

**NOW FRONTIER**

**MICHELLE SYLVESTRE**  
**Bachelor of Fine Arts – Art, University of Lethbridge, 2017**

A thesis submitted  
in partial fulfilment of the requirements for the degree of

**MASTER OF FINE ARTS**

**In**

**NEW MEDIA**

Department of New Media  
University of Lethbridge  
LETHBRIDGE, ALBERTA, CANADA

© Michelle Sylvestre 2020

NOW FRONTIER

MICHELLE SYLVESTRE

Date of Defence: November 20<sup>th</sup>, 2020

Leanne Elias  
Denton Fredrickson  
Thesis Co-Supervisors

Associate Professor      M.Ed.  
Associate Professor      M.F.A.

Dana Cooley  
Thesis Examination Committee Member

Associate Professor      Ph.D.

Christine Clark  
Thesis Examination Committee Member

Assistant Professor      M.F.A.

Donna Akrey  
External Examiner  
McMaster University  
Hamilton, Ontario

Assistant Professor      M.F.A.

Mary Kavanagh  
Chair, Thesis Examination Committee

Professor      M.F.A., M.A.

## ABSTRACT

*Now Frontier* is an MFA Thesis exhibition that explores the tension between craft and contemporary digital technology as manifested in wearable technologies. Through research and creative production I investigate and problematize binary oppositions often associated with craft and contemporary digital technologies. Casting myself as a central character – time traveller and mad scientist – in these works allows me to interrogate and construct a *Time Machine Suit* utilizing electronics, craft materials, and my own labour in ways that narrate both an autobiographical and speculative futures.

## ACKNOWLEDGEMENTS

The success of my academic career belongs not only to myself but also to the many who supported, encouraged, and motivated me along the way. I would like to thank and acknowledge the unending support of my supervisors Leanne Elias and Denton Fredrickson. Their guidance throughout this journey has been an invaluable source of strength. I would also like to thank my committee members, Dana Cooley and Christine Clark for their thoughtful and crucial feedback. These four have truly been my *Dream Team* and have made this process an extremely rewarding one.

A special thanks to my external examination committee member Donna Akrey, and Mary Kavanagh for chairing my Thesis Examination. Thanks also to Niall Donaghy, Mary-Anne McTrowe, and Brent Coulton for their technical assistance, insight, and patience. Thanks to the faculty members with whom I have had numerous thoughtful conversations with: Anne Dymond, Glen Mackinnon, Josie Mills, James Graham, and Annie Martin.

I offer special thanks to those that supported my work financially during my MFA, including the Social Sciences and Humanities Research Council (SSHRC) through the Joseph-André Bombardier Canada Graduate Scholarship; the Queen Elizabeth II Scholarship, the numerous scholarships from the University of Lethbridge through Graduate Assistantships from the School of Graduate Studies (SGS), the Abbondanza from the Faculty of Fine Arts, the Graduate Students Association (SGS) Travel Award, the (SGS) Dean's and Tuition Scholarship (SGS) and the Province of Alberta through the Alberta Foundation for the Arts' Visual Arts & New Media Project Grant.

I would like to express gratitude to those amazing people in my academic cohort for their constant pep talks, insights, and distractions that helped me form the work into what it has

become: most notably Nicole Riedmueller, Miguelzinta Solis, Anna Nikolova, Tyler Stewart, Amber Morrison Fox, and Harley Morman.

I am immensely and forever thankful for my family and friends for their generous and ongoing championing of my work, for being my confidants, my emotional and intellectual pillars, and other countless acts of support over many years: Scott, Fleur, Katrina, and Sabrina Sweetman, my parents Debbie and Larry Craig, and Tony Sylvestre, and Grace Wirzba. I could not have completed my MFA without you.

And finally to my Grandmother, Jean Gooding, for instilling a sense of hard work, pride in the handmade, independence, and confidence in my ability to accomplish what ever I put my mind to.

## TABLE OF CONTENTS

Abstract .....	iii
Acknowledgements .....	iv
Table of Contents .....	vi
List of Figures .....	viii
1. Introduction .....	1
2. Cultural and Historical Context .....	6
2.1 Technology.....	6
2.1.1. Gendering Technology .....	7
2.1.2. Futuristic .....	9
2.2. Wearable Technology.....	11
2.2.1. Control of Body .....	12
2.3. Craft.....	13
2.3.1. Sentimentalizing Nostalgia .....	18
3. Methodology .....	21
3.1 Humour and Critical Design .....	21
4. Project Statements: The Work .....	24
4.1 <i>Time Machine Suit</i> .....	26
4.2 <i>Time Machine Suit Launch Video</i> .....	29
4.3 <i>Failed Experiments and Iterations</i> .....	30
5. Conclusion: .....	32
Works Cited .....	34

Appendix A: Exhibition Documentation..... 37

LIST OF FIGURES

Fig. 1: *Time Machine Suit* ..... 37

Fig. 2: *Time Machine Suit* detail..... 38

Fig. 3: *Time Machine Suit* detail two..... 39

Fig. 4: *Time Machine Suit* detail three..... 40

Fig. 5: *Time Machine Suit* exhibition view ..... 41

Fig. 6: *Time Machine Suit Launch Video* (video still)..... 42

Fig. 7: *Time Machine Suit Launch Video* (video still two)..... 43

Fig. 8: *Failed Experiments and Iterations* long exhibition view..... 44

Fig. 9: *Failed Experiments and Iterations* detail..... 45

Fig. 10: *Failed Experiments and Iterations* detail two..... 46

Fig. 11: *Failed Experiments and Iterations* detail three..... 47

## 1. INTRODUCTION

I take a look around my bedroom-turned-half-studio. It has been almost four months since the University of Lethbridge had to close its doors in response to the COVID19 pandemic.<sup>1</sup> The materials surrounding me, besides bedroom furniture and personal paraphernalia, are a diversity of textiles, microcontrollers, and electronic components. My attraction to these seemingly divergent objects is nothing new. A yearning for tactile experiences through textiles and craft can be traced back to the time in my youth spent by my Grandmother's side on the farm. As a young adult, a fascination with contemporary digital electronics began when I was introduced to the sleek, sterile electronic designs in Nagoya, Japan.<sup>2</sup> When I returned to Canada eight years later, and attended the Bachelor of Fine Arts: Art Studio program at the University of Lethbridge, my art practice became grounded in the materiality and processes of handmade objects reverberating from my experiences as a youth in rural Alberta. Internal questioning about how to situate my art practice in the contemporary while mediating between my subjective experiences and collective concerns became an ongoing internal dialectic. Bringing these two interests, technology and craft, together as investigations and experiments with the gendering, process, and materiality in my artistic research and creative production became a recurring and formative element.

---

<sup>1</sup> On March 15<sup>th</sup> the Government of Alberta announced that in-person classes would no longer take place at post-secondary institutions. At the time of writing, July 8<sup>th</sup> 2020, in Alberta there are 608 active cases, 46 in the last 24 hours, there have been 8,482 cases in total and 158 deaths to date. <https://www.alberta.ca/covid-19-alberta-data.aspx>  
Canada has had 106,167 cases, and 8711 deaths to date. <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection.html>

<sup>2</sup> Before this I had little to no interest in contemporary technology and electronics. Leaving my “pay as you go” flip phone behind, the only electronic I arrived in Japan with was a digital camera purchased just days before my departure. While in Japan I became used to a more automated lifestyle with a number of the electronics taking care of many of my day-to-day needs.

Starting with historical and contemporary theories, combined with subjective experiences, I will examine the position of craft and digital technology. By combining the materials and processes designated to craft and technology the associations are problematized as complementary rather than solely binary approaches in my artistic practice. Given progress is often measured through technological advancement while craft is largely considered antiquated, what might be some strategies for positioning work which weaves these seemingly mutually exclusive approaches? In contemporary terms, craft I employ in *Now Frontier*<sup>3</sup>, is largely ignored as technology today. In the following chapters, I will examine the ingrained cultural and historical associations society has towards the objects, processes, and materials of craft and technology. Further, I investigate through the manifestation of my artwork, whether craft and technology can be used as a tool to communicate something other than their diametrical differences?

In *Speculative Everything* Anthony Dunne and Fiona Raby offer the idea of design as a tool to generate ideas rather than solely being a process to produce objects. Coming from a science and technology background Dunne and Raby reference literature, fine art, cinema and social sciences to discuss possible futures and better understand the present.<sup>4</sup> In their science and technology roots Dunne and Raby witnessed the intent of many technology companies attempts to pin down “The Future” in hopes of taking advantage of any emergent trends.<sup>5</sup> However, these future predictions routinely end in failure. Instead of the commercial based predictions, Dunne and Raby are more interested in using “the idea of possible futures” as a tool to imagine and

---

<sup>3</sup> Knitting, quilting, embroidery, cross-stitch, sewing, and weaving in its historical context were considered technological advancement, today however, many people would not classify it as technology.

<sup>4</sup> Anthony Dunne and Fiona Raby, *Speculative Everything: Design, Fiction, and Social Dreaming* (MIT press, 2013). P. 2-3.

<sup>5</sup> Ibid. p. 2.

discuss the futures people desire, and the ones they wish to avoid.<sup>6</sup> Using a similar strategy of imagining, *Now Frontier* asks the audience to follow the *what-ifs* and playful approaches of an isolated *time traveller* into known and unknown territories to explore and problematize the associations often designated to craft and technology.

Science fiction offers a plethora of time travel narratives. Stories of time travel often centre on journeys to the past to rewrite history or to dystopian futures (which in turn usually requires a journey to the past to prevent it from happening). H. G. Wells popularized the concept of time travel in 1895 in *The Time Machine*. Well's choice to reference time travel as a mechanical process, opposed to a metaphysical experience, set the stage for numerous time travel stories thereafter to focus on time machines as a mechanical machine capable of propelling humans forward and backward in time. What if craft, not just technology, were considered a crucial building block of time machines? What if time machines were wearable protective coverings akin to an astronaut suit or deep diving suit?

One strategy of investigation that I have employed in *Now Frontier* is that of performance. In the publication *The Missing Body: Performance in the Absence of the Artist*, performance artist Cindy Baker challenges the definition of performance art. Baker's research lead her to conclude that the most fundamental definition of performance art "requires the presence of a body in space over time – physical, rather than just conceptual or figurative presence".<sup>7</sup> She goes on to question this definition in four distinct ways. Starting from the idea

---

<sup>6</sup> Ibid. p. 2-3.

<sup>7</sup> Cindy Baker, "The Missing Body: Performance in the Absence of the Artist" (University of Lethbridge (Canada), 2014).

that performance art does not always have to exist in the artist's body, Baker presents the following methodologies as performance work:

- “Engaging or hiring other people to perform.
- Encouraging audience transgressions in the presentation space which create, activate, or complete the artwork.
- Creating object-based artworks which are stand-ins for their own body.
- Hiding their body inside the work”.<sup>8</sup>

In *Now Frontier* I perform autobiographical and speculative futures through the manifestation of wearable technologies that employ Baker's third definition, “creating object-based artwork which are stand-ins for their own body”<sup>9</sup>. This category is designed to allow the artist to conceptualize “new ways of knowing, and avenues to deeper connection with the artists, the work, and the ideas within”<sup>10</sup> from the audience's perspective. Throughout this journey I ask the audience to imagine, accept, and join together in proposed unwonted circumstances. My use of Baker's third definition directly addresses the audience as I ask for collective participation in what has been deemed beyond our current technological capabilities. If I have to put a name to it, modern conventions would most closely consider it *Time Travel*, and I would be the *time traveller* as well as the *mad scientist*.

Three works will be presented in *Now Frontier's* exhibition as a representation of the amalgamation of my MFA research and creative production. The first piece is the *Time Travel Suit* which is constructed using craft materials and processes along with micro-controllers, sensors, and materials often used in technology. Employing Baker's third definition of

---

<sup>8</sup> p. 5

<sup>9</sup> Baker, "The Missing Body: Performance in the Absence of the Artist." P. 6.

<sup>10</sup> Ibid. p. 6.

performance, the audience is asked to contemplate the absence of a body within the *Time Travel Suit* on display, the display of the garment also references the once presence of a body. The head piece, or travelling cap, is constructed of sewn sections built out of a variety of fabrics and micro-controllers to form the *traveller's recording module*. The main body of the suit is constructed out of textiles and repurposed materials providing a contrasting transition between soft textures and smooth surfaces. The body is also embedded with multiple micro-controllers which each have a unique purpose crucial to the functioning of the *time traveller suit*. The time traveller must follow the dispersed embroidered instructions adorned throughout *the suit* and adhere to the warning labels alerting the wearer to potential dangers. The second piece is a video documentation of the *Time Travel Suit* in use. This video is positioned in the exhibition space strategically so the audience cannot at once see the physical suit and watch the video at the same time.<sup>11</sup> The third piece is an installation which journals the prototypes and iterations of the mad scientist's time travel experiments and the adventures of the time traveller once the suit was activated. This support paper and exhibition considers diverse academic theories while working within a malleable visual arts methodology. Methodological strategies include performance, humour, and critical design.

---

<sup>11</sup> Unfortunately, due to the COVID 19 pandemic this feature was not realized as expected as there was no physical viewing of the exhibition.

## 2. CULTURAL AND HISTORICAL ASSOCIATIONS

### 2.1 TECHNOLOGY

*When I moved to Japan my largely rural upbringing came into sharp contrast to the technologized city of two million inhabitants. As I ran my hands over the smooth, cold aluminum surfaces of the latest electronic products, a transcendent experience occurred. They obeyed my commands, usually without complaint, and took care of numerous needs and wants, many of which I previously had to manage myself.*

*In the domestic sphere there were electronically controlled bathtubs capable of being programmed to run the water at a designated time and hold it at the perfect temperature; our toilet came equipped with multiple functions, including warming the seat (a must have in winter), and our apartment parking was an automated multi-story system. Outside the home I experienced Shinkansens (Bullet train) to kaiten sushi (conveyor belt), each giving a sensation that most things could occur through automation at an increased speed, and more efficiently.<sup>12</sup> These elements were, to me, signifiers of a utopian futuristic lifestyle.*

The word technology is often attached to other words to complete its meaning; material technology, recycling technology, computer technology, information technology, digital technology and so on. In the last several centuries technology, at its simplest, is the application of scientific knowledge for advancement. In the West, the notion of technological advancement most commonly refers to new machines, faster and more efficient methods of production and mechanization.<sup>13</sup> In this chapter I will discuss technology and how it is often positioned male, innovative, and future oriented. Conversely, in the chapter titled *Craft*, I will discuss how craft is often positioned in opposition to technology, as female, antiquated, and past oriented. In

---

<sup>12</sup> In 2005, the World Expo came to the area where I lived. The main theme “Nature’s Wisdom”, a focus on environmental issues was coupled with demonstrations of advanced technology and future utopian possibilities. The Linimo, Japan’s first maglev train service, was built as a direct link from Nagoya to the World Expo site and I was lucky enough to obtain tickets for it’s maiden voyage.

<http://www.expo2005.or.jp/en/whatexpo/index.html>

<sup>13</sup> Technological advancement is generally thought of as progress that brings positive changes however, this assertion is often a fallacy as progress often leads to neutral and negative changes.

*Material and the Promise of Immaterial*<sup>14</sup> Ingrid Bachmann questions the binary associations designated to craft and technologies. Why, Bachmann asks, “is weaving considered antiquated, artisanal, slow, gendered female? Conversely, why are computers considered fast, new, state of the art, virtual, gendered male?” Bachmann’s questions are especially fruitful upon further examination of craft’s role in early technological advancement, considering technology and craft are quite often pitted against each other.<sup>15</sup> In fact, the word *technology* is a combination of Greek words *technē* meaning art and craft, with *logos* meaning word and speech. In Greek discourse technology referred to fine and applied arts. Despite the origins, technology is often thought of in connection with the rapid science and communication technological developments of the 20<sup>th</sup> and 21<sup>st</sup> centuries. This chapter will outline some of the broad histories and theories surrounding technology and how this led to the associations often assigned to it today.

### 2.1.1. GENDERING TECHNOLOGY

Progress has often been measured by technological innovation<sup>16</sup>. Accompanying technological developments there has often also been a recurring moral panic. This moral panic stems from not just from threats of technological dystopia and loss of control, but is also derived

---

<sup>14</sup> p. 25

<sup>15</sup> The Jacquard loom, invented in 1801 was considered textile technology. It was made up of a system of punch cards that stored and processed information for the automated loom. This technology was important to computer history as it was used to translate into the first computer punch cards to instruct a machine to perform automated tasks.

Ingrid Bachmann, "Material and the Promise of the Immaterial," in *Material Matters: The Art and Culture of Contemporary Textiles* (YYZ Books, 1998). 27.

<sup>16</sup> As mentioned in an earlier footnote, progress is often a fallacy. While it is largely positioned as a positive movement toward a utopian future, progress also has destructive consequences. Increased pollution, dehumanizing work conditions, intensified stress, and reduced leisure time, to name a few, can also be attributed to progress. Richard Kazis, "Turtles and Trains: Technology and the Pace of Change," ed. Mackenzie Art Gallery Walter Phillips Gallery (Banff, Regina: Walter Phillips Gallery, 1988). p. 8-10.

from notions of whether women can remain “uncompromised” while using *high tech*.<sup>17</sup> For example, when the telegraph became commonplace media critics and popular culture texts condemned what they saw as naïve “talkative women” engaged in “frivolous electrical conversations” through this device<sup>18</sup>. Women with technical ignorance were depicted as *good* while women using this new technology were portrayed as eventually needing to be saved and protected from it<sup>19</sup>. In *High Tech or High Risk: Moral Panics About Girls Online*, Justine Cassell and Meg Cramer argue: “The moral was that women’s use of men’s technology would come to no good end”.<sup>20</sup> Throughout their article Cassell and Cramer trace the invention of communication technologies such as the telephone, Internet, and social media. In turn each technology was praised for use by men whereas when used by women a crisis of perceived morality occurred and continues to occur.

The fact that it was deemed morally risky for women to use and be knowledgeable about technology comes as little surprise given “Women are largely absent from institutions, networks and structures which determine where and when technological applications will be developed, and how the potential of these new media will be described”.<sup>21</sup> Although there have been some improvements since this declaration made in 2001, this statement still holds true almost twenty years later. Conceptualizations of the future and future technologies are built on past

---

<sup>17</sup> Justine Cassell and Meg Cramer, “High Tech or High Risk: Moral Panics About Girls Online,” in *Digital Youth, Innovation, and the Unexpected*, ed. Tara McPherson (Cambridge: MIT Press, 2008). 54.

<sup>18</sup> Ibid. 59.

<sup>19</sup> Ibid. 59.

<sup>20</sup> Ibid. 59.

<sup>21</sup> Nancy Paterson, “Cyberfeminism,” in *Mediaworks: Nancy Paterson* (Surrey: Surrey Art Gallery, 2001). p. 61.

constructions. It is no surprise then that these early claims of *men's technology* became the foundational architecture and practice in the development of digital technology used today.

### 2.1.2. FUTURISTIC

Approaching the peak of modernism, just months after the Second World War, tension between the United States and Soviet Union led to an age of anxiety. This anxiety manifested into hope for the future through the development of technological innovation and the imagined possibilities of a future utopia.<sup>22</sup> Innovations in material and computational technologies were borrowed from the militarized world, and space race. In short order, these industrial technologies became repurposed into everyday life, effectively spawning reimagined clothing, environments, and the body fit for a utopian future.<sup>23</sup> At the time, science and technology were perceived as the progressive tools advancing and shaping the future for the better. Many imaginings were centered around providing protective roles for the body and domestic dwellings. For example, in response to the atomic anxieties, many proposals for clothing tackled the problem of protecting the body against harsh conditions including radiation, and caustic chemicals imagined as a possible future. Synthetics, electronics, and smooth designs became signifiers for future existence.<sup>24</sup> Out of this milieu, scientists Manfred Clynes and Nathan Kline coined the term cyborg (cybernetic organism) in 1960, the term cyborg described an intimate relationship between human and machine. As the new frontier of space exploration was on the horizon this

---

<sup>22</sup> Jane Pavitt, *Fear and Fashion in the Cold War* (V&A Publishing, 2008). p. 8.

<sup>23</sup> The innovative technologies offered to women centered on making domestic chores easier and more efficient or, alternatively, beauty products. Randy Lee Cutler, "Remapping the Terrain," in *Mediaworks: Nancy Paterson* (Surrey: Surrey Art Gallery, 2001). p. 23.

<sup>24</sup> New materials and advanced technologies such as fibreglass, mylar, mouldable plastics, and commercially-available computers invented during this time were adopted, effectively altering the imaginings of what the future would be. Pavitt, *Fear and Fashion in the Cold War*. 44.

relationship would allow the body to survive unexpected environments. Technological enhancements close to or attached to the body were imagined as allowing for the body to move beyond its biological limitations.

The theme of technology as a promising uncharted territory ripe with possibilities continued through the next decades. Approaching the 1980s, the new frontier rhetoric moved past the idea of mere physical enhancement to the body and was coupled with promises of an immaterial existence through technology. While industrial technological progress was mostly concerned with automating physical labour, contemporary technological progress is vastly invisible. In 1984, William Gibson coined the term *Cyberspace* to describe a virtual realm separate from the *meatspace* taken up by the body. Bachmann explains, “The rhetoric around digital technologies is infused with the utopian promises of deliverance and progress – the promise of another frontier, an original uncharted space, virgin territory, a clean slate, another chance to “get it right””.<sup>25</sup> Cyberspace made promises of immateriality and transcendence, separating mind from body as the future conditions of our daily lives.

Developing concurrently with the utopian promises of technology were dystopian fears. It could be said that we are at once fascinated and proud of our technological advancement while also being distrustful and nervous about unknown possibilities. Although society largely understands that technology is not neutral, the promise of technological advancement continues to seduce us despite the pessimistic undertones.

---

<sup>25</sup> p. 24.

## 2.2 WEARABLE TECHNOLOGY

In recent years, wearable technology has exploded in the marketplace. The years 2014, 2015, and 2016 each were declared “the year of wearable technology.”<sup>26</sup> And, while this may give the impression of wearables being a relatively recent development, wearable technology has actually been around since the 1960s. In the beginning, wearables were often bulky, awkward to wear, and at times detrimental to the wearer's body. Edward Thorp and Claude Shannon’s *Roulette Wheel Predictor*—created in 1960 and considered by many to be the first wearable computer—had issues with being visible on the wearer and often broke due to its delicate nature.<sup>27</sup> The progress of wearable technology continued over the next decade, but no real significant developments took place until the 1980s.<sup>28</sup> The lineage of wearable technology has numerous and diverse streams depending on application, stemming from military, medical, fashion, art, design, drama, and music.<sup>29</sup> At its broadest definition wearable technology embraces multiple objects with and without electronic capabilities that are attached to the body rather than objects

---

<sup>26</sup> Wissinger gathers these declarations from Forbes, The Guardian, and Factor Tech. Elizabeth Wissinger, "Wearable Tech, Bodies, and Gender," *Sociology Compass* 11, no. 11 (2017). p. 1.

<sup>27</sup> The *Roulette Wheel Predictor* worked technically and improved the odds of predicting the outcomes of the roulette wheel, however, the construction of it had multiple problems. The wires broke during use which required the user to frequently leave the casino to repair it. Also, at times other casino players and observers were noticeably startled by the earpiece sticking out of the wearer’s ears which also resulted in the need to leave the casino to avoid any more unwanted attention.

<sup>28</sup> A performance artist, Stelarc, created physical body enhancements initially intended as a semi-permanent addition to his body. *The Third Hand*, a wearable technology which was completed in 1980, was used as a performance device instead as the weight and irritation to his skin from electrode gel became too much to wear constantly.

<sup>29</sup> In 1994, Steve Mann, considered to be the *father of wearable computing*, defined wearable technology as having three components, is worn, not carried, in such a way as it can be regarded as being part of the user, it’s user controllable, not necessarily involving conscious thought or effort and it operates in real time – it is always active and be able to interact with the user at any time. Wissinger, "Wearable Tech, Bodies, and Gender." p. 4-5.

that are hand held. This definition of wearable technology therefore could include everything from the common brassiere to bio-sensing smart textiles. *Now Frontier* considers these origins and constructs wearable technology as objects with electronic capabilities that are worn close to and/or on the surface of the skin, where they detect, and analyze, and, at times, display information concerning the body.

### 2.2.1 CONTROL OF BODY

For many media critics and theorists wearable technology is seen as a push back to the promises of immateriality and transcendence separating mind from body. Through contemporary wearable technology the body was reengaged in the machine-human interface discourse, effectively spurring debates concerning technology, bodies, gender, and identity. Wearables are physical objects that rest in the sphere of the intimate as they are directly in contact with the user's physical body and constantly active in detecting and analyzing information from the body. Using technology to view oneself and control our bodies<sup>30</sup> through digital data gathering or *self-quantification* concerned some feminist theorists while other feminist theorists, such as Judith Butler, Lisa Cartwright, and Donna Haraway, saw a possibility for the disruption of the traditional categorizations of gender, sex, body and mind<sup>31</sup> and communicated optimistic notions of the biological body intermingling with technology. While others, such as Elizabeth Wissinger, a professor of sociology, stresses that data gathering should be viewed as twofold. Wissinger stresses that although data gathering through the use of wearable technologies can offer

---

<sup>30</sup> For example, trackers placed on the body to detect and create data such as daily steps forces the wearer to interpret oneself as data while also encouraging the wearer to employ more control over their body to optimization of higher standards.

<sup>31</sup> For example, Donna Haraway discusses the *cyborg* as existing in a post-gender world therefor collapsing the traditional gender inequalities.

empowerment for oneself, data has the potential to become the new "oil", for corporations, this could mean a "potentially endless renewable resource rooted in human biology and interaction".<sup>32</sup> Isabel Pedersen's 2013 book *Ready to Wear* considers wearable technology somewhere in the middle of "media you carry" and "media you become".<sup>33</sup> Pedersen believes in critiquing technology at its inception before it becomes mainstream and therefore have the chance to reinforce negative conditions. As an example, since men dominate Silicon Valley, wearable technology for women is often designed based on biases about what women want and what society wants them to be. When these products are released under these existing structures they enable a gender bias and reinforce an inequality. This often positions wearable technologies between two logics, *techno-utopia*<sup>34</sup> and *techno-enslavement*.<sup>35</sup> If wearable technology could leave past structures and architecture behind such as the gender bias and inequality, what would the next iteration of human-machine interface look like? Through the practice of critical design and employing humour *Now Frontier* conceptualizes alternative possibilities.

### 2.3 CRAFT

*It was not unusual for the extended family to gather together on Grandma and Grandpa's farm. Typically, but not always, there would be a task to complete. For the females these tasks were centered around the domestic sphere; picking and shelling peas, canning, baking pies or to*

---

<sup>32</sup> Wissinger, "Wearable Tech, Bodies, and Gender." 5.

<sup>33</sup> Pedersen considers "media you carry" as smart phones, memory sticks, and tablets and "media you become" as devices embedded in the body and considers current wearable technology as existing somewhere between the two states. Isabel Pedersen, *Ready to Wear: A Rhetoric of Wearable Computers and Reality-Shifting Media* (Parlor Press Anderson, SC, 2013). "Ready to Wear" p. 4

<sup>34</sup> Techno-utopia is the idea that technology can ultimately make life better and solve the world's major problems.

<sup>35</sup> Techno-enslavement is the idea that technology is inherently bad and used to subvert and control.

*support the last push during harvest. The males were responsible for running the large farm equipment, working in the quonset and field or mowing the grass*<sup>36</sup>.

*Watching my Grandma create, stitch, and mend in her sewing room in between other farm responsibilities, was a common activity for me. I studied her as she sewed, stitched, and mended several garments. Already at a young age I had developed a deep bond with craft. Looking at pictures of family members wearing attire my Grandma made years before is a comforting form of nostalgic remembering.*

Craft has an extensive entangled history and carries with it a variety of associations from pottery vessels to basketry, metal works, to fibre objects, to name a few. The definition of and associations assigned to craft have been in constant flux due to the breadth of materials, approaches, techniques, and applications which compromise this knotted field practice. The associations of craft for one person may be completely different from how another conceives of craft. Nevertheless, the history, associations assigned, and evolution of craft affect what assumptions are made and unmade when craft is encountered. According to James H. Sanders in *Moving Beyond the Binary*, “Neither art nor craft can ever be separated from ideology or interpretive frameworks”.<sup>37</sup> In *Now Frontier*, I am exploring the associations often designated to craft under the conditions of modern and contemporary history, everyday life, and art. Further, I will be using these associations to emphasize and problematize the binaries between craft and contemporary digital technology.<sup>38</sup>

---

<sup>36</sup> As an adult, before I was aware of feminist movements, I rebelled against the gender assigned tasks in my youth by taking up *masculine* hobbies such as pipe and cigar smoking and collecting, motorcycle riding, firearm competitions and hunting.

<sup>37</sup> p. 91.

<sup>38</sup> Challenging the binary associations of craft/fine art and craft/technology have been a recurring theme, at least since the Victorian era. Craftsperson William Morris revived the traditional techniques of handmade objects spurring the Arts and Crafts Movement. Morris promoted reform by questioning the damaging effects of the dehumanizing industrial production of objects while also championing a higher intellectual and social value for craft. Years later, largely influenced by Morris’s ideals, Walter Gropius, founder of the Bauhaus, advocated for the boundaries separating fine arts and applied arts, and art and life to be

During the rise of modernism in North America, the compartmentalization of artist, designer, architect, and craftsman in art schools was standard practice.<sup>39</sup> It would not be until the mid to late-1940s that institutions would start blurring the genres of craft and fine art.<sup>40</sup> Even then, especially in the West, all levels of the fine art institution consciously enforced the division of craft and fine art to maintain the traditional hierarchy of institutional fine art.<sup>41</sup> In the 1960s and 1970s feminist artists began to dispute the systematic exclusion of craft traditions produced by women in the domestic sphere from art institutions. In other words, craft held personal meaning and gender construction as it was, directly or indirectly, related to domestic activity.<sup>42</sup> Some feminist artists used craft to bring *women's work* into the institutional framework in an attempt to move it from unvalued *kitsch* to valued *art*.<sup>43</sup> In 1970, Carol Hanisch coined the phrase the *personal is political* to describe the linkage between the private and public oppression

---

broken down. He positioned crafts as a satisfying alternative to “artificial luxury” brought on by industrial capitalisation. Lauren Weingarden, "Aesthetics Politicized: William Morris to the Bauhaus," *Journal of Architectural Education* 38, no. 3 (1985).

<sup>39</sup> Early in the 20<sup>th</sup> century craft, with the exception of ceramics which was seen as a subset of abstract sculpture, was relegated to makers who usually worked in single mediums rather than being considered a fine art. Tanya Harrod, *Craft: Documents of Contemporary Art* (London, Cambridge, MA: Whitechapel Gallery and The MIT Press, 2018), 13.

<sup>40</sup> Studio Craft flourished after World War Two in North American, British, and Eastern European countries and while institutions began to support a variety of genres, anyone engrossed in studio craft was deeply aware of the division between the “craft world” and “art world”. Ibid. 14.

<sup>41</sup> Ibid.

<sup>42</sup> Joyce Wieland's *Reason Over Passion* (1968), used craft (quilting) as medium and content to challenge the hierarchy of art and comment on the systematic exclusion of craft traditions by women in art institutions. The hierarchy was made apparent when an art critic commented “Joyce the housewife filing the gallery with pillows and quilts”. Joan Sloan, "Joyce Wieland: Life & Work," Sara Angel, Art Canada Institute <https://aci-iac.ca/art-books/joyce-wieland>. 26.

<sup>43</sup> The craft associated as *women's work* was usually referring to stitchery or needlework such as embroidery, quilting, sewing, knitting and crochet and categorized “female techniques”.

of the female gender.<sup>44</sup> This phrase gave weight to many of the feminist artists at the time that sought to give validity to previously degraded and devalued experiences and processes.<sup>45</sup>

Conversely, other feminist artists rejected craft as a form of domestic oppression associated with domestic chores. These views of craft lead to a large population of women rejecting the learning of craft as a defiant act against oppressive patriarchal structures and values. As a result, the next generation born in the 1980s and 1990s, to a great extent, was not taught craft skills. Thirty years later, feminism spawned a revival of craft. For some, craft was taken up as a conscious choice to reengage with the processes and materials rejected by the previous generation, while others, deliberately separated themselves from the perceived negative associations<sup>46</sup> to craft, which was still felt by many to exist.<sup>47</sup>

*Can't/Won't* (2013) by Allyson Mitchell and Deirdre Logue share in some of the philosophies of the 1990s and 2000s feminist's reengagement of craft as a conscious personal choice. Mitchell and Logue employ crafting knowledge they picked up from online videos to produce four crocheted banners, each bearing a different slogan—*WE CAN'T COMPETE, WE WON'T COMPETE, WE CAN'T KEEP UP, WE WON'T KEEP DOWN*—to protest the dearth of representation of marginalized groups in the art world. Logue and Mitchell explain the concept behind these slogans and stitched work:

“We won't compete. Because of how gender, race and selected homophobia operate in the art world we propose these slogans and ask the following questions:

---

<sup>44</sup> Carol Hanisch, Shulamith Firestone, and Anne Koedt, "Notes from the Second Year: Women's Liberation," (1970). 76.

<sup>45</sup> Jayne Wark, *Radical Gestures: Feminism and Performance Art in North America* (Montreal: McGill-Queen's University Press, 2006). 62.

<sup>46</sup> Tanya Harrod describes an interview with Agnes Martin in 1995 wherein Martin negatively denies any reading of her paintings with the craft of weaving. See Harrod, *Craft: Documents of Contemporary Art*. 14.

<sup>47</sup> Ricia A Chansky, "A Stitch in Time: Third - Wave Feminist Reclamation of Needled Imagery," *The Journal of Popular Culture* 43, no. 4 (2010). 682.

Why would you *want* to be a winner in this hierarchical structure? and How do we both resist and reconcile our participation in this oppressive system of institutions, commerce, fame and vocation?"<sup>48</sup>

It is no coincidence that craft was utilized as the medium to carry these messages. Logue commonly uses domestic objects and spaces<sup>49</sup> as protest to capture, among other things, the juncture where art and the everyday intersect. Mitchell employs reclaimed textile and abandoned craft to investigate contemporary notions of autobiography, sexuality, and the body. Through their art practices, Mitchell and Logue actively and continually ask the question, how do feminists overcome inequalities or become empowered without re-deploying male binaries? Josie Mills explains "they are pointing out sexist language and structures but also shifting the way they work to oppose the negative, competitive notion of striving for lone success and climbing over others to get there".<sup>50</sup>

Although encouraging ripples of these movements and works can be felt throughout the contemporary art world today, as evidenced by the inclusion of the concept of *the personal is political* and *the everyday* in many conceptual artists practice<sup>51</sup>, traditional women's craft remains, to a great extent, marginalized in fine arts, labeled kitsch, and gendered as a female

---

<sup>48</sup> Allyson Mitchell and Deirdre Logue, "We Can't Compete," in *Complex Social Change: Teaching, Performing, Exhibiting, Designing, Mapping* (Lethbridge: University of Lethbridge Art Gallery, 2013-4). 69.

<sup>49</sup> The Feminist Art Gallery (FAG), an anti-art gallery co-founded by Mitchell and Logue in 2010, is run out of their backyard garage.

<sup>50</sup> Josephine Mills, "We Can't Compete a Fag (Feminist Art Gallery) Satellite Project," in *Complex Social Change: Teaching, Performing, Exhibiting, Designing, Mapping* (Lethbridge: University of Lethbridge Art Gallery, 2013-4). 64.

<sup>51</sup> Mireille Perron, "Common Threads: Local Strategies for Inappropriated Artists," *Material matters: The art and culture of contemporary textiles* (1998).

practice, process, and material.<sup>52</sup> As evidenced above, along with that gendering, a negative connotation to craft has remained.

### 2.3.1 SENTIMENTALIZING NOSTALGIA

Besides being categorized as “useful” or “women’s work”, what other considerations contributed to the labelling of craft as unvalued kitsch rather than art? Kitsch is defined as “art, objects, or design considered to be in poor taste because of excessive garishness or sentimentality, but sometimes appreciated in an ironic or knowing way”.<sup>53</sup> What is *excessive* sentimentality? What is *appropriate* sentimentality? It is obvious that within the definition of kitsch there lies a value judgement. Deborah Knight outlines the treatment of sentimentality and kitsch in *Why We Enjoy Condemning Sentimentality: A Meta-Aesthetic Perspective*, “Indeed, it is taken as a mark of psychological decline: not merely a decline in our ability to make reasonable judgments, but ultimately a decline in ourselves as cognitive and moral agents.”<sup>54</sup> If kitsch and sentimentality are in opposition to reason, cognition, and morals, what are they in alignment with? Robert C. Solomon weighs in: “I think that the heart of the problem lies in our poor opinion of the emotions in general and in particular the “softer” sentiments...”<sup>55</sup>

What else is condemned as a soft emotion? Although not included in the list provided by Solomon<sup>56</sup>, upon examination, it is easy to recognize nostalgia as a soft emotion. Nostalgia is defined as “a wistful or excessively sentimental yearning for return to or of some past period

---

<sup>52</sup> This is especially true for needlework, weaving, quilting, and textile work.

<sup>53</sup> Oxford Dictionary, "Lexico," <https://www.lexico.com/definition/kitsch>

<sup>54</sup> p. 411

<sup>55</sup> Kindness, sympathy and the calm passions of delight were included in the list of soft emotions by Solomon. p. 1

<sup>56</sup> Kindness, sympathy and the calm passions of delight were included in the list by Solomon. p. 1

or irrecoverable condition.”<sup>57</sup> Considering the close connection of nostalgia to sentimentality, nostalgia can be thought of as sharing in the same perspectives, and condemnation of sentimentality.

Since my connection to craft is directly related to a nostalgic remembering, it seems as though I am doubly condemned. This backwards-looking sentiment and longing to a return to a Golden Age often associated with craft is what Glen Adamson describes as the *pastoral* in *Thinking Through Craft*.<sup>58</sup> Adamson discusses craft as exemplifying the positive and negative facets of the pastoral: “It would not be too much to say that the ambitions and limitations of craft as a cultural force cannot be sufficiently described *without* using the self-reflexive language of pastoral.”<sup>59</sup> For example, not all, but many summer craft schools, craft markets, and craftspeople rely on the pastoral association to position themselves as legitimate and authentic – the positive facet of pastoral.<sup>60</sup> While simultaneously also condemned as sentimental escapism.<sup>61</sup> While some artists endeavour to elevate craft and separate it from these associations, Adamson proposes that craft’s inferior status might be its most dynamic aspect:<sup>62</sup> “Yet when the pastoral is not simply a pair of rose-colored glasses – when it is occupied self-consciously, rather than in a celebratory or promotional manner – it can be a powerful way of envisioning social and artistic

---

<sup>57</sup> Merriam-Webster, "Merriam-Webster Dictionary," <https://www.merriam-webster.com/dictionary/nostalgia>

<sup>58</sup> A subset of kitsch, referred to as *high kitsch*, often where craft items exist, is regarded as a professionally well-made expensive object often purchased by wealthy uncultured patrons moved by emotional response rather than a sophisticated aesthetic response.

<sup>59</sup> p. 105

<sup>60</sup> Craft schools, craft markets, and craftspeople are valued for their talents along with also being valued as a signifier of a pure, innocent lifestyle ripe with integrity. According to Adamson, they are “highly self-conscious and purposefully constructed places.” p. 104-105

<sup>61</sup> Craft is the vernacular of those seeking “true” experiences of an idyllic lifestyle outside the constraints of the city. These sites can trace their lineage to idealistic social experiments by wealthy intelligentsia of the Arts and Crafts Movement. p. 105

<sup>62</sup> Glenn Adamson, *Thinking through Craft* (Bloomsbury Publishing, 2018). 4.

change”.<sup>63</sup> Considering Adamson’s perspective, I endeavour to use the complex cultural and historical associations of craft along with my nostalgic connection as an effective conceptual medium and process in the critique of wearable technologies and future possibilities. *Now Frontier* relies upon a multifaceted reading of craft.

---

<sup>63</sup> P. 105.

### 3. METHODOLOGY

*Now Frontier* was conceptualized around aspects of technology and craft. This provided opportunities for me to question my own cultural associations, historical understanding, and bias. Further, it allowed me to explore my subjective knowledge and experiences objectively enough to be relevant to a greater critical community. As an artist, my studio-based practice of touching, stitching, and assembling was in tension with the non-tactile disembodied interactions and interfaces of contemporary digital technology. While I have a desire to interact with digital technology I also yearn for physical experiences of handmade processes. Within this context, *Now Frontier* asks how might craft and technology, with opposing associations, be used together to communicate an idea?

#### 3.1 HUMOUR AND CRITICAL DESIGN

As I mentioned earlier, in the 1990's Anthony Dunne and Fiona Raby coined the term *critical design*. The term was formed out of an interest to critique the assumption that technological process is always *good*. In *Speculative Everything: Design, Fiction, and Social Dreaming* Dunne and Raby use critical designs as “testimonials to what could be, but at the same time,” critical designs “offer alternatives that highlight weaknesses within existing normality”.<sup>64</sup> Humour or absurdity, if used carefully, can play a key role in critical design by disrupting the audience's assumptions and providing them with alternative imaginings.<sup>65</sup> Similarly, humour within artistic practices is used as critique; a way to address everyday circumstances and challenge embedded social structures. *Now Frontier* engages in critical design by employing

---

<sup>64</sup> p. 35.

<sup>65</sup> Dunne and Raby, *Speculative Everything: Design, Fiction, and Social Dreaming*. p. 40.

forms of humour, specifically absurdity, in the creation of wearable technology as a *time machine suit* to critique the personal, cultural, and historical, associations often assigned to craft and technology. Dunne and Raby declare that: “For us futures are not a destination or something to be strived for but a medium to aid imaginative thought—to speculate with.”<sup>66</sup> *Now Frontier* takes this declaration and conceptualizes a hypothetical product, *the time machine suit*, to investigate possible future technological interfaces. The construction of the *time machine suit* infuses whimsy through contradictory and unexpected materials and processes such as embroidered warning signs declaring “no passengers” and “I brake for time distortions” alongside micro-controllers with auditory, visual, and haptic feedback devices.

Why is it so many books, TV shows, and movies focus on time travel? According to Fraser A. Sherman in *Now and Then We Time Travel*: “Partly, it’s the sheer flexibility time travel offers to tell a story”.<sup>67</sup> Time travel gives the storyteller the freedom to critique the possibility of a dystopian future, present anxieties, past mistakes, and what-ifs within the same narrative. Throughout his book Sherman points to the rarity with which the stories he describes explain the mechanics, theory, and functioning of the time machine in depth. Rather than a scientific or technological blueprint, time travel and time machines within storytelling often function as a mechanism to move the narrative forward. The storyteller is asking the audience to participate in a willing suspension of disbelief. Usually a few sentences of *technobabble* are all the audience needs.<sup>68</sup> Similar to the time traveling TV shows and movies, *Now Frontier* uses *time travel* as a mechanism that allows the audience to follow and accept the techno-craft-narratives presented.

---

<sup>66</sup> Ibid. p. 3

<sup>67</sup> Fraser A Sherman, *Now and Then We Time Travel: Visiting Pasts and Futures in Film and Television* (McFarland, 2016). p. 1.

<sup>68</sup> Ibid. p. 3.

Rather than presenting a scientifically and technologically sound object, I have used time travel and a time machine as a methodology to disrupt the cultural and historical associations assigned to craft and technology. By deliberately blurring the temporal clues in the narrative for the *Time Travel Suit, Failed Experiments and Iterations* and *The Time Machine Suit Launch* video, the audience is challenged to reconsider their perception and interpretation.

#### 4. PROJECT STATEMENTS: THE WORK

*Now Frontier*, the name of my exhibition and support paper, is consciously ambiguous as a tool to engage and challenge the audience. *Now*, functions as a period of time that is in perpetual motion. The present time or moment – *now*, becomes the past in an eye blink. *Frontier* connotes an ever-moving boundary between the achieved and the yet-to-be. The two exist together as temporal and spatial borders, constantly cycling through present, past, and future. In theory, this pairing of the words *Now Frontier*, the exhibition title, posted at the entrance of the exhibition alerts the viewer and demands their participation in similar contradictions to come. This exhibition is an attempt to locate a place for craft and technology within my life and art practice, to site craft and technology as necessary to my existence both as binary opposites and complementary entities. In the narrative of *Now Frontier* I have consciously chosen to engage in the work as an isolated *time traveller* and *mad scientist*. The isolated nature of my persona stems from the COVID 19 pandemic and mimics the isolation I felt when my studio practice had to be relocated from the University of Lethbridge Fine Arts building to my bedroom. Although family surrounded me, the relocation of my practice to the domestic sphere, in effect, forced a separation from my academic support structure of faculty, staff, and graduate cohort students deeply affecting my productivity and how I completed my work. The *time traveller* and *mad scientist* persona therefore work in isolation and must problem solve, construct, and operate the *Time Machine Suit* all on her own. As the *mad scientist* works in isolation, starting from a subjective experience she attempts to address the binary associations designated to craft and technology, combining the two in an attempt to imagine/re-imagine the idea of possible futures for the collective good. She assumes responsibility for her creation and experiments what ever the outcome. While the *mad scientist* is an aspect of the time travel trope and a made up persona

for *Now Frontier*, her aspirations reflect my personal endeavours as an artist. The ideas and subsequent work created for this exhibition began from my subjective experiences, through research, experiments, and critical design this work endeavoured to take on greater collective concerns in an attempt to critique and subvert current assumptions by providing alternative imaginings of what craft and technology could be.

The COVID 19 pandemic also influenced the material choices for both the works, *Time Machine Suit* and *Failed Experiments and Iterations*, in two ways. In March 2020 when masses of people were forced to stay home as a result of the lock down, art supplies became difficult to purchase as people turned to do-it-yourself projects. At the same time, as mentioned above, my studio was re-established in the domestic sphere, my intuitive response was to collect and use materials found in my home for my work. Some of the materials in my work are recognizable from their original form, such as tin foil, bread clips, pill bottles, and jeans. While others are more conspicuous, such as a tablecloth, shower curtain, and panty hose, transformed from their original state to function within the materiality of the work. My bricolage approach is especially apparent in the *Time Travel Suit* where household materials are combined with craft processes and microcontrollers.

In addition this exhibition also strives to encourage viewers to examine their own ingrained cultural associations assigned to craft and technology, wherever they may lie. I use the *what-ifs* of time travel and time machines as disruptive devices, leaving the viewer to interrelate craft and technology and to question their inherent paradoxes. *Now Frontier* explores to what extent do we adhere to established associations or points of view in accepting new imaginings?

#### 4.1 TIME MACHINE SUIT

The *Time Machine Suit* is constructed using craft processes and domestic materials combined with technology. Woven with plastic grocery bags, embroidered *technobabble* instructions and warning symbols, replete with microcontrollers and wires, the suit provides functions imagined as necessary to the wearer for time travel while also protecting the body to withstand the unknown conditions of time travel. The technology industry often portrays “perfect worlds for perfect people interacting perfectly with perfect technologies.”<sup>69</sup> However, the use of craft materials and processes such as embroidery, knitting, felting, and weaving imagined as possessing time travel capabilities poses as an alternative to the conventional image of technology and time machines. I have co-opted the word *machine* by juxtaposing expected technological imagery— cold, hard apparatus, automation, controlled and efficient movement— with warm, soft apparatuses created through slow artistic labour. The meaning is formed through this juxtaposition, a blurring of material and immaterial, meatspace and cyberspace, male and female, antiquated and innovative. Ingrid Bachmann succinctly describes the tension felt between the foundational materials of the *Time Machine Suit*, craft and technology, in *Material and the Promise of the Immaterial*,

“Textiles are characterized by their haptic qualities and strong visual and tactile presence. The haptic quality of textiles reminds us of our own material origins and the often problematic physical conditions of our daily lives. This tactility and materiality appears to be in direct opposition to the almost antiseptic sterility of the design of computer hardware”.<sup>70</sup>

---

<sup>69</sup> Videos promoting “future directions or promoting new corporate values” has been the tradition tactic employed by many in the technology industry. Dunne and Raby, *Speculative Everything: Design, Fiction, and Social Dreaming*. p. 28.

<sup>70</sup> Bachmann, "Material and the Promise of the Immaterial." 32-33.

The bricolage approach to the construction of the *Time Machine Suit*, as mentioned above, points to a do-it-yourself narrative concerning craft processes and the use of microcontroller technology.<sup>71</sup> This technique and use of materials results in a softening of the time machine, and could be read as *cozy cyborg*. With this juxtaposition of materials there is no tangible reference point to when the *Time Machine Suit* was invented or for what purpose. Was it a response to the Cold War and nuclear anxieties or Space Race competition of the 1960s? Was it a reaction to the COVID 19 pandemic of 2020? Or was it invented in a dystopian future where an overabundance of craft material exists, undervalued and discarded, which must be coupled with surviving technology to build a time machine capable of returning us to the past to re-write a wrong? My narrative is purposely unclear. It is obvious that the *Time Machine Suit* was designed to protect the body, albeit from unknown circumstances.

The body's relationship to technology, the body's relationship to craft, and the body's relationship to clothing come into question. Clothing serves a function for our bodies and is also a signifier for *body*. Renee Baert describes the duality of clothing as "at once a social form and a surrogate for the body, a complex link between the private domain of the body and the public domain of the sign."<sup>72</sup> She continues: "Yet the absent body remains implied both through the

---

<sup>71</sup> Female engineers have designed many microcontrollers such as the Flora microcontroller I use in the *Time Machine Suit*. The Flora was designed by Limor Fried(Ladyada) as a sewable microcontroller tailored as a solution for the use in wearables. The Flora has had an impact on attracting young females interested in engineering and wearable electronics as a starting point. The *Pinkification* of tools and technology usually has a negative connotation as it often includes a simplification or *dumbing down* of products for the female gender. However, the Flora, and other microcontrollers like it, does not seem to fall under this negative classification. Rather than *Pinkifying* a microcontroller, Ladyada carefully re-imagined the design, size, and shape of a microcontroller which could seamlessly be integrated into wearables.

<sup>72</sup> Renee Baert, "Three Dresses, Tailored to the Times," in *Material Matters: The Art and Culture of Contemporary Textiles* (1998). 75.

congruity of clothing and corporeality, and by the empty space within the garment”.<sup>73</sup> The understanding that bodiless clothing inherently references the body is akin to one of Cindy Baker’s description of performance work in *The Missing Body: Performance in the Absence of the Artist*. While it would be possible to perform in *The Suit* for the audience in real time, this would interfere with the audience’s willing suspension of disbelief as it would firmly anchor the audience in the here and now and real. The *Time Machine Suit* is installed in the exhibition space as a bodiless object. It is mounted as a static display, an inanimate wearable technology and vessel, which at some point has contained a body, in this case, my body. Importantly, the installation encourages the audience to perceive *The Suit’s* active nature of perpetual readiness to be worn again. *The Suit* engages Baker’s third definition of performance as “creating object-based artwork which are stand-ins for their own body”.<sup>74</sup> Baker explores multiple reasons why an artist may choose this style of performance, from resisting an unnecessary alienation of the audience, avoiding re-traumatization, remaining invisible to an oppressive dominant culture, to employing ways of allowing the audience to accept a situation they may normally be resistant to because of the artist’s embodiment.<sup>75</sup> The last reason is most directly relevant to my intent in *Now Frontier* where I’ve attempted to encourage and maintain a suspension of disbelief to allow viewers to accept the notion of travel time travel in my journey and conceptualize ones of their own.

---

<sup>73</sup> Ibid. 78.

<sup>74</sup> P.6

<sup>75</sup> P. 22

#### 4.1 TIME MACHINE SUIT LAUNCH VIDEO

The video is slightly grainy, the edits are rough, abrupt, and absent of any sophisticated pans, pulls, or focus draws which speak to the self-documenting approach of an isolated mad scientist/time traveller/artist. The video is scripted, shot, and cut in such a way that the viewer gains a sense that it is an accumulation of a multitude of tries to get the *Time Machine Suit* working. The video opens with the camera pointed downwards documenting my walk towards the *Time Machine Suit*. The awkward donning of the *Time Machine Suit* begins to reveal the humour and absurdity present in the work. I am borrowing from the time travel narrative trope by documenting the successes as well as the many failures of the *Time Machine Suit's* launch.<sup>76</sup> Instead of presenting the *Time Machine Suit* as flawless and in sound working order, these failures, although humorous to watch, are meant to provide an opening for discussion for the audience. If the video is viewed in its entirety there is an endless cycle of comings and goings, which are bookmarked by the repetition of the opening downwards shot only in reverse. I use these back-to-back shots as a technique to confuse the sequential order of my time travels. In the installation space, the *viewing station* is in close proximity to the *Time Machine Suit* however it requires the viewer to move into a position where they can no longer see *The Suit* installation. The purpose of this positioning is to disorientate the viewer's sense of continuum enough to have them question whether they are seeing the actual use of *The Suit* in real time. The *Time Machine Suit Launch* video is purposely shot in the exhibition space with the work *Failed Experiments and Iterations* in the background, the video is a *document* of a performance work, a collection of

---

<sup>76</sup> Often in time travel narratives, the time travel machine is close to breakdown, flawed, and/or requires constant maintenance. This aspect of a narrative acts as a way to further the storyline, for example, a breakdown of a time machine may trap a character in a separate timeline than their original.

ephemera moments, that can only be accessed via the *viewing station* which effectively creates a barrier in space and time between viewer, the artists body, and the performance.

#### 4.2 FAILED EXPERIMENTS AND ITERATIONS

This part of my thesis exhibition displays my intuitive experiments and iterations as a mad scientist leading to the invention of the *Time Machine Suit* as well as documentation of my time travels as a time traveller. This installation adheres to my time travel narrative by depicting the mad scientists dishevelled lab where she has worked with experimental craft materials and processes along with micro-controller electronics. It reiterates the tension brought on by associative binaries and attempts to present the complementary nature in which I imagine craft and technology can work together to achieve time travel. Often specific materials and processes are associated with craft and technology, Ingrid Bachmann questions these material decisions: "For what factors determine that textile looms are fabricated in natural woods and not in stainless steel? Conversely, what factors determine that computer hardware is fabricated in heavy duty grey or black plastic melamine rather than in wood?"<sup>77</sup> Although the materials used for computer hardware, for example, may not be interchangeable with unexpected materials such as textiles due to inherent traits, these materials are most likely chosen or come to mind because of the cultural and historical associations we have with them. In this installation I use unexpected materials such as bread clips hung in groups on the wall. Each bread clip declares a specific month and day, however the years are never present. These bread clips, hung above, below, and adjacent to other materials, allude to important dates, perhaps time travel projections or past trips. In other areas, weaving and quilting experiments are placed amongst Kirchoff's law

---

<sup>77</sup> Bachmann, "Material and the Promise of the Immaterial." 33.

calculations and electronic schematics, these unexpected combinations and applications hopefully challenge the viewer's preconceived bias on what materials and processes may be included in future technologies.

## 5. CONCLUSION

In *How to Make Art at the End of the World*, Natalie Loveless discusses the definition and presentation of *research/creation* versus *research-creation* put forth by national granting organizations in Canada. At first glance there is little difference, however Loveless argues that there is a great significance between a slash and a hyphen positioned between research and creation. The slash prioritizes the “professional identity of the artist” (research) while the “hyphen indicates a hybrid formation, part research, part creation, part experiment that focuses on the *output of the research*”.<sup>78</sup>

Donna Haraway, in *The Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century*, discusses the *cyborg* as a possible trope for collapsing the traditional gender inequalities in a post-gender world.<sup>79</sup> Haraway suggests the hybrid nature of the cyborg is an example of seemingly contradictory elements existing within the same realm or being, rather than existing in binary opposition or hierarchical relation to one another: “a cyborg world might be about lived social and bodily realities in which people are not afraid of their joint kinship with animals and machines, not afraid of permanently partial identities and contradictory standpoints.”<sup>80</sup> I have at times referred to my desire to join technology and craft together as hybridization. Hybridization is defined as the process of animal or plant breeding with an individual of another species or variety, which produces a hybrid offspring. In terms of my artistic practice I imagined two separate species, technology and craft, mixed together to come

---

<sup>78</sup> Natalie Loveless, *How to Make Art at the End of the World: A Manifesto for Research-Creation* (Duke University Press, 2019). p. 6.

<sup>79</sup> Donna Haraway, "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century," in *Simians, Cyborgs, and Women: The Reinvention of Nature* (New York: Routledge, 1991).

<sup>80</sup> Ibid. 154.

up with a something new. I was attempting to resolve the binary positioning of future/past, innovative/antiquated, male/female pitted against each other in my material and process choices of my practice. How could I negotiate this tension without neglecting or discounting one, or the other, passion? Loveless and Haraway offer solutions. Rather than framing my research and creative production as reinforcing the *technology/craft* binary I have positioned it as *technology-craft*. This positioning allows for neither a demonology nor a championing of craft or technology. Rather, as Haraway concludes, it “means embracing the skilful task of reconstructing the boundaries of daily life, in partial connection with others, in communication with all of our parts.”<sup>81</sup> Through the use of critical design, humour and performance I am able to form a hybrid resolution; part technology, part craft, part experiment that at once provides tension and proposes a possible path forward.

---

<sup>81</sup> Ibid. 181.

## WORKS CITED

- Adamson, Glenn. *Thinking through Craft*. Bloomsbury Publishing, 2014.
- Bachmann, Ingrid. "Material and the Promise of the Immaterial." In *Material Matters: The Art and Culture of Contemporary Textiles*, 23-34: YYZ Books, 1998.
- Baert, Renee. "Three Dresses, Tailored to the Times." In *Material Matters: The Art and Culture of Contemporary Textiles*, 75-91, 1998.
- Baker, Cindy. "The Missing Body: Performance in the Absence of the Artist." University of Lethbridge (Canada), 2014.
- Cassell, Justine, and Meg Cramer. "High Tech or High Risk: Moral Panics About Girls Online." In *Digital Youth, Innovation, and the Unexpected.*, edited by Tara McPherson, 53-76. Cambridge: MIT Press, 2008.
- Chansky, Ricia A. "A Stitch in Time: Third-Wave Feminist Reclamation of Needled Imagery." *The Journal of Popular Culture* 43, no. 4 (2010): 681-700.
- Cutler, Randy Lee. "Remapping the Terrain." In *Mediaworks: Nancy Paterson*. Surrey: Surrey Art Gallery, 2001.
- Dictionary, Oxford. "Lexico." <https://www.lexico.com/definition/kitsch>
- Dunne, Anthony, and Fiona Raby. *Speculative Everything: Design, Fiction, and Social Dreaming*. MIT press, 2013.
- Hanisch, Carol, Shulamith Firestone, and Anne Koedt. "Notes from the Second Year: Women's Liberation." (1970).
- Haraway, Donna. "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century." In *Simians, Cyborgs, and Women: The Reinvention of Nature*, 149-82. New York: Routledge, 1991.

- Harrod, Tanya. *Craft: Documents of Contemporary Art*. London, Cambridge, MA: Whitechapel Gallery and The MIT Press, 2018.
- Kazis, Richard. "Turtles and Trains: Technology and the Pace of Change." edited by Mackenzie Art Gallery Walter Phillips Gallery. Banff, Regina: Walter Phillips Gallery, 1988.
- Loveless, Natalie. *How to Make Art at the End of the World: A Manifesto for Research-Creation*. Duke University Press, 2019.
- Merriam-Webster. "Merriam-Webster Dictionary." <https://www.merriam-webster.com/dictionary/nostalgia>
- Mills, Josephine. "We Can't Compete a Fag (Feminist Art Gallery) Satellite Project." In *Complex Social Change: Teaching, Performing, Exhibiting, Designing, Mapping*, 64-67. Lethbridge: University of Lethbridge Art Gallery, 2013-4.
- Mitchell, Allyson, and Deirdre Logue. "We Can't Compete." In *Complex Social Change: Teaching, Performing, Exhibiting, Designing, Mapping*, 68-89. Lethbridge: University of Lethbridge Art Gallery, 2013-4.
- Paterson, Nancy. "Cyberfeminism." In *Mediaworks: Nancy Paterson*. Surrey: Surrey Art Gallery, 2001.
- Pavitt, Jane. *Fear and Fashion in the Cold War*. V&A Publishing, 2008.
- Pedersen, Isabel. *Ready to Wear: A Rhetoric of Wearable Computers and Reality-Shifting Media*. Parlor Press Anderson, SC, 2013.
- Perron, Mireille. "Common Threads: Local Strategies for Inappropriated Artists." *Material matters: The art and culture of contemporary textiles* (1998): 121-36.
- Sherman, Fraser A. *Now and Then We Time Travel: Visiting Pasts and Futures in Film and Television*. McFarland, 2016.

Sloan, Joan. "Joyce Wieland: Life & Work." Sara Angel, Art Canada Institute <https://aci-iac.ca/art-books/joyce-wieland>.

Wark, Jayne. *Radical Gestures: Feminism and Performance Art in North America*. Montreal: McGill-Queen's University Press, 2006.

Weingarden, Lauren. "Aesthetics Politicized: William Morris to the Bauhaus." *Journal of Architectural Education* 38, no. 3 (1985): 8-13.

Wissinger, Elizabeth. "Wearable Tech, Bodies, and Gender." *Sociology Compass* 11, no. 11 (2017): e12514.

Appendix A: EXHIBITION DOCUMENTATION



Fig. 1: *Time Machine Suit*



Fig. 2: *Time Machine Suit* detail



Fig. 3: *Time Machine Suit* detail two

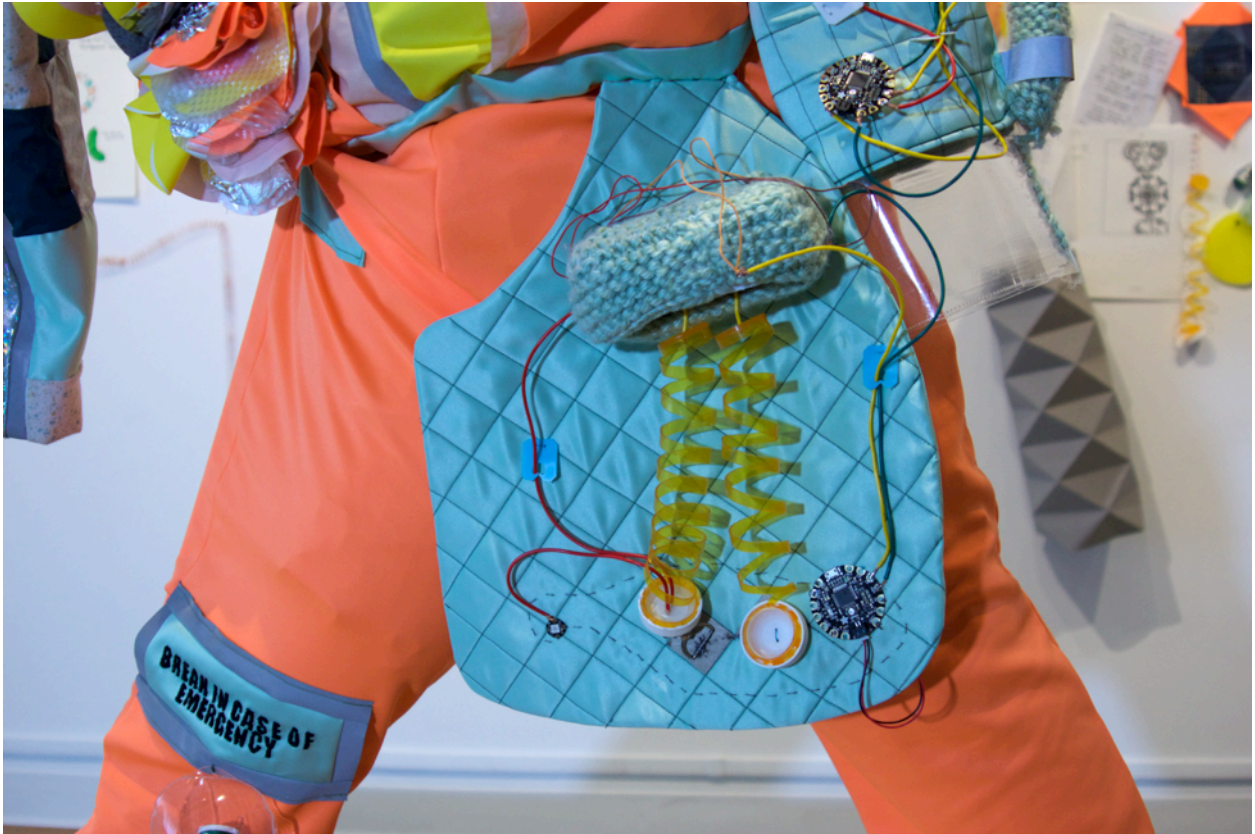


Fig. 4: *Time Machine Suit* detail three



Fig. 5: *Time Machine Suit* exhibition view



Fig. 6: *Time Machine Suit Launch* video (video still)

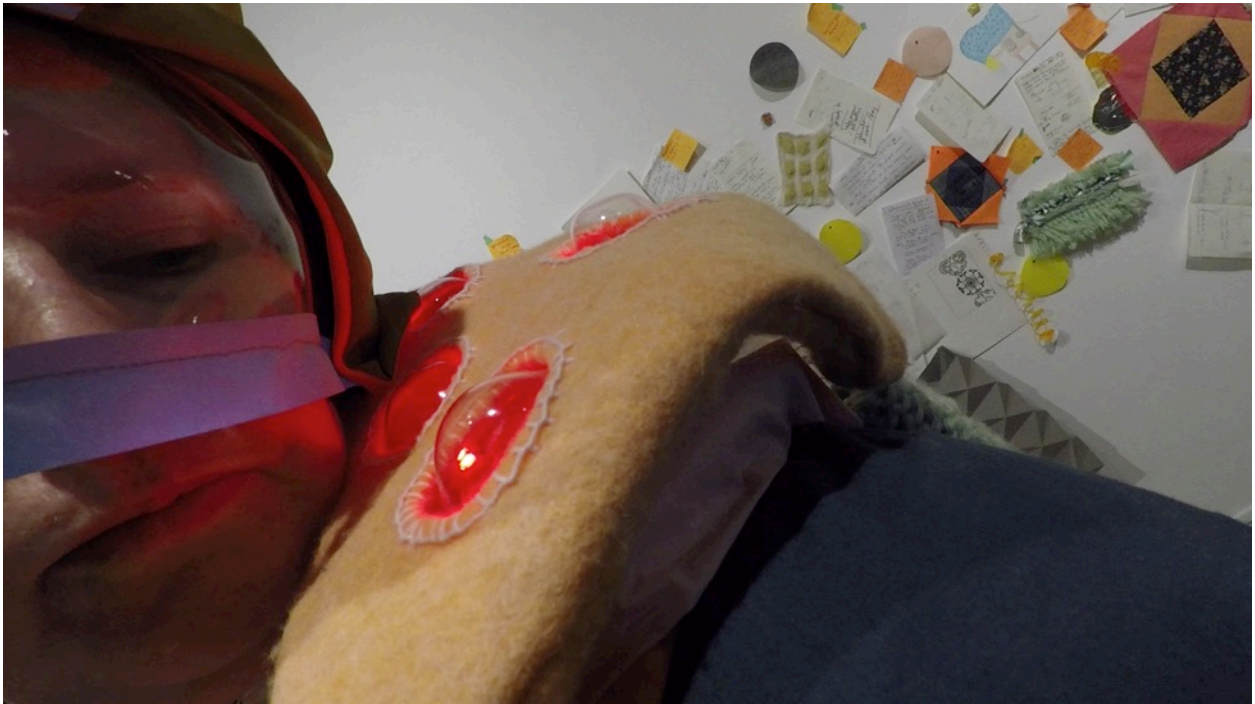


Fig. 7: *Time Machine Suit Launch* video (video still two)



Fig. 8: *Failed Experiments and Iterations* Exhibition View



Fig. 9: *Failed Experiments and Iterations* detail





Fig. 11: *Failed Experiments and Iterations* detail three