no-w-here

Bachelor of Fine Arts, Alfred University, 2014 Associate in Science, Jamestown Community College, 2010

> Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Fine Arts

University at Buffalo: The State University of New York College of Arts and Sciences: Department of Art

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abstract

This thesis explores the relationship between analog and digital in the formation of the transmediated self. The borders defining the opposition between digital and analog are not so distinct, forming a liminal area, or space between borders. I investigate through an analysis of the autonomy of media and space, their interrelationship, and how this relationship is in flux.

The approach to my thesis sparked from a research question: Why are humans so fascinated with imprinting elements of their physical existence into computerized systems? In this paper, I establish how we formulate identity through technologies that act as extensions of our being.

In an effort to produce narrative-based interactives that are not like games, I justify the utilization of transmedia as a loose narrative structure. I use this structure as a lens to examine contemporary works by John Kessler and Rafael Lozano-Hemmer. This critical analysis allows me to situate my current practice amongst these contemporary artists while expanding the ontological discourse of embodied media.

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prologue

By exploring the interplay between analog and digital technologies within my practice I strive to understand how these technologies are affecting the realms in which we operate. This modern episteme that we live in was conceived through and now is reliant upon digital technologies. I believe modern individuals need to be aware of these tools, and for the artist/scientist/designer to utilize or subvert these tools to evolve the ways in which we think and operate.

Ask yourself, "Have I ever posted to social media, only to receive far fewer likes than expected?" For the average citizen, upholding a digital persona is just as important in the formation of the self as one's physical representation. How does one then step back and connect this digital persona to the realm of digital art? *no-w-here* forms a locus of study that exposes the ways in which our use of digital tools has become tethered to our analog being to such a degree that we now operate within the liminal gray area between the here-and-now analog space, and that of the no-where digital space. In this paper, I extrapolate the potential that transmediation has in forming identity to propose an underlying structure for interactive media installations.

As a proponent of interactive art, I investigate how transmedia may be used as the backbone of our casual formation of meaning while interacting with an installation. By stepping back with a critical focus on phenomenology, or the science of phenomena and nature of being, I establish ways in which we can relate to media through bodily interaction. I do this to establish how interactions may be influencing further actions, as well as what we take away from these types of experiences. Furthermore, I analyze theory to pose the question: does differentiating between analog and digital tools make any difference in the overall reception or meaning of a work?

After covering some terms and their relationships to embodied media, I then investigate two contemporary media works by artist John Kessler. I explore their summation of meaning through my assertion that they are a commentary on the transmediated self. Since his works do not permit interaction, I then contrast them with a contemporary interactive work by artist Rafael Lozano-Hemmer to see how the shift may alter our perceptions.

This research has prompted the question: does interactive media art have a greater ability in representing the transmediated self than non-interactive art? After exploring these case studies, I lead to the experimental works of my thesis exhibition *no-w-here*, which was installed at Big Orbit Gallery in Buffalo, NY. By situating my smaller works to establish other avenues of how we imprint into digital systems, I then lead into a critical review of my primary work, *Simulated Sentience 2.0*. This latter work is an expansive, interconnected system that explores the cocreative potential between the analog and the digital. I then compare my work with Kessler's and Hemmer's to see where there are overlaps and variances.

As a self-proclaimed third-wave media artist, I chose to investigate transmedia to implement elements of media art's lush history while integrating the notions and technologies of tomorrow. Through establishing the structure of my embodied media assemblages, I also pose some questions. While focusing on interactive media installations specifically, does labeling them as "representations of the transmediated self" instill a more conscious feedback loop within its user(s)? Otherwise, what allows interactive media work to be successful for the individual user and or a network of users? Through the utilization of theory, nostalgia for the past, and excitement for the future, I better situate my practice into the social context of contemporary society that I am commenting on.

deconstructing embodied media

It is the speed of electric involvement that creates the integral whole of both public and private awareness. We live today in the Age of Information and of Communication because electric media instantly and constantly create a total field of interacting events in which all men participate.

- Marshall McLuhan, *Understanding Media*, 1964

Sometime in the middle of my graduate research, I was introduced to physical computing; systems that can sense and respond to the physical world. After a short time, I decided to return to Max (MSP/Jitter), allowing me to integrate physical sensors into my previous know-how of digital interaction design. This combination of analog and digital was quite exciting, but it also prompted some concerns. My past explorations of interactive media installations offered intriguing research and unique experiences; however, the works never had any connecting themes beyond their individual functions. Through this section, I highlight my areas of interest while ascertaining the meaning of terminologies. This will establish a foundation to explore this realm more accurately.

Firstly, why embodied media? Let me first give some context. From my time as an undergraduate, I have been fully invested in using the term "new media" as a way to label my practice. This term has become so expansive to the point where it almost has no meaning anymore. In the most general sense, the term new media has been used since the early years of digital computing as a way of separating itself from 'old media,' such as television and radio. Philosopher Marshall McLuhan's famous aphorism "the medium is the message" initiated a

paradigm shift to the extensive study of the medium itself.¹ Due to the overwhelming expansion of the field, continuing to advocate my work as 'interactive new media installations' does not seem to have the proper description that it once seemed to uphold. I now believe the overall term covering my current practice is "embodied media." Therefore, when referring to the subcategory of interactive media installations, I will use the term, *interactive(s)*.

Embodied media was a term that I once strictly associated with wearable technologies, though I now know the area of its concentration is much different. It has been defined as "a next-generation interactive media and computing paradigm that involves elements of ubiquitous computing, perceptual user interfaces, tangible interfaces, and interaction, as well as computer-supported collaborative work and social computing." In summation, this area of study investigates various avenues of communication design. The future outlook of this realm of research sees technologies that are so immersive into our physical space that technology might end up working for us as we become situated *inside* the digital media itself. Since this is quite suggestive of mixed reality, I will pull back a little and explore the slightly-less-avant-garde subrealm of embodied media that focuses on the interplay between analog and digital technologies.

At the core of embodied media I find the most integral element to be the body. It may be no surprise then that over the years I have continually returned to phenomenology as food for thought. For example, when asked about a recent museum visit, rather than thinking of my favorite works, my answer generally defaults to the physical exploration of space. To clarify, this

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¹ Marshall McLuhan. *Understanding Media: The Extensions of Man*. (Cambridge: The MIT Press, 1994), 9.

² Cheok, Adrian David. Art and Technology of Entertainment Computing and Communication. (London: Springer, 2010), 3.

interest in space is not a fantasy about architecture but rather my body's relation to space. This forms a narrative that I can unfold in real-time.

Due to my interest in the body's relation to space, I have returned to its related theory over the years as a source of inspiration within my work. However, my research into phenomenology never really solidified any meaning or narrative in my work as I was always caught up in the metaphysical act of observation. As outlined by philosopher Jean-Paul Sartre, the body can be seen in two different modalities: being-for-itself and being-for-others. The first is the body as lived by itself, and the latter dimension can be seen as the body as it is known and utilized by the Other.³ Classifying these two dimensions may seem like no big deal, but where Sartre forms a discourse is within the relationships between these two modalities.

Following Sartre's model, I believe creating interactive systems within space is challenging for two reasons. First, one must construct systems for those users who will be activating the work by themselves on a more metaphysical level. Second, one must be aware of the possibilities of communal interactions. Overcoming these challenges to permit smoothly varying interactive potential is part of my interest in creating within this area. Nonetheless, this still leaves the unanswered question of what the underlying meaning of these ephemeral works might be.

After some persistent research, I came across a concept that would become the cornerstone of this thesis: the transmediated self. I believe this is an important concept for inquiry since we no longer live completely in the space of the analog, but rather somewhere between the spaces of the analog and the digital. Even though I have found this sort of media theory discussed in

³ Jean-Paul Sartre, *Being and Nothingness: A Phenomenological Essay on Ontology* (New York: Washington Square Press, 1984), 401-404.

different ways in various texts, I believe society has arrived at a tipping point of connectivity which instantiates adequate avenues for investigation. Artist and theorist Sage Elwell does a wonderful job at contextualizing modern connectivity to nail down this transmedial paradigm.⁴

Through investigation of a few case studies in the next section, I question how technology-based art may better form identity; what is gained and what is lost? Through reviewing these works, I introduce theories by Elwell and others to solidify my notion that we should be conscious of the medium, not only in the reception of works but also while critically reflecting on our own being.

⁴ Sage J Elwell, "The Transmediated Self: Life Between the Digital and the Analog," *Convergence* 20, no. 2 (2014). DOI 10.1177/1354856513501423.

the transmediated self

Transmedia is a process precisely because the old top-down model of creator-spectator, producer-consumer is giving way to a nonlinear, immersive, and dialogical model of participatory cocreation.

- Sage Elwell, "The Transmediated Self," 2014

Integrating analog components into my digital art practice has prompted me to question the ability of media itself in fostering narrative structure. Using John Kessler's two works from the 2017 Whitney Biennial as case studies, I inspect the technologies implemented to see how they form narrative structure. Specifically, I focus on the interplay between analog and digital modalities to speculate if they bolster narrative, or if analog is implemented as mere spectacle.

Containing strong socio-political narrative structures, I would say that Jon Kessler's *Evolution* and *Exodus* are two of the most successful technology-based artworks that I have ever seen in a prominent contemporary gallery space. After my initial encounter, I have begun a quest of inquiry, as I believe Kessler is tapping into the realm of transmediation or the blending of analog and digital modalities. After a semiotic analysis, I establish how Kessler's implementation of identity may be pointing toward the transmediated self.

Situated within a white wall gallery aesthetic, these works are visually spewing with technology yet gracefully unite to generate Kessler's narrative structure of social inequality through the topic of global warming. Presented next to each other, Kessler describes that in some ways they are

opposite from one another.⁵ Taking this into consideration, I analyze each to dissect not only how they differ but in what ways they might come together to enhance his narrative structure.

Kessler's work *Evolution* contains one male and one female mannequin that are sporting VR (virtual reality) and swimwear while fixated on a 3D printed miniature of a luxury condo that is residing in the females' hand. They are standing waist-deep in the middle of ocean waves, represented by mechanically oscillating flat screens.⁶ These screens present video digitally from an analog switcher, alternating its contents between a prerecorded video of the condo and two live camera feeds.



figure 1

These mannequins represent the wealthy elite, taking pride in their seawalls and structures while comfortably oblivious of what is going on in the world around them.⁷ Being in one of the countries that is the most responsible for effects of global warming, Kessler shines light on this inequity by suggesting that we (Americans) take the humanitarian approach by not only trying to resolve the conflict but also helping these people in need. After digesting the more formal

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⁵ Jon Kessler, *Exodus*, Whitney Museum of Modern Art, date of access November 15, 2017, mp3, https://whitney.org/WatchAndListen/1437.

⁶ Jon Kessler, *Evolution*, Whitney Museum of Modern Art, date of access November 18, 2017, mp3, https://whitney.org/WatchAndListen/AudioGuides/40?stop=8.

⁷ Ibid.

qualities of the work, the focus may then shift to Kessler's unconstrained mishmash of cables and other hardware, deliberately leaving us to analyze the mediums implemented.



In contrast, the refugees seen in *Exodus* are the ones dealing with the catastrophic effect of global warming, even though they are hardly at fault for aiding in its effects. This work (literally and figuratively) revolves around a flat-screen, mounted vertically on top of a trunk that serves as a pedestal. Turning around the monitor is a never-ending march of refugees, represented by various tchotchkes. A mounted iPhone camera (represented as a white surveillance camera in the photo) is pointing at the monitor with the figures situated in-between. This creates a feedback loop, further exemplifying the complexity of the march. 9

It can be argued that the general meaning or narrative of these two works is interpreted by viewing, similar to that of a painting. Therefore the meaning is constructed through an assemblage of signs. Acknowledging this we can then assign McLuhan's aphorism, "the medium is the message" in order to look past general representations and dig into the specific usage of

⁸ Ibid.

⁹ Kessler, *Exodus*.

¹⁰ Daniel Chandler. Semiotics: The Basics (New York: Routledge, 2002).

medium. Since the structure behind each of these two works relies heavily on varying forms of video, I am going to focus on the individual implementation of each to see how they add to the formation of this narrative.

Below the flat screen waves, one of *Evolution's* live feeds showcases an analog security camera that is mounted on a reciprocating track. Pointing downward at an open spinning book, the feed shows an Op Art painting, 11 essentially containing squiggly blue lines. The effect delivers a dizzying video effect, which furthers the illusion that these represent real, analog waves. However, these waves are of course then played back in digital form on the TVs. If the focus is on digital life, and the destination is a digital flat screen, why does Kessler bother using an old analog camera? Bringing forward notions of a less-mediated era (before the digital revolution), I use this camera, and its feed, to form the keystone of my analysis.

Evolution's other live feed is a bit different. It originates from the female's iPhone that she is holding up over her head. She points it downward onto herself, illustrating the act of a selfie. This feed is captured digitally, converted to analog (to pass through an analog switcher) and then reconverted to digital to be shown on the flat screen waves. Again, why not use a digital switcher? Media theorist Friedrich Kittler suggests that a complete connection of all media on digital grounds tends to wipe out the notion of the medium itself. Since all digital content is just numbers, where any medium has the ability to transform from one into another, Kittler believes that absolute knowledge can run as an endless loop. After acknowledging this, I do not believe that Kessler is using antiquated technologies due to a lack of a budget. He using the analog

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¹¹ Kessler, Evolution.

¹² Fredrich A. Kittler, *Literature, Media, Information Systems: Essays*, Edited by John Johnston (Amsterdam: G+B Arts International, 1997), 32.

switcher as a way to represent physical, intermediary space, thus forming a more natural relationship to the ways in which we utilize digital technology at the user level.

Stepping back to look critically at Exodus, a similarity and a difference can be found. There is a feedback loop here as well, but this time there is no analog conversion and no signal switching. The digital iPhone does capture analog space but presents it on the digital screen. The feedback loop formed is essentially digital-to-digital, posing how analog life is suspended in the middle. What could Kessler be trying to say about this work with his use of technology in this way?

Kessler could have used all digital components, yet chose to also include analog ones. Elwell points out that we no longer "go online," but rather are always connected to the infosphere of the Internet through ubiquitous digital gadgets. He states that solely analog identities are outdated and that the transmediated self is the new locale of everyday life.¹³ I believe Kessler's use of both analog and digital components is to allow viewers to enter a metaphysical reflection of digital identity. Philosopher Peter-Paul Verbeek researches these types of postphenomenological approaches where technology is conceptualized as the mediator between us humans and our world. Within his study, *Evolution* would be classified as "hermeneutic" as it forms a unity with the world rather than offering a space for interaction.¹⁴

Taking this transmediated approach, I propose perceiving Kessler's use of analog technology as a lens focused on analog life and digital technology as a lens focused on digital life. In thinking this way, an analog camera capturing an analog painting can represent the underlying structure of the analog world. This forms a foundation to maintain digital space. The digital iPhone cameras

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¹³ Elwell, "The Transmediated Self," 233-235.

¹⁴ Peter-Paul Verbeek, "Beyond Interaction," ACM Interactions, accessed December 12, 2017, http://interactions.acm.org/archive/view/may-june-2015/beyond-interaaction.

in *Exodus* and *Evolution* can clearly be seen generating feedback loops. Elwell claims, "Transmedia is a[n interactive] process precisely because the old top-down industry model of creator-spectator, producer-consumer is giving way to a nonlinear, immersive, and dialogical model of participatory co-creation." This suggests that rather than reflecting on real-world (analog) effects that are captured and presented by digital technology, we are left ranting about it on a digital platform where no physical action takes place.

Through this analysis, *Exodus*' all-digital technology may now represent our examination of the world from a digital distance, while the analog switcher in *Evolution* can be seen as the human sensibility trying to interject itself into the feedback loop. The feedback loops themselves can also represent this modern inadequacy. While *Exodus* is simply titled for what it shows, my proposed analysis of *Evolution* can now situate the work as a comment on modern society; we have become interconnected while paradoxically we are also driving ourselves further apart.¹⁶

Art-savvy people might be quick to classify *Evolution* and *Exodus* as new media works, however, Kessler himself refers to them as "mechanical sculptures;" perhaps rightfully so. His work holds notions of society that are enmeshed in digital computation, but there is no live network for interaction within the work. On the subject of media art, media curator Steve Dietz argues that a work cannot be labeled as "new media" if computational processes do not make a difference to the presentation or reception of the work. Arguably, these works do contain

¹⁵ Elwell, "The Transmediated Self," 240.

Sherry Turkle, "Connected but Alone?" TED, modified February, 2012, https://www.ted.com/talks/sherry turkle alone together

¹⁷ Kessler, *Exodus*.

¹⁸ Steve Dietz, "Collecting New Media Art: Just Like Anything Else, Only Different," YPRODUCTIONS, Last modified November 5, 2005, http://yproductions.com/writing/archives/collecting_new_media_art.html.

analog-based, "smoothly varying" computing. 19 Whether *Evolution* can be classified as "new media" or not, it should now be evident that interactives hold more potential for forming identity.

Introducing an actual interactive will more accurately show the ability that networked media has in forming identity. *Bilateral Time Slicer* is one such work that structures its narrative around a simple parameter. Since it has been argued that a semiotics approach to interactive[s] can be problematic,²⁰ I have made an analysis of this work brief to focus on the creation of narrative.



This work by Rafael Lozano-Hemmer harnesses a biometric tracking system that is implemented to analyze subjects when they enter space. ²¹ When this live camera system recognizes the body of a subject, a vertical slice of video is recorded. This slice is then split down the middle and pushed outward where it loops its playback. When there are no participants,

these slices of time fold back into themselves. This forms a series of past happenings that can serve further contemplation. Each recorded video gives user(s) a literal slice of themself

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¹⁹ "Analog vs. Digital Computing," *World of Computer Science* (2007), Gale, 2007, *Science in* Context, Gale# GALEICV2424500027.

²⁰ Torben Grodal, "From Stories for Eye, Ear, and Muscles: Video Games, Media, and Embodied Experiences," in The Video Game Theory Reader, ed. Mark J.P. Wolf & Bernard Perron, (New York: Routledge, 2003), 129.

²¹ Rafael Lozano-Hemmer, *Bilateral Time Slicer*, Rafael Lozano-Hemmer, Accessed December 1, 2017. http://www.lozano-hemmer.com/bilateral time slicer.php.

juxtaposed with other former users. This is classified as narractivity—the development of a coherent narrative database through communal interactions.²²

A study of the signal realizes video as evoking the third person,²³ meaning a paradox is formed; the self can be mapped (or known) either internally or externally. Following the assertion by theorist Jean-Louis Comolli that the spectator is the one who invents cinema,²⁴ works like *Bilateral Time Slicer* is an example where users are able to invent their own video-based narratives. Elwell describes how this type of story-world formation is an example of transmedia storytelling.²⁵ It could be argued that this style of user-formed narrative is apparent in all signal-based interactives. However, I chose to look at Hemmer's because of its focus on the body, as well as its co-creative capacity.

I have now discussed two video sculptures and one interactive video work, however thus far I may have alluded that both can be classified as transmediated works. Is this analysis accurate? *Bilateral Time Slicer* does not contain any analog media, but by virtue of moving in an analog space, a representation of the self is presented in digital space, forming an identity feedback loop. Since interaction by the user in both spaces is required, Elwell might classify users' interaction in *Bilateral Time Slicer* as the formation of "the transmediated self." In contrast, Kessler's works require a viewer to enter the narrative on a metaphysical level through the act of looking. Since his works are passive, and do not permit bodily interactions from a user into the system, I believe

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²² Elwell, "The Transmediated Self," 234.

²³ Bodil Marie Stavning Thomsen, "Signaletic, Haptic and Real-Time Material," *Journal of Aesthetics & Culture* 4, no. 1 (2012). DOI 10.3402/jac.v4i0.18148

²⁴ Lisa Cartwright, *Screening the Body: Tracing Medicine's Visual Culture*. (Minneapolis: University of Minnesota Press, 1997), 6.

²⁵ Elwell, "The Transmediated Self," 241.

²⁶ Ibid., 243.

their label should remain as sculptures. They do not permit the formation of identity; however, they do uphold the best contemporary representation of the transmediated self that I have seen.

If Kessler's works are to form a commentary on western society but are not interactive, then can his narrative prompt individual identity reflection? The female mannequin's arm in *Evolution* (holding the iPhone) is moving based on physical gear. Every so often it abruptly forces the arm to move about. This calls direct attention to its video feed. This feed can be situated as a "metaphoric gesture" as it displays to the audience the vehicle for Kessler's metaphor. However, the arms movement may also be considered an "abstract gesture" in the sense that the iPhone's lens is pointing at what Kessler would most likely describe as discourse material.²⁷ "An analysis of phenomena thus enables us to formulate a 'transcendental logic' and a 'metaphysics of experience'."²⁸ It is here that Kessler's use of an unidentifiable mannequin and a ubiquitous iPhone may create a sort of subjective vision.²⁹ This establishes a metaphysical entry point to interject the spectator into the work's hybrid narrative. Through the utilization of transmedia, *Evolution* can evoke one to question their identity formation.

With a definition of the transmediated self, and some thoughts explored on identity, *Evolution's* formation of my imposed narrative can now be viewed through a more critical lens. Kessler is situating the mannequins as people who are in the act of forming their transmediated selves. This can be seen as a strong hidden message, or what Verbeek might call, a decisive or implicative

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²⁷ Marie-Laure Ryan, *Narrative across Media: The Languages of Storytelling* (Lincoln: University of Nebraska Press, 2004), 115-120.

²⁸ George A. Schrader, "Hegel's Contribution to Phenomenology," *The Monist* 48, no. 1 (1964): 24. URL: http://www.jstor.org/stable/27901535.

²⁹ Jonathan Crary, Techniques of the Observer: On Vision and Modernity in the Nineteenth Century (Cambridge: MIT Press, 1995), 16.

influence of technology.³⁰ Viewers cannot interact or interject identity into the work, but I believe it is avant-garde in the sense that it may be the first transmediated work that represents and questions the transmediated self through transmedia. I believe this is an interesting hidden narrative, but why should this all matter to the average viewer?

While reviewing Sartre, philosopher Lior Levy argues, "narrative-unity is necessary for a sense of self" and that "narratives serve as the self's immanent structure."³¹ Identity through the early web treated technology like masks that could guarantee that the user would stay anonymous, offering users to "go online" and assume new roles.³² This break from reality pushed against any sort of meshing of analog and digital modes. However, society seems to have worked through that hiccup as you can no longer go anywhere online without signing into a virtual representation of yourself. Rather than promoting anonymity, Facebook and even music apps like Spotify now directly favor the representation of analog identities into their virtual platforms. This offers computing communications that are seamlessly integrated and holistically transparent.³³

With the world becoming ever more connected, I believe it is important to step back and analyze the ways in which technology is mediating our existence. Works like Hemmer's are more direct in the formation of identity, only the effects are more local and internal. Even though Kessler's *Evolution* is not an interactive, it points at the transmediated self in a more meaningful way. Through playful metaphysical entry, it questions society at large, suggesting problematic avenues that might arise through our use of interconnected technologies. Verbeek notes how technology is a part of us now, and that by designing technology we are in effect designing humanity.³⁴

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³⁰ Peter-Paul Verbeek, "Beyond Interaction," ACM Interactions, accessed December 12, 2017. http://interactions.acm.org/archive/view/may-june-2015/beyond-interaaction.

³¹ Lior Levy, "Reflection, Memory and Selfhood in Jean-Paul Sartre's Early Philosophy," *Sartre Studies International* 19, no. 2 (2013): 98, DOI 10.3167/ssi.2013.190206.

³² Elwell, "The Transmediated Self," 234.

³³ Ibid., 235.

³⁴ Verbeek, "Beyond Interaction."

With society's exponential advancement of technology, I believe it has embedded the world within turmoil, both politically and ecologically. I mean this in the sense that we are collectively starting to lose sight of our analog roots. I believe Kessler's framing of technology in this light does a wonderful job at calling his primary global warming narrative into view. My meditative analysis of the transmediated self as the underlying narrative not only enhances the works meaning but in some ways it can be seen as the primary narrative system of both *Exodus* and *Evolution*. I side with Levy's statement that we not only mirror the past but also are continually "weaving the past into the present." In this paradigm of transmediation, I believe it is important to not only practice self-reflection, but also to reflect on past technologies that help form our identity.

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³⁵ Levy, "Reflection, Memory and Selfhood," 103.

bAd interactives

I want the viewers to be so absorbed by the work that they experience another level of mind. I expect them to share the kind of strong feeling I have for the material and, to my amazement, they sometimes do.

- Steina Vasulka, Buffalo Heads, 1995

To me, art is about finding new ways to communicate ideas with society through various media. Having arrived at a time where everything has been done before, I see new digital technologies as the avant-garde outlet for artists to utilize, dissect, highlight and/or subvert in order to extrapolate thought. Why create if not to add to the social ether? Early video pioneer Steina has a similar outlook, however she encourages self-reflection. ³⁶ Using this context as my entry point, I situate my thesis works below by thinking through the ways in which I can activate users to be critical of their experience.

During my studies, I realized that generating a narrative structure might permit cohesion between the various interactives while offering a platform for users to critically respond to their active involvement. By adding my own structure to the previously discussed projects, I situate my work within this narrative structure to allow user(s) to maintain a similar outlook of experience while transferring between interactives. Through an analysis of my thesis works, I explore the importance of the medium, participatory co-creation, and the ongoing need for a critical reception of embodied media.

³⁶ Woody Vasulka and Peter Weibel, ed. Buffalo Heads: Media Study, Media Practice, Media Pioneers, 1973-1990. (Cambridge: MIT Press, [no date]), 469-474.

My work is comprised of four interactives that explore different avenues in which the ever-connected technologies through which we live are forming our transmediated selves. After taking a course called "Media and Narrative", I was left with an unanswered question: can you have an interactive that is not situated as a game? This question initiated a multimodal investigation into establishing a narrative within my work. Similar to how Kessler complimented his work *Evolution* with the less-extensive *Exodus*, I establish how my smaller installations differ and how they come together to better instantiate narrative unity.



Questioning the volatility of memory in a digital age, *Selfie Station* offers a constrained iMac where users can explore the absurdity of media proliferation while also adding themselves to a communal databank of selfies (screenshots). By restraining the system to only a few preexisting OS X features, a live video feed of the users is presented as the desktop wallpaper. Over time, the current users' presence is gradually obscured by past selfies.

This installation is also poised to comment on the excess of digital images the average person now generates. Due to the localized nature of this work, users can relate to the previous users by means of the visual footprints that they leave behind. Just like any new digital device, this system starts out as a blank slate that situates users as participants in a surveillance system. Users

figure 5 figure 6



become more comfortable with the system over time as former selfies mask the live feed, diminishing they lose the sense of being surveyed (figure 5). I also believe that the ability to preview these former selfies serves as a collective consciousness, advising subsequent users on how they could interact. After the current user realizes that future users are able to look at them, in the same way, that they can preview past users, the perception of the interaction seems to change. The prime example is how after seeing that one can subvert by screen-shotting the screenshot previews (figure 6), future users would then try and replicate the effect.

Taking this collective consciousness a bit further, we can look at imPersonal Communication. This installation was conceived to exist as a comment wall for gallery visitors to leave their comments, as opposed to a physical book.

Located at the exit, users were given a phone number which they could then text their comments.

Relatively close to the title of this

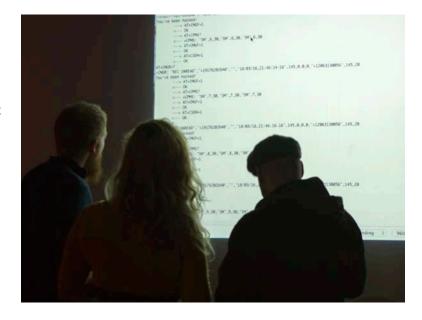
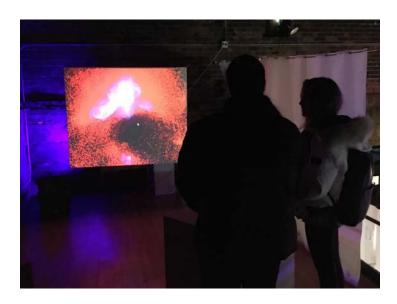


figure 7

work, users did in fact communicate less formally than they might face-to-face. There was a good deal of chatter going through my opening reception, but rather than comments on the show, the interaction ended up being quite random. People spoke in partial sentences and never formed any real dialogue with other users. However, similar to an online chat room where users cannot perceive the physical identity of the other users, this system shows just how much of the human condition can be lost through digitization.



This next installation offers a digital space for users to connect with one another on a more personal level.

Heartbeats? is an interactive interface that aims to question the digital representation of bodily functions.

When two new users strap into the biometric heart rate sensors they can immediately acknowledge that they are "seeing their heartbeats" through

the on-screen particle systems. This interpretation is of course a folly, but I find it quite interesting that modern culture is so mediated that we are starting to lose the ability to question the computational structures that represent our corporeal physiology. Similar to Lisa Cartwright's argument relating to medical film motion studies, this work can be seen as grounded in the western scientific traditions of measurement and physical changes through observation and interpretation.³⁷

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³⁷ Cartwright, *Screening the Body*, 8-9.

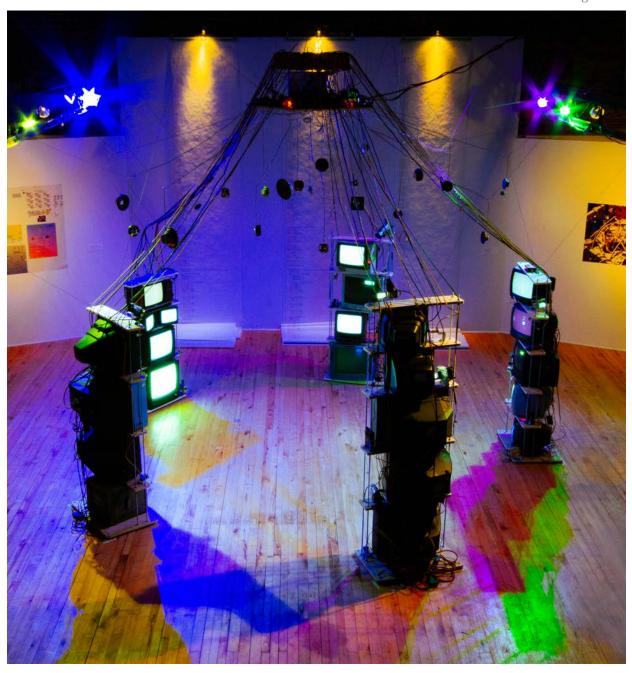
These three works examine different ways that digital tools enable identity formation: social through visual, social through aural, and the physiological optics of health. I am by no means claiming that these are the only categories of technological mediation, but rather situating them as constructs of identity formation through technology. As technology evolves, the way in which humans interact with the world changes. I grew up in an era where computers were isolated within schools and businesses, whereas everyone is now connected to the world through ubiquitous devices. I believe it is important to reflect not only on these technologies as tools but also on how these tools end up defining who we are and how we communicate.

I would argue that the critical reception of any interactive system lies in the trigger or the input. Unlike a painting that is static and often requires viewers to articulate meaning through extensive study of its history, I believe embodied media is the wave of the future specifically because it often needs very little instruction. Whether it is VR, an iPhone app, or an immersive installation, users seem to find relentless enthusiasm in consuming new forms of social and tangible computing interfaces. Whether it be a messaging system or a video game, the simple act of permitting people a space to form social feedback loops is what most digital developers bank on. This feedback loop prompts two questions: does increasing the interconnectedness of a system exponentiate social dialogue, and does actively participating in a system while observing others increase the articulation of the transmediated self? These questions represent my ambition behind the research and production of my immersive and co-creative installation below.

Simulated Sentience 2.0 is the primary interactive of my thesis show, no-w-here. The first version of this installation was constructed for only one user at any given time. This second version was triplicated to situate up to three users simultaneously. My desire to extend this work had several foci: expand the interactive capacities; intensify the interplay between analog and

digital modalities; to establish a co-creative network as a direct commentary on the transmediated-self. After introducing the work I cover my process and the utilization of antiquated technologies. Forming critical analyses of the media implemented will better situate my work within the transmediated self-narrative.

figure 9



This installation is comprised of five, human-sized monolithic structures. Cables going up diagonally tether them to a pentagon-shaped central hub that is suspended overhead. I refer to this hub as a "hive mind" as it has three independent systems that come together to form a unified interactive whole. Not only does this arrangement make for a more visually demanding presence than the first iteration, but it also is more suggestive of a unified system than when the cables were running towards a corner. Each of these five monoliths is comprised of analog sonar sensors, as well as consumer-grade analog CRTs (televisions) and camcorders. All of the hardware was arranged to stylistically from different monoliths, while also facing inwards to withhold a centralized sense of immersion.

This interactive was designed to give off a vibrant atmosphere while instilling a relaxed mood to entice user(s) to enter the space. I believe this permits less stress, allowing the user(s) to focus more on their exploration of space. The utilization of old consumer-grade hardware enhances nostalgic evocations while the upward connection of cables was to suggest a sense of cybernetic hybridity. While lighting is needed for capturing the form of the user(s), five different colors were used rather than unifying the installation with consistent lighting. Since each monolith has its own video distortion filters, different colored lighting was implemented to uphold a sense of varying identity amongst the five stacks.

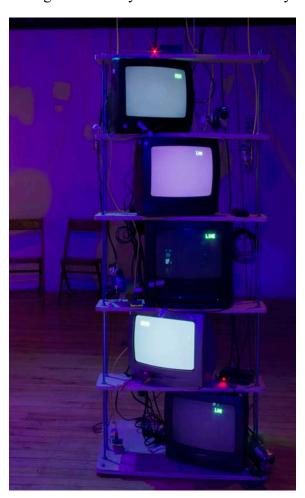
Even though each of these monoliths has the same hardware, it quickly becomes apparent that the system is not uniform once there is activation. These five video effects are generated by different computer vision parameters. For instance, monolith E (figure 10) splits the



figure 10

RGB color space of the video. As the active user approaches the sensor, the colors then converge back onto themselves. Each distortion is also synthesizing audio by different parameters. Each of these explorations requires First and foremost an interactive space for exploration, this installation permits as many opportunities for interaction as its visual complexity may suggest. The installation itself is running on three separate systems, mapped to the space through three layers. I will break down the importance of this later as I now want to establish how the system fluctuates based on its current number of users.

A single user at any monolith has the ability to activate any of the three layers at a time (of that



one monolith) that they are in front of. When any sonar sensor is triggered by proximity, the associated CRT(s) and camera(s) will activate, presenting distorted representation(s) of that user on the CRT(s). When a second person also enters, instead of both people activating their own stacks solely, they are also sharing their presence by mirroring their live distortion feed to other users. Since there are three levels of any given monolith, up to three users can be interacting with one another through the system. The assemblage of analog bodies generates an exquisite-corpse-like narractivity.

The monoliths themselves were designed to be various representations of bodies. The effort behind this was to allow a user to establish a

stronger metaphysical connection to each of the stacks. Besides varying the lighting, heights, and brand names, I strove to tap into the longtime-running function of these CRTs: cable TV. In the current era of flat screens and content streaming, I argue that these old tube TVs evoke a greater sense of global unity through their old days of broadcasting media. In the golden era of cable TV before the Internet, some might argue that cable transmissions were most people's primary connection to the rest of the world.

While it is not important for general interaction, forming a critical review of the system may serve to better understand connections to the transmediated self. For *Simulated Sentience 1.0*, I designed and fabricated two video switchers that were controlled by an Arduino microcontroller. Switcher A gates one of five video camera input signals that was then digitized and sent to the computer for manipulation through Max (MSP/Jitter). Switcher B handled the video output feed from the computer, sending the signal to the correct monolith where the activation was taking place.

As detailed above, I stated that I triplicated the original system so that up to three users could interact within *Simulated Sentience 2.0* at any given time. Having a top, middle and bottom sections is how this was accomplished. Each of the tiers is actually a mirror image of one another, operating on its own hardware. Each section is essentially stacked above the previous. This is so that each monolith seems to have the same distortion on each of the three levels. The co-creative capacity comes into play through the cross communication happening between the Arduino boards of the hive mind.

Data Scientist Jim Guszcza claims that "An algorithm's design should anticipate the realities of the environment in which it is to be used," and that "an algorithm's end users should have a sufficiently detailed understanding of their tool."³⁸ In *simulated Sentience 2.0*, I am tethering together three Arduino Mega's and three Mac's by integrating a decently complex algorithm. Sonar sensors calculate who is closest to which stack(s). This manipulates the system to gate the correct video feeds through all the system's six video switchers. In summation, users are able to freely interact while being offered a metaphysical reflection through communal narractivity.

My deconstruction of the system should now unveil its ability at forming co-creative space. I will now switch gears now and focus on the implementation of the medium. I propose using the same analysis of investigating as *Evolution*: establishing analog and digital lenses using their respective mediums. At the user level of *Simulated Sentience 2.0*, all of the hardware is analog-based, whereas the hive mind is digital. This situates an analog space that is captured by analog technology. It is digitized and manipulated before then converting back to an analog signal to be displayed on the analog CRTs. Even though this may be a ploy at semantics, I want to make the distinction between this work's utilization of technologies and that of Kessler's *Evolution* and Hemmer's *Bilateral Time Slicer*.

I specified before that I thought *Evolution* was better at representing the transmediated self (because of its use of transmedia) over *Bilateral Time Slicer* (which only implemented digital hardware). However, one could actively partake in the latter's interactive potential by actively forming the transmediated self. Is this to then say that there is no way at representing the transmediated self while actively creating it?

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³⁸ Guszca, Jim. "AI needs Human-Centered Design: The Intelligence is not in the Computer." Wired, May 2018, 2.

This convoluted question is precisely my reasoning for triplicating *Simulated Sentience 2.0*: it challenges one to partake in forming identity through a self-reflected gaze while simultaneously being offered to view others transmediating themselves on adjacent screens. Sartre establishes some clarity to this context: "I can not therefore direct my attention on the look without at the same stroke-causing my perception to decompose and pass into the background... We can not, I said then, perceive and imagine simultaneously; it must be either one or the other."³⁹

Simulated Sentience 2.0 strives to assimilate Evolution's ability at representing the transmediated self while also filling the void of Bilateral Time Slicer by actually implementing analog and digital hardware into the interactive. By offering a conundrum of the gaze I mean to amplify the complexity of identity formation. However, as a spectator surveilling others in the act of creating exquisite corpses, we finally might be able to fathom that this three-tier video assemblage may be a better representation of the transmediated self than even that of Evolution.

Since this analysis is focused on technological mediation, it may be worth revisiting the postphenomenological discussion by Verbeek to see where my work may be situated within his proposed rhetoric. Where *Evolution's* technology formed a "hermeneutic" relation to the world, *Simulated Sentience 2.0* does not seem to fit into any of the established "human-technology relations" of mediation theory. Verbeek instead suggests the label of "immersion"; the formation of
a smart environment with ambient intelligence. I agree with his notion that there is a lot of work
to be done at the intersection between interaction design and the philosophy of technology. He
claims that intersection is where new human-technology relations emerge, stating: "Technology
mediation is part of the human condition…Designing technology is designing humanity."⁴⁰

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³⁹ Sartre, Being and Nothingness, 347.

⁴⁰ Verbeek, "Beyond Interaction."

conclusion

Through this thesis, I established some terminology and initial questions as a basis to then deconstruct some contemporary installations as well as my own. My goals were to get a better understanding of the field I work within while testing the boundaries of the transmediated self as a narrative structure.

A quest for the meaning behind my practice led me through a study of new media. This permitted me to arrive at the more-specified realm of "embodied media" as an arena to focus within. Having nostalgia for old tech led me through a sort of media archeology, wondering where I can move forward from this juncture of analog and digital. By asserting that media and technology are extensions of ourselves, I can then uphold the realization that we are now a species that is transmedial. This, of course, is one of the primary assertations as to what art represents: a formation of identity.

In a state of flux, I situate transmediation's ability at forging identity through interactives to be a complex exercise. It is perhaps as complex as the formation of identity itself. However, this study was not to map out the full means of how we formulate identity, but rather to explore the potential of expanding our identity through interactives. Being assertive in seeking out media works allowed me to encounter Kessler's mechanical sculptures at the 2017 Whitney Biennial. This happened right at the apex of my graduate studies when I started meshing analog media with digital media. Being critical of his use of medium and narrative has granted me the extra incentives needed to continue my investigations into forming narractivities that are not based on game theory.

After these critical analyses, I then should revisit the question of what makes interactives successful. Is it all a focus on feedback loops? There can be no doubt that technology improves our life expectancy and overall healthcare, however, it is also obvious that most people are diminishing their overall health by spending too much time on devices. Even though digital technologies increase connectivity, I promote a proper balance so that losing the ability to connect more meaningfully in person is not lost. I would argue that exploring public interactives is not only healthier for the mind but also for the body. To me, successful interactives rest in the ability to break the barrier of disconnectedness that technology seems to have erected between individuals while instilling a positive sense of what technology can be.

Through attributing the transmediated self to my thesis works, it is still not clear if this experimental choice has instilled any greater sense of a conscious feedback loop or not. My smaller investigations were helpful at commenting on other niche areas while *Simulated*Sentience 2.0 successfully represented and activated the formation of this "transmediated self" by transmediating users through a work utilizing transmedia. I plan to continue exploring this realm to further the discourse of embodied media.

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