet. It is blind, mute, deaf, and immobile. By changing the interaction of the carousel, to require physically lifting heavy cinder blocks, requiring special glasses to see the screen, and tethering the user to the computer; I am creating a reminder, and hopefully empathy to the fact that these handicaps exist. It also assumes you have, can afford to, or even want a computing device of any kind. Both pieces are reminders of this seclusion and lack of access echoed in *Nailed It*!. Universal access is a human right. (Norman)

Many current websites, web-enabled software, and services ignore universal design principles. The *inclusion principle* (Link-Rodriguez) is the consideration for practices and behaviors that leverage and honor the uniqueness of peoples' different talents, beliefs, and ways of living. By embracing the *inclusion principle* it allows the creator to forget about the dichotomy between them and us (Gibson). The discussion now shifts to a prioritization of universal design from the outset, versus a feature begrudgingly added later to the app/service. For example, web accessible features are added by protest from Disabled users, or Section 508 of the Americans with Disabilities Act, which requires information technology be accessible to people with disabilities, and rarely the creator themselves. How can Ewell's *data-self* be made, if the database is not accessible to all?

Today there are a staggering number of different layouts, different formats, different versions, different delivery methods. Differences is the keyword. Then, why do we continue with the same approaches — to the differences of users? People are humans that come in many shapes and forms and abilities. Computer interfaces help people communicate with software, information, and with other people. Websites are software that help people accomplish these goals, regardless of the hardware and software combination. Whether implicit or direct, the preference is towards the able-bodied. By considering the *inclusion principle*, it reframes accessibility as technical challenge to be solved, to reshape *prosthetic* both physically, digitally, and metaphorically.

Continuing the exploration of the UI or user interface, we see it both as implicitly in the work of Ben Fry, and explicitly in my work *The Water UI*. Artist Ben Fry continues concepts from the *inclusion principle* stating "many government agencies have worked hard to make their data more widely available, making information accessible to any interested web user, than the small number of people" (Fry 265). Fry takes away user - disabled or not - agency in his work, by methods of randomization and uses Ewell's second point of *fetish for code*, and allows the algorithms or logic of code to produce its own *data-self*. "At some point deep and powerful principles of complexity may well emerge from the large ensemble of simulations. They will reveal the algorithms conserved across many levels of organization up to the most complex systems conceivable. These systems will be selfassembled, sustainable, and constantly changing yet perfectly reproducing. In other words, they will be living organisms (Wilson 103)."

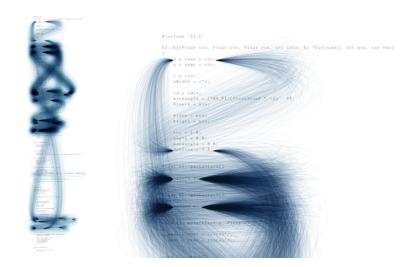


Figure 11, Ben Fry, Deprocess, print, 2001

In his work *Deprocess*, Fry lets the code underneath be visible and allows the unseen sequence and repetition of code to be highlighted. The *Deprocess* print exposes what is hidden, then highlights it to the viewer. What is hidden are the algorithms and logic. What is revealed is the data, constructed by code, is has an identity itself. Like the physical components of the made visible in *Cinder Carousel*, the computer processor or brain of the computer has its own identity.

If the *Cinder Carousel* creates reminders of the separation and the limitations of universality of code, *The Water UI* attempts to do the reverse. In considering the *inclusion principle*, *The Water UI* wants to create a connection between viewers by use the physical universality of water. Humanity shares the same necessitation for water. On a pedestal is a glass bowl filled with water resting on fabric with ornate gold designs; similar to how holy water would be presented in a church. Underneath the bowl is a small hole with a copper wire that connects the bowl to a computer. The bowl is now the only interface or UI (user interface) to the computer. From the computer are projected three Mark Rothko paintings: Orange and Yellow, No. 61 (Rust and Blue), and Untitled 1953. However each painting as been recreated in code via a the web application the uses HTML (Hyper Text Markup Language) for its content, CSS (Cascading Style Sheets) for it form and visual appearance, and JS (Javascript) to control the interaction from the bowl of water to the computer. The viewer touches the water inside of the bowl and a slightly different version of ether painting is shown each time. The code randomizes certain aspects of each painting such as the (digital) brushstrokes and amount of color gradients given the viewer a new painting with each touch of the water. The number of variations are not infinite, but there are a 100 to the 9th power variations. In reality no one should ever see the same exact-same painting twice. Like Fry's work with Deprocess, I wanted to expose the code implicitly at first by showing its movements, then allowing the viewer to look at it closer on their own agency. All the code for *The Water UI* is publicly available at from the URL, http:// codepen.io/manikoth/pen/jqxNpP.

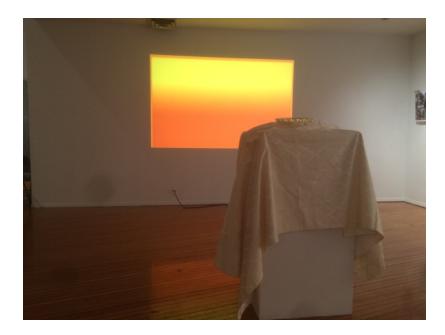


Figure 12, P. Colin Manikoth, The Water UI, multi-media installation, 2016

The work of was Mark Rothko was the inspiration for the *The Water UI*. His quote "there is no such thing as good painting about nothing" influenced the interaction of the user and what they saw. The holy water and pedestal reference is directly inspired by the *Rothko Chapel* in Houston, Texas. A small non-denominational chapel, and also universal, open to all beliefs housing Holy books from various religions. Showcased are fourteen of Rothko's black paintings, which incorporated other dark hues and texture effects and generates typical questions of "what are the paintings?" (Rothko Chapel).



Figure 13, Mark Rothko, Rothko Chapel

Rothko's work is sometimes dismissed as easy, until you begin to see the atmospheric quality, and levels of complexity created by the artist paintbrush. What Rothko did not do with paint, I am attempting to with HTML, CSS, and JS. I am using the ease of water to bring to light the complexity of code. Code is also easily dismissed also because it is everywhere and so ubiquitous on every facet of technology. Both water and art are universally necessary and both equally complex. The action of touch water requires little effort and is a reminder of the need for more universal interactions; see *The Cinder Carousel*. Without water, there is no life. Without art, life is neutral and plain as water, satiating the body, but not the mind or soul. Rothko's

paintings are reminders that it is more than simply pigments on canvas. I hope to the same with code. Code, like a painting, can have a soul and be more than its medium.

The *The Water UI* is demonstration of Ewell's concepts of database art and the prosthetic via a web applications. A web application utilizes the three primary web technologies of HTML, CSS, and JS. These three technologies are the most widely supported across the competing platforms, and devices created by Apple, Microsoft, Google, and Amazon. The *database* is the content or the three painting from Rothko recreated in the code. The algorithms are the logic, I gave agency to by allowing it to randomize itself. In this process, the code establishes its own *data-self* with each randomization. The prosthesis, the connection to the original work of Rothko via the water bowl, "compromises the identity and authority of the embodied or narrative self" (Ewell 80). This realization of this separation supports the ideas of the death of the subject. *The Water UI* now leaves a point of continuation to the work of the post-structuralists Jacques Lacan, Michel Foucault, and Jacques Derrida (and others) "asserting the collapse of modern Enlightenment ideal of a whole autonomous and perfectly rational individual". Separation of the person from the data, that is not whole in its own making, or wholly under its own control with little to no individual agency

5: Conclusions

My work attempts to remind individual users, to pause, and then consider their role in adoption of web-enabled technologies. Web enabled-technologies can be defined as the: software, hardware, and services that are connected to the Web; sending and/or receiving data via the Internet.

Firstly, I approach this challenge by focusing on the definition of agency to an individual user of web-enabled technologies. I begin by creating a discussion with the user and their web based interactions. Secondly, I ask what is their role and what parties are involved in these interactions? Thirdly, I make the user aware that there are advocates pushing these technologies forward and also critics to question their intentions. As consumers, we allow private companies and also Governments to determine: what technologies we use, how we collectively use them, and who gets to use them. User agency is exchanged in these interactions. Conveniences, such as free social media, are not without their costs. Agency is exchanged via the technologies - the software, hardware, and services - that a user relies upon to be apart of a connected society. Also, the amount of agency exchanged by individual user, and controlling parties, are in constant debate as technology changes faster than the policies can keep up with.

Individual users have needs, that are met by conveniences. A continued reliance on those conveniences, may lead to willingly relinquishing or the giving-up-of user agency altogether. At this point, the individual can begin to reevaluate their place in this system.

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