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Hearing the Voices of the Deserters: Activist Critical Making in Electronic Literature

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HEARING THE VOICES OF THE DESERTERS:
ACTIVIST CRITICAL MAKING IN ELECTRONIC LITERATURE

by

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M.Sc. Michigan Technological University, 2014

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for the degree of Doctor of Philosophy
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ABSTRACT

Critical making is an approach to scholarship which combines discursive methods with creative practices. The concept has recently gained traction in the digital humanities, where scholars are looking for ways of integrating making into their research in ways that are inclusive and empowering to marginalized populations. This dissertation explores how digital humanists can engage critical making as a form of activism in electronic literature, specifically in the interactive fiction platform Twine. The author analyzes the making process of her own activist Twine game *The Deserters* and embeds the project within digital humanities discourses on activism and social justice, hypertext, electronic literature, critical making, and hacker culture. *The Deserters* is a text-based digital game based on the experiences of the author's family as refugees from East Germany. The player's objective in the game is to research a family's history by searching the game-world for authentic documents, including biographical writings, journal entries, photographs, and records, thereby retracing historical events through personal experience. *The Deserters* aims at inspiring a compassionate and empathetic stance towards immigrants and refugees today. The author reflects on the ethical, narrative, aesthetic, and technical choices she made throughout the creation process of *The Deserters* to create a critical activist game. The results of the analysis demonstrate that Twine offers a unique environment for composing politically impactful personal narratives. From the project, the author derives best practices for activist critical making, which emphasize the importance for makers to imagine the needs and perspectives of their audience. The work expands digital humanities' theoretical and practical toolkit for critical making.

For Ilse, Manfred, Kristina, and Winfried,
for all the love and sacrifices.

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TABLE OF CONTENT

LIST OF FIGURES	ix
PREFACE: WHY WE ALL NEED TO BE ACTIVIST SCHOLARS	1
CHAPTER I: A FRAMEWORK FOR ACTIVIST CRITICAL MAKING	5
Overview: What this Dissertation is about	5
Scholarship to Change the World: Critical Theory.....	9
‘Activist’ Scholarship and the Importance of Vulnerability.....	12
Example: #MeToo Movement	15
Framework Overview	17
Making in the Digital Humanities.....	18
Activist Making, Critical Making	20
Example: Eyeris	24
Dissertation Overview.....	26
CHAPTER II: ENGAGING ACTIVISM THROUGH ELECTRONIC LITERATURE	28
Chapter Overview	28
Revisiting Hypertext Theory.....	29
Defining Electronic Literature	33
Twine Games versus Twine Literature	41
Introducing Twine, the Punk Rock of Electronic Literature.....	43
Example: Depression Quest.....	51
Example: Golden Threads.....	58

Chapter Review.....	64
CHAPTER III: PUNK OPEN SOURCE? TOOLS FOR ACTIVIST CRITICAL	
MAKING	66
Chapter Overview	66
Hactivism, Hacker Culture, and the Open Source Movement.....	67
Critical Making and the Open Source Movement	79
A Punk Rock approach to Open Source via Twine	81
Chapter Review.....	88
CHAPTER IV: THE DESIGN PROCESS	
Chapter Overview	90
A Note on Methodology	90
Documentation of the Making Process	91
My Mother, My Archivist: Accessing the Records	92
The Trouble of Information Gaps	94
Storyboarding & Arrangement.....	95
Ethical Questions and the Inclusion of Private Information.....	97
Narrative choices.....	99
The Player's In-Game Character.....	101
Aesthetic Choices.....	105
Transcribing the Journals	108
Translating the Journals	113
Presenting the Photographs	117

Coding the Photo Gallery.....	123
Chapter Review.....	130
CHAPTER V: LESSONS FROM THE DESERTERS	132
Chapter Overview	132
Key Concepts Revisited.....	133
Best Practices for Activist Critical Making	141
Examine your own motivations	141
Represent Ethically	143
Experiment with Tools and Materials.....	147
Attend to the Audience’s Needs.....	148
Be Transparent	150
Be Vulnerable	152
Take your Time	154
Concluding Statement.....	155
APPENDIX A: STORY MAP OF <i>THE DESERTERS</i>	159
APPENDIX B: LIST OF DIGITAL GAMES	161
APPENDIX C: TWINE CODE FOR <i>THE DESERTERS</i>	163
LIST OF REFERENCES	194

LIST OF FIGURES

Figure 1 Interactive Coat “Eyeris”	24
Figure 2 Punk Zine "Guilty of What"	47
Figure 3 Start Screen of Rani Baker's "Never Go to Work"	48
Figure 4 Start Screen of Morgan Sea's Zine Fair Lady	49
Figure 5 Screenshot from Depression Quest: Example for Player Choices	53
Figure 6 Screenshot from Depression Quest: Example of a Scenario	55
Figure 7 Screenshot from Golden Threads	60
Figure 8 Screenshot from Golden Threads: Sample Scenario	61
Figure 9 Screenshot from Golden Threads: Life of Matilda Lo Keong	62
Figure 10 Corkboard Structure of Twine - Example: The Deserters	84
Figure 11 Story Board for The Deserters.....	95
Figure 12 Story Drawing for The Deserters: Laura's Room.....	105
Figure 13 Scan from Ilse’s journal.....	111
Figure 14 Screenshot of transcribed journal entry	112
Figure 15 Photograph of Ilse after her first wedding	120
Figure 16 Photo Gallery Layout	122
Figure 17 Photo Gallery passage code - simple version	125
Figure 18 Improved Photo Gallery Code: funct1	127
Figure 19 Improved Photo Gallery code - Photo Passage	127
Figure 20 Improved Photo Gallery code - photoinit	128
Figure 21 Story Map of The Deserters	160

PREFACE: WHY WE ALL NEED TO BE ACTIVIST SCHOLARS

I came up with the idea for this dissertation project in Fall 2016, when I started teaching at the University of Central Florida. I taught composition to a group of engaged, dedicated students. Around the time of the presidential elections, several students began voicing concerns about their own or their families' future in the United States. I learned that some of them were refugees who waited for family members in their home country to become approved as refugees; others were so-called 'dreamers,' who had entered the U.S. illegally as children, but had been raised and educated in the U.S. The dreamer students had been hopeful when Barack Obama signed the DACA bill, which shielded them from deportation and allowed them to obtain work permits (Patler and Cabrera). When the Trump administration vowed to end DACA in September 2017, many students lived in fear of deportation, with little to no hope for legal employment (Bennet and Memoli). Several federal courts prevented the administration from ending the program (The State of New York et al. v. Donald Trump), but today, in early 2019, its future is still unclear. Even if DACA was continued, there are still countless students who would be at risk of deportation, because the program is limited by a set of arbitrary restrictions – for example, the applicant must have lived continuously in the US since 2007. For others, there simply is no system in place which would allow them to become citizens or work legally.

It is likewise increasingly difficult to obtain refugee status to enter the United States. After a complex process of filing forms, an application will only be approved if the

administration officer feels that the applicant displays “credible fear” during their interview – otherwise, they may be deported immediately. The Trump administration has added a new layer of ‘security measures,’ which includes extra screening of people from certain countries which the president personally deems threatening. One of my students was a refugee from a country on that list; his family was still waiting for approval in the middle of a war zone when the administration announced its plans. He reached out to me expressing fear for his family’s lives and future. As an instructor, I felt utterly helpless. Research in sociology and behavioral science have found that living in constant fear of deportation has a significant impact on the mental health of young undocumented immigrants (Gonzales, Suárez-Orozco and Dedios-Sanguinetti). How can we support students who live in constant fear for their lives, because the very state that is supposed to educate and protect them – our employer – wants to deport them?

I came to the United States from Germany on a student visa. Germany has accepted large numbers of refugees and immigrants over the past decades, and I grew up with and around people from all over the world. What I learned from my students opened my eyes to how broken the US immigration system truly is, and it fills me a mix of anger and desire to change something. To me, this matter became personal – and it should be to all of us: the administration wants to deport some of the most engaged, intelligent, hard-working members of our society, people who have survived hardships most of us cannot even imagine, people who now want to dedicate their talents and skills to this country. To exclude them from this nation seems both cruel and senseless to me, but the far right has undeniably convinced many Americans that immigrants pose a threat to national or

personal security. The narrative of the dangerous immigrant who seeks to take advantage of the US system dominates the discourse on immigration, overshadowing stories that demonstrate the actual reasons why people take desperate measures to come to the US. There is a sentiment of hostility towards immigrants that needs to be replaced with compassion and care.

Reflecting on things I could do to help change the system led me to explore my own heritage. I had always known that my mother and grandmother were refugees from Eastern Germany, but I did not know much about why or how they had come to the West. When I learned about their journey and the struggles they had encountered, I came to fully appreciate the sacrifices my grandmother had made to offer her family a more hopeful future. I wanted to share their story as a way of expressing my gratitude to them, but also as a way of illustrating to others what these women went through as they tried to establish a life in the West – and thus, I created *The Deserters*. It is my hope that the audience might be able to empathize with the protagonists of the story, and by extension, with other immigrants and refugees today.

At first, I was afraid to work on a project that was so openly political, and so explicitly activist. Especially outside of a humanities context, it is not uncommon to encounter positivist buzzwords like ‘objectivity’ and ‘neutrality’ as descriptors for what research should be. But upon some reflection, I realized that ours is not a time in which we should ask whether academics should be politically engaged or whether ‘activist scholarship’ is acceptable. This is a time in which *everyone needs to be an activist*.

I recognize that this project has no direct effect on the legal system that is currently in place; however, if others are inspired to share their experience, the way we talk about immigration might change gradually, and eventually, a sense of solidarity might replace the hostility that is prevailing in this country. Individual contributions may not change much, but together, maybe, we can make a difference.

CHAPTER I: A FRAMEWORK FOR ACTIVIST CRITICAL MAKING

Overview: What this Dissertation is about

This dissertation combines two things: a creative project, *The Deserters*, which comprises visual, textual, and digital components, and a written dissertation in which I critically reflect and contextualize the project. Together, these two components showcase an instance of what I call *activist critical making*, an approach to humanities scholarship which involves advocacy for social justice (*activist*), reflection and theory-building (*critical*), and engagement with materiality (*making*). I argue that Twine, the interactive fiction platform in which I built my project, is well-suited for activist critical making because it offers makers a unique environment for composing politically impactful personal narratives. In this chapter, I embed my work within a broader context of humanities and, more specifically, digital media scholarship. First, however, I will introduce the creative project and explain the purpose of the written dissertation with respect to it.

The creative project, *The Deserters*, is a text-based digital game based on my family's experience as refugees from East Germany. It tells the story of three women: my maternal grandmother, my mother, and – to a lesser extent – myself. The reader-player's objective in the game is to research my grandmother's and mother's lives by searching the game-world for authentic documents, including biographical writings, journal entries, photographs, and records, and thereby retrace historical events through personal experience. Examples include my grandmother's childhood in Saxony under the Nazis,

her youth during World War II, her escape from Eastern to Western Germany with my mother and uncle, my mother's her youth in Western Germany, the family's struggle with poverty under capitalism, my childhood memories of the Fall of the Berlin Wall, and my recent emigration to the United States.

The creation of *The Deserters* entailed archival research, digitization, writing, coding, and illustration. The resulting product is a hybrid of game, art work, electronic literature, autoethnography, and call for social justice. The choice of autobiographic primary material may seem unusual in the context of a dissertation: skeptics might argue that a subject so personal to the researcher does not allow a stance of critical distance. I could have conducted a similar study on a less personal subject matter, considering that my main inquiry is directed at the making process of the project rather than its content. However, as I will argue later in this chapter, sharing a personal, authentic lived experience is a politically powerful act. By intentionally foregrounding the human element, this project sets a strong focus on 'small data' and points away from the trend in digital humanities and related disciplines to attend to big data sets. With *The Deserters*, I want to foreground the subjective experiences of working-class women like my mother and grandmother whose stories have been excluded from the canons of history, and to draw the audience's attention to the personal and systemic challenges they faced as refugees. In doing so, I want to add an historical, subjective perspective to the contemporary discourse on immigration and inspire empathy and compassion with immigrants in general.

The written dissertation covers the analysis of the making process, which I recorded via screen capture and written notes. In analyzing my own engagement with making, I seek to understand how critical makers can engage in digital activism using the Open Source platform Twine, a software for making text games and telling interactive stories. Existing works in Twine, such as Zoe Quinn's *Depression Quest*, Anna Anthropy's *The Hunt for the Gay Planet*, and Porpentine's *With Those We Love Alive* show the power of this storytelling tool for activist authors of electronic literature. Digital media scholars who work at the intersection of electronic literature and game studies have found Twine to be a platform which is open and accessible to those who have historically been marginalized in game design. For instance, one study has shown that Twine offers an excellent space for telling personal narrative, specifically stories which revolve around complex emotional conditions such as trauma and depression (Salter); a Brazilian study examines representations of LGBTQ+ identities in Twine (Braganca, Mota and Fantini); a third study examines Twine's potential to democratize and queer the game industry (Harvey). This body of scholarship demonstrates that Twine allows designers to explore different dimensions of identity. Twine therefore lends itself to a project such as *The Deserters*, which likewise focuses on bringing marginalized identities into visibility.

I am interested in the poetics of Twine from the critical maker's point of view, i.e. the ways in which makers can employ the platform to conduct critical scholarship while also engaging it creatively as an outlet for personal narrative and vehicle for change. Stuart Moulthrop observes that "Twine games are often solo projects," with authors who "tend to come from rougher patches of cultural turf ... that key front of cultural struggle that is

queer identity.” In the ‘big game’ industry, such solo projects are rare. As Jane Friedhoff points out, individual programmers and writers have little to no room for self-expression when working for a large gaming studio (1). The ability to make a game of one’s own is therefore part of what makes Twine appealing to groups who are marginalized within the gaming industry. Scholars like Moulthrop and Friedhoff have recognized the importance of individual authorship in Twine; however, to date there is no scholarly work that focuses on Twine as a tool for critical making. The present dissertation seeks to fill this gap through a critical exploration of making a Twine game. I hope to answer the following questions: *How can makers engage the poetics of Twine to make critical, thought-provoking, activist games? What are the poetics of Twine, i.e. the poetic and aesthetic affordances of Twine that allow designers to make meaning? How does the critical making lens inform the maker’s choices, in terms of game design, narrative, and aesthetics? How can makers implement political and ethical values in Twine games?*

The first chapter will serve to establish a theoretical framework for activist critical making; to do so, I will first address the concepts “activism” and “critical making” separately. Political engagement in the humanities has a long tradition; I will begin by rooting the discussion of scholarly activism in critical theory, and then turn to the notion of activism itself and explain what I take it to mean in the context of this dissertation. I will then discuss how critical making engages with activism and discuss the role of creative work as a form of activist scholarship within the humanities.

Scholarship to Change the World: Critical Theory

The idea that humanities scholars should not just observe, but also change the world can be traced back to the Frankfurt School, a group of German Marxist scholars formed in the early 20th century. These scholars sought to understand why and how fascism and Stalinism had taken over in Europe, why enlightened democracy in the Weimar republic had failed, and why Karl Marx' revolution of the working class had not occurred as predicted. Unlike Marx, the Frankfurt School did not believe that the proletariat would rise of its own accord to change society and abolish capitalism; their hope (which seems faint reading their treatises) primarily rested on intellectuals, specifically the disciplines of sociology and political philosophy, within which they operated themselves. Their scholarly approach, notably formulated by Max Horkheimer, is the critical theory of society. To try and explain the term in its full complexity would lead too far off topic for the present dissertation; however, I address it because the present dissertation, like much of the scholarship in the humanities today, tacitly relies on its principles. Horkheimer formulated critical theory in opposition to what he calls 'traditional' theory, which separates the realms of research, science, and knowledge from human experience: "it speaks not of what theory means in human life, but only of what it means in the isolated sphere in which for historical reasons it comes into existence" (197). Historically, empirical science has its roots in Enlightenment and thus comes from a long tradition of liberal bourgeois thought; in more contemporary terms, we might say that academics have usually been privileged middle class people, while the poor have been excluded. Horkheimer critiques especially those scientists who have shown little concern for the

suffering of the working classes, but, in taking a positivist, ‘neutral,’ detached stance have reinscribed the false consciousness of the bourgeoisie; their work has thus helped those in power within capitalist society, rather than enact social change. Critical theory ascribes a different role to the scholar, who, according to Horkheimer, should not only describe the world as it is (which is what empirical science seeks to do), but also help create the world as it should be: “It is the task of the critical theoretician to reduce the tension between his own insight and oppressed humanity in whose service he thinks” (222). This means that a scholar who works within a framework of critical theory seeks to empower and liberate the disenfranchised people of society. Critical theory is as relevant today as it was in Horkheimer’s day. Horkheimer acknowledges that critical theory can change based on changes that occur in the system, but a few assumptions remain stable and thus provide critical theory’s backbone: “the basic economic structure, the class relationship in its simplest form, and therefore the idea of the supersession of these two remain identical” (243). The emphasis on overcoming the oppressive class relationship underscores critical theory’s Marxian roots.

If we put these assumptions to the test today, we can see that they have ongoing relevance: while the form and shape of the economy has certainly transformed (these changes will be addressed more extensively later), our “new,” globalized capitalist system is no less exploitative or profit-oriented. Studies by human rights organizations have repeatedly demonstrated that the luxuries of the Western world, including jewelry (Human Rights Watch), garments (Human Rights Watch), and battery-operated tech gadgets (Amnesty International), rest heavily on the back of other countries, fueling child

labor, civil wars, poverty, and violence. The applied portion of this dissertation project seeks to add an historical, personal perspective to the contemporary discourse on immigration, specifically the struggles that immigrants, refugees, and asylum seekers have faced when entering the Western world. The subject is especially relevant in light of the United States' recently implemented 'zero tolerance' policy towards so-called illegal immigrants, which is in violation of fundamental human rights laws (Davis). Critical theory, which "has no specific influence on its side, except concern for the abolition of social injustice" continues to offer a powerful framework for humanities scholars who seek to go beyond empirical research and, in light of social injustice, add a prescriptive, normative component to their research (242). Following Horkheimer's premise for the stability of critical theory, the present dissertation assumes that the economic power structure and its resulting class relationships constitute the core justification of an inhuman system which perpetuates oppression in various shapes and forms, including the exclusion and exploitation of women and minorities.

On a macroscopic level, this work seeks to contribute to the supersession of these exploitative relationships and is therefore situated within the scope of critical theory. However, while critical theory serves as an anchor to root the present work in politically engaged humanities scholarship, it does not suffice as a framework to understand activist scholarship in the 21st century. Moreover, as I stated earlier, Horkheimer identifies the task of the critical theorist as reducing "the tension between his own insight and oppressed humanity in whose service he thinks" (222). In other words, Horkheimer assumes that the insight of intellectuals could benefit humanity, but he does not seem to

think that scholars might learn anything of value from the oppressed people. Critical theorists thus isolate themselves from the oppressed and position themselves above others outside of academia. In the section below, I address these issues by explaining and contextualizing my decision to use the adjective ‘activist’ in the context of my project.

‘Activist’ Scholarship and the Importance of Vulnerability

The term activism and, by extension, its grammatical variations (including ‘activist’ as a noun and as an adjective) are challenging to define and historically problematic. That, however, is hardly a reason to dismiss them altogether, considering that since post-structuralism, we know that *all* of language is problematic – words which describe ‘social’ phenomena are especially tricky (Latour). I chose the adjective *activist* for this project not only because I am somewhat partial to its (albeit fading) rebellious ring, but also because I think that if placed in the proper context, it can serve to describe what I am trying to achieve with this project with reasonable accuracy.

In the 1960s, right-wing media outlets used the term ‘activist’ in attempts at “discrediting the left,” casting protesting students as a mindless mob (Taylor). In the decades that followed, activism took on more positive connotations and came to be associated with various social movements, including feminism, LGBTQ+ rights, or environmentalism. Today, the expression is used as an umbrella term for political engagement of all kinds, to the point that the term has no clear boundaries: “Being an activist now merely means to advocate for change, and the hows and whys of that advocacy are unclear” (125). ‘Activism’ does not indicate a specific political position or

opinion, and definitions are vague at best. For instance, while members of the non-profit organization Permanent Culture Now identify with the term ‘activist,’ they define activism broadly as “taking action to effect social change; this can occur in a myriad of ways and in a variety of forms” (n.p.). While it seems that ‘activist,’ especially in academia, is more commonly used to describe leftist political action, the term itself does not indicate such leanings; a group of anti-abortion protestors might just as much be referred to as activists as an opposing pro-choice group. Therefore, applying the adjective ‘activist’ to scholarly work requires a clarification of goals and motivations.

A second, much more severe problem arises when people who self-identify as activists interpret themselves as an elite of world saviors. Critics of activism have pointed out that self-identified activists today tend to isolate themselves rather than organize large numbers of people and reach out to others. Jonathan Matthew Schmucker argues that many activists, himself included, come to politics buying into the “story of the righteous few,” a narrative which casts activists as an enlightened elite (n.p.). Relishing in their marginalization, such activists may interpret their small numbers as evidence of their special status as the free thinkers of a society. In a much-cited 2000 article in the grassroots journal *Do or Die: Voices from the Ecological Resistance*, Andrew X writes:

“The activist is a specialist or an expert in social change. To think of yourself as being an activist means to think of yourself as being somehow privileged or more advanced than others in your appreciation of the need for social change ... Defining ourselves as ‘activists’ means defining our actions as the ones which will bring about social change, thus disregarding the activity of thousands upon thousands of other

non-activists. Activism is based upon this misconception that it is only activists that do social change” (160).

Andrew X suggests that the very notion of ‘activism’ encourages a top-down approach to social change which comes from a place of self-grandiosity rather than solidarity. Considering critical theory’s exclusive focus on intellectuals, academics who take on the label ‘activist’ must be especially cautious not to view themselves as savior intellectuals and avoid taking a top-down, elitist position towards social change. We need to acknowledge that whenever activist scholars reach out to vulnerable populations, there is an inherent power balance. As academics, we are privileged in our access to knowledge and education and many of us have accumulated cultural capital and social status through degrees, certifications, honors, and the networks we have built. This may tempt some to assume that we have a better understanding of all social, political, or economic issues in the world. However, compared with the experiential background of people across the globe, our knowledge is limited to certain areas of expertise and often detached from real-world context. To view ourselves as the insightful benefactors of the oppressed discounts the knowledge of others outside of academia.

What can scholars do to avoid reinforcing the power imbalance between themselves and the people we hope to support? A helpful starting point is the sharing of personal life experience, for example through personal narrative. Activist scholar and pedagogue bell hooks, whose work focuses on empowering minority students in the classroom, argues that sharing confessional narratives can be empowering, but it also makes the narrator vulnerable (21). That vulnerability is an important component of levelling the power

imbalance between students and teachers. hooks states: “When professors bring narratives of their experiences into classroom discussions it eliminates the possibility that we can function as all-knowing, silent interrogators” (21). hooks’ argument applies to all activist scholarship, because the roles of teacher and researcher, by their very definition, place us into the position of authority – historically, we have been the ones to ask the questions, while whoever is on the receiving end, student or research subject, must answer. To tip that scale in favor of our partners in education and research, we need to avoid the interrogation scenario and replace it with dialogue. To start a dialogue, “it is often productive if professors take the first risk” by sharing confessional narratives and making ourselves vulnerable (21). Such a step allows us to approach others not just in our role as scholars, but as human beings. We thereby make it easier for others to share, and present ourselves in a caring, rather than a threatening manner.

Example: #MeToo Movement

Once the stage has been opened and enough people feel comfortable telling their stories, the experience of sharing can become truly empowering. A recent example which demonstrates the potential power of personal story telling is the Me-Too-movement, first launched in 2006 by black social activist Tarana Burke (me too.). Burke introduced the phrase “Me Too” to raise awareness to the prevalence of sexual violence among women of color; the expression went viral in 2017, when actress Alyssa Milano encouraged all women who had experienced sexual abuse to publicly share their experience via the hashtag #meToo (me too.). It is important to acknowledge here that the viral movement is

problematic in many ways. Among other aspects, critics have pointed out that Me-Too excluded women who could not go public with their stories without risking their jobs or even their lives; minority women are disproportionately affected by this risk. Moreover, even though it was Milano's use of the hashtag that spread the movement, Burke, as a black activist without Hollywood celebrity status, took a much greater risk when she started the Me Too campaign. However, despite its controversy, Me Too brought sexual harassment to the forefront of public discourse across the entire world, and while legislative changes are slow to come by, victim's reports are taken much more seriously today than they were only a few years ago. I chose to discuss the example here not only because my own participation in the movement felt liberating, starting a long overdue process of healing, but also because it raised my awareness to the power of personal narrative. Me-Too shows how, by sharing our subjective experience, we not only make ourselves vulnerable, but we also write our way into a collective of storytellers, and our individual experience becomes part of a collective experience. In an ideal scenario, receiving each other's stories leads to mutual *empathy*, resulting in what might best be described as *solidarity* among the storytellers. Me-Too also shows that, in practice, building empathy and solidarity is challenging; however, the alternative to speaking up is to remain silent, and silence does not cause social change.

The Me-Too movement illustrates one way in which personal narratives can be politically impactful. Personal stories, when placed into context, can help us better understand history, and the ways in which political institutions shape the lives of the people they govern. They also allow us to become witnesses to a life that otherwise may

have gone unnoticed: to study, write about, or read about the lived experience of another is to acknowledge them as human beings; it says: your experience, your life, matters.

With this project, I neither aim for, nor have the means to achieve, world-wide virality; however, by sharing my family's personal experiences in narrative form, I hope to add to the body of subversive narratives others have shared before me and will in the future. As the collective grows, so, I hope, does solidarity, and slowly, the stories our culture buys into may shift.

Framework Overview

To summarize, I am taking an approach to activist scholarship that bridges the premise and goals of critical theory with a 21st century interpretation of activism that is inspired by critical pedagogy and focuses on personal storytelling. The critical theory portion contributes the ethical basis of this project, i.e. the assumption that scholars should try to change the unequal, oppressive relationships that exist in the world. The critical pedagogy component is an attempt to remediate some of the issues in critical theory, specifically the notion that activist scholars are superior to those populations they hope to support: through personal story telling, we can – at least to a certain extent - level unequal power relations between academics and vulnerable populations by encountering each other as humans, and by honestly sharing our motivations and intentions.

Having established how I employ the term activism, we can now move on to discuss the means and methods which can deliver activist humanities scholarship. Personal narrative is the literary genre that serves as a vehicle for this kind of activism, but

narrative can be delivered through different modalities, and mediated via different technologies: through oral storytelling (in person or via an auditory technology, such as radio or podcasting), in written form (as a printed or electronic work of creative nonfiction), audio-visually (as a play or film), or interactively (through analog or digital games). I chose to deliver *The Deserters* through digital interactive fiction, as a work of electronic literature. However, because the process of building the project required engagement with many technologies and materials, it seems more appropriate to discuss *The Deserters* in terms of *making* rather than electronic or multimodal writing.

Making in the Digital Humanities

Even though creative works are becoming more common in humanities research, the adjective ‘creative’ bears an invisible tag that says, ‘not scholarly.’ David Staley illustrates the issue when he discusses his piece *Style in History*, a data visualization that uses color-codes to identify speech patterns across several classic works of history: “Many [colleagues in the Department of History] described the work as ‘creative,’ which they meant, and I took, as a compliment. But hiding beneath that compliment was the judgement, voiced by some, that this work was not ‘scholarship’” (33). Staley’s peers interpreted his non-textual piece as an artwork *rather than* humanities scholarship; it seems their not-so-subtle criticism relies on the age-old assumption that creative expression and rigorous scholarship are somehow incompatible. Interestingly, Staley himself comes to the defense of his work not by attacking the notion that art and scholarship are incompatible, but by pointing out that his project merely “resembles an

art object,” and is actually “a humanistic object” (33). What he means is that the process of creating such an object is an act of interpretation, and thus an act of engaging in humanities scholarship: “making, designing, and experiencing these visual, tactile, material objects are hermeneutic acts, which afford the kind of inquiry expected in the humanities” (33). Like Staley’s project *Style in History*, the creative project in this dissertation is meant to be a scholarly contribution; I am inclined to say that it is also a work of art, or electronic literature, and I see no reason why it cannot be both. However, Staley’s insistence on his project’s scholarly purpose and mere resemblance to an art object is unsurprising considering the challenges that researchers encounter when they engage in creative approaches to scholarship; the issue goes back to the age-old assumption in humanities scholarship that discursive approaches to knowledge-making are more valuable than applied knowledge.

Historically, scholars in the humanities and the natural sciences have valued theoretical knowledge (*episteme*) over practical skill (*techne*) (22). The digital humanities (DH) break with the old hierarchy of knowledge and have brought “the creative practice of design to the center of research” (25). *Making things* is now an integral part of DH scholarship; however, not all DH scholars are comfortable identifying with the term ‘maker,’ as it has a problematic, highly gendered history. While the humanities may have rejected practical knowledge in favor of discourse and theory, Debbie Chachra points out that our tech-oriented culture and the disciplines it values most (such as engineering) have done the opposite:

“The cultural primacy of making, particularly in tech culture – that it is intrinsically superior to not-making, repair, analysis, and especially caregiving – is informed by the gendered history of who is credited with making things and, in particular, who made things that were shared with the world, not merely for hearth and home” (319).

Chachra argues that making is by no means the grassroots DIY movement it is made out to be: while the maker-movement did arise from individuals rather than corporations, it ultimately reinforces the primacy of objects and artifacts over people (320). Likewise, John Hunter, Katherine Faull, and Diane Jakacki point to the problematic associations with the term ‘making.’ They suggest that we tend to think of ‘makers’ as “usually male, usually white, usually economically and socially advantaged” (130). However, on a more hopeful note, Hunter et al. argue that DH remediate the problem by “refashioning the maker as a critical humanist” (135). To accomplish that, DH scholars must rely on the “critical insights of gender, race, disability, and design studies” to incorporate methods and pedagogies that strive for social and environmental justice. One avenue of incorporating new perspectives into making-scholarship involves “storytelling by those who are muted by hegemonic normativity and institutional power” (135). The present dissertation seeks to contribute to the DH conversation through the making of *The Deserters*, a work which engages precisely such storytelling.

Activist Making, Critical Making

DH encompasses diverse practices, and the field’s boundaries are constantly under negotiation; making in DH can take many shapes and forms. To situate different practices

in the field, Patrik Svensson's typology for modes of engagement with digital technologies offers a helpful framework (Thompson-Klein 23). According to Svensson's model, humanities scholars have treated the digital either as a tool, an object of study, an expressive medium, an experimental laboratory, or as an activist venue (Svensson). It is important to note that the boundaries between the five modes are not rigid; rather, they overlap and intersect, and all five, to different degrees, involve making (Thompson-Klein 23). Most relevant to the present dissertation are the third and fifth mode of engagement. The third mode, which treats technology as an expressive medium, involves practices that use digital media forms in creative new ways for scholarship. Examples of such engagement include the persuasive games¹ built by game scholar and designer Ian Bogost, the book art projects² of visual theorist and cultural critic Johanna Drucker, or the works of electronic literature and performance art³ by literary scholar and poet John Cayley. The fifth mode treats technology as an activist venue, emphasizing inclusivity, access, and social justice. One example is the bilingual data mapping and visualization project *Torn Apart / Seperados*⁴, which offers "a deep and radically new look at the territory and infrastructure of ICE's financial regime in the USA" (Manan, Álvarez and Fernández). The project, which is meant to expose the culpability behind the 2018 humanitarian crisis, shows the locations of juvenile detention facilities which hold

¹ Bogost, Ian. "Persuasive Games." Ian Bogost, 2018, <http://persuasivegames.com/>

² Drucker, Johanna. "Projects." Johanna Drucker, n.d., <http://www.johannadrucker.net/projects.html>

³ Cayley, John. Programmatology, 2018, <http://programmatology.shadoof.net/>

⁴ Ahmed et al., 2018, <http://xpmethod.plaintext.in/torn-apart/volume/2/index>

immigrant children who have been separated from their parents after crossing the US-Mexican border. It also shows which districts have received money, and how much, from Immigration and Customs Enforcement, and what institutions and individuals benefit from it. *Torn Apart / Seperados*, which was featured in *Wired* and *Inside Higher Ed* among other publications, is a prime example of a successful cross-disciplinary collaboration between DH scholars which resulted in a highly persuasive activist piece.

This dissertation engages with digital technology as a space for creative expression and political activism; following Svensson's model, it combines modes three and five. A third component - critical reflection – grounds the work theoretically in existing humanities discourses about the activist potential of digital media. Scholars including Matt Ratto and Megan Boler, Kate Milberry, and Steve Mann have called such blending of critical reflection and creative work “critical making.” In the digital humanities, critical making brings the physical, material side of the seemingly intangible digital realm into conversation with theoretical and discursive approaches to scholarship. The expression was introduced by Matt Ratto and Stephen Hockema as a pedagogical approach to meaningfully and critically experimenting with materials technologies. In their first critical making workshop, called Flwr Pwr, Ratto and Hockema had participants build a garden of digital flowers (called “flwrs”) which were programmed so that the survival of each individual flower depended on their communication with other flwrs, and vice versa. During the process, participants discursively explored different meanings of their project, such as “the value of reciprocal exchange,” and the dependency of life and survival on others (58). Critical making as pedagogy combines

seemingly disparate forms of knowing: critical thinking, reflection on values and social issues, and hands-on making.

Critical making involves an exploration of the relationship between maker, tools and materials, and the world around them. In critical making, we can explore “how elements (whether nuts and bolts, bits and bytes, or breath, blood, flesh, brain, and neurons) work together...” (3). In other words, the critical maker, whether they sew a dress, build a closet, write a novel, compose a symphony, design a website, or program a game, does not merely create a product; rather, they enter a process of making accompanied by reflection, and throughout this process contemplate the meaning and relationships of work process, material, tools, media, and all other elements involved. Ratto stresses that critical making is about experience and interaction in the material world; likewise, Garnet Hertz emphasizes that critical making recognizes the value of material production for critical engagement with the world. Hertz suggests that critical making is characteristic of the kind of scholarship that emerged after the ‘material turn,’ a paradigmatic shift in the humanities and social science which led scholars to recognize “material objects as a key part of social processes and conceptual frameworks.” In its emphasis on materiality, critical making is much like critical design. Critical design also stresses critical reflection; however, following Hertz, design aims to create industrial design prototypes which challenge existing designs “question the way products reinforce a banal and comfortable status quo.” Critical making, on the other hand, is less oriented

towards creating an artifact and instead emphasizes process, social critique, and scholarship.



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Figure 1 Interactive Coat “Eyeris”

Example: Eyeris

Since the first critical making workshop, the term has taken on a much broader meaning, and no longer exclusively refers to a pedagogical approach to physical computing. More recent publications on critical making, such as Ratto and Boler’s 2014 book *DIY Citizenship: Critical Making and Social Media*, have placed a stronger emphasis on social critique and political activism. Ratto and Boler cite crafting, drawing, painting, sculpting, knitting, quilting, sewing, but also coding, hacking, or modding as

possible forms of protest: “[s]uch activities can also be understood as political in the sense that they potentially challenge existing systems of authority [...]” (5). For example, students George Moore, Silvia Kim, Arianna Ninh and Katherine Qiu designed *Eyeris*, “an interactive coat speckled with mechanical irises that deter potential predators from pursuing non-consensual contact,” in a critical making course at Berkeley University (FIGURE 1). Upon physical touch, several mechanical lids open on the surface of the coat, revealing glowing eyes all over the fabric. Kim et al. state that they built the piece to address non-consensual touch as a form of sexual harassment. Their online showcase suggests that they worked with the notion in mind that sexual predators might be less likely to touch a victim when they know they are being watched. *Eyeris* can also be read as a feminist subversion of the Foucauldian panopticon, in the sense that the wearer of the coat – woman – takes an oppressive system created by men and appropriates it for her own intention. Surveillance is asserted as a mechanism of protection for the historically oppressed. The project also provides an interesting commentary on the male gaze, or the perspective of heterosexual males upon women’s bodies in narrative film (Mulvey). Women are represented in a sexualized manner and subjected to the gaze from three angles: the person behind the camera, the characters within the plot of the film, and the outside audience (808). Beyond film critique, there is a very real side to the male gaze; in its most literal version – the predatorial stare of the real-life stalker – it can be a terrifying indicator of a life-threatening situation for women. In building the *Eyeris*, Kim et al. cleverly use wearable technology to flip the male gaze against itself. The predator

becomes the one being stared at; thereby, an oppressive mechanism which has historically subjugated women to men becomes a means of calling attention to misogyny.

The versatility of *Eyeris* becomes apparent when considering that it can take scholarly discourse in different directions. It engages hands-on skills (coding, sewing) and material components (processors, wire, thread, fabric), while addressing social injustice (misogyny) and offering room for scholarly critique and interpretation. The example demonstrates that critical making, in building, exemplifying, and engaging theory through the physical process of making, is a scholarly activity that can yield insight we might miss out on in purely discursive approaches to scholarship. For the present work, which aims to contribute both to the discourse on making within the digital humanities *and* to the public discourse on immigration, critical making therefore offers a strong theoretical framework.

Dissertation Overview

This chapter introduced the premises and goals of the overall dissertation project and sketched out a theoretical framework for activist critical making. This dissertation revolves around the making of a creative work, *The Deserters*, an interactive fiction game built in the Open Source platform Twine. In the written portion of this dissertation, I analyze and reflect upon the steps I took while creating *The Deserters*, with an eye to the poetics and mechanics of Twine and the way in which they inform the making process.

The following chapter situates Twine and the project within a context of electronic literature. Specifically, I look at the way in which makers of hypertext fiction

and electronic literature in general can engage technology to create activist works. Finally, I discuss Twine against a backdrop of existing e-lit scholarship and present examples which have informed my own work.

Chapter three continues the discussion of activism in the context of digital technologies. Because Twine is an Open Source product, I scrutinize the ideology of the free software movement, and argue that Twine remediates some of the problematic limitations of Open Source ethics. I demonstrate how Twine invites and encourages people on the margins of game making and programming culture, and in this context discuss some of the specific Twine tools which were relevant during the creation of *The Deserters*.

Chapter four provides an extensive discussion of the design and making process of *The Deserters*. After discussing my methods of documentation, I detail some of the key decisions I made during the creation of the game and explain them within the context of activism and activist critical making. I address different stages of game development and reflect on the aesthetic and ethical implications of the choices I made throughout.

In chapter five, I review the framework and project of this dissertation and discuss the way in which Twine's affordances have shaped the making process. Based on the experiential knowledge obtained during the making process of *The Deserters*, I present seven best practices for scholars interested in activist critical making. Finally, I address possibilities for further research within the field.

CHAPTER II: ENGAGING ACTIVISM THROUGH ELECTRONIC LITERATURE

Chapter Overview

In this chapter, I continue my discussion of activism in the context of digital humanities scholarship, focusing on the tools and technologies used to develop *The Deserters*. At the core of this discussion is the software I relied upon most, the text-game making platform Twine. To understand Twine's revolutionary role in game culture and its status as a unique tool for making interactive fiction, I embed the discourse on Twine within a broader context of hypertext theory and electronic literature. Hypertext has long been perceived as a potential tool for activism; early hypertext enthusiasts saw a subversive power in its very structure. However, as the discussion below shows, the argument that hypertext *per se* empowers the reader can be debunked. Reconsidering hypertext as a genre of electronic literature shows that hypertext *can* challenge structures of authority and serve as an activist venue, but in a much subtler way than early critics have anticipated. As a genre of electronic literature, specifically in the context of Twine, I argue that hypertext can engage readers emotionally in ways that print literature cannot. The Twine community, which I compare to the Punk Rock scene of the 1970s, takes advantage of this feature in ways that empower marginalized communities. This discussion leads us to the core argument of this dissertation, as *The Deserters* is an attempt at intentionally harnessing this effect and examining how authors can use Twine for activist purposes.

Revisiting Hypertext Theory

In 2019, we all read hypertexts every day: a Wikipedia article, a Reddit post, or a Tweet can all be hypertextual. However, few people would refer to their online readings as ‘hypertext;’ the term is more commonly used in academic contexts. *Hypertext* is interlinked text; textual elements, or nodes, are connected to one another through hyperlinks and can typically be accessed by the reader via mouse click. Ted Nelson (1987) first introduced the word *hypertext* in 1965 to describe “*non-sequential writing – text that branches and allows choices to the reader, best read at an interactive*” (2). Nelson’s hopes for hypertext went far beyond his own definition. He argued that hypertext would unleash human creativity, because its structure mimics the ways in which we think. In *Computer Lib/Dream Machines*, he imagines that once all knowledge became hypertext, disciplinary boundaries would break down, and all those who can read would be able to read everything. Hypertext, he contends, knows no hierarchies of knowledge: “Everything is deeply intertwined. In an important sense, there are no ‘subjects’ at all” (DM 45). Nelson was convinced that writers would be able to compose in yet unforeseen ways, because hypertext’s non-sequential structure resonated with the ways in which ideas appear in the human imagination.

Many theorists of hypertext took inspiration from poststructuralist critics like French linguist Roland Barthes, and saw the choices that hypertext offered to readers as the realization of Barthes’ writerly text. The writerly text stands in opposition to the readerly text, the “classic” text which “make up the enormous mass of our literature” (5). While the audience of the readerly text is passive according to Barthes, the audience of a

writerly text actively co-constructs meaning. Writing in the 1970s, Barthes argued that the “the goal of literary work [...] is to make the reader no longer a consumer, but a producer of the text” (4). Barthes was referring to those text which challenge realism, linearity, stability, and coherence: his primary example was the work of Honoré de Balzac, but the criteria for writerly apply to works like James Joyce’s *Finnegan’s Wake* and William Faulkner’s *The Sound and the Fury*, both of which require a significant effort of interpretation on the reader’s part. Hypertext theorists like George P. Landow and David J. Bolter interpreted hypertext as inherently writerly due to its interactive components. Bolter, comparing hypertext with print literature, writes that “in electronic hypertext two subjectivities, the author’s and the reader’s, encounter one another on more nearly equal terms” (168). The argument implies that the very affordances of hypertext would level out hierarchies between author and reader, producer and consumer, subject and object. Landow went so far as to argue that the “generally democratic, even anarchic tendencies of hypertext” would empower the reader politically (30). Together, these scholars conjured an image of hypertext as a tool for empowering not just the individual reader, but society at large.

Today, in 2019, the enthusiastic claims about the subversive power of hypertext seem overzealous. Certainly, compared with a printed book, hypertext may appear flexible, chaotic even. The reader may encounter a choice between different links, or story paths, and experience the ability to make that choice as having a certain level of control over the story’s outcome. However, the argument that hypertext’s very structure closes or diminishes the power gap between reader and author can be disproven with the following

considerations: The author not only composes the text's content (as would be the case in a print book), but also codes the text's interactive components. This means that the author provides the choices, controls the outcome, and determines the mechanism by which the individual pieces of text are linked. By controlling the hypertext's underlying code, the author can anticipate every possible outcome – the exceptions are technological glitches, which we will discuss later in this chapter. Aside from that, any path through a hypertext is merely a recombination of a set number of options. No matter how many choices are given to the reader, the number of permutations is limited and calculable. Unless the reader has the skills and knowledge to intervene and change the hypertext's code, it is mathematically impossible for the reader to go beyond the hypertextual framework the author has set.

In a sense, then, by providing choices, the author of a hypertext has more power than the author of a print text. The author of a hypertext is like the villain who, in the final showdown, forces the hero to choose between saving either their love interest or their loyal sidekick; by giving the hero/reader options, the villain/author can shift the burden of responsibility (and possibly life-long guilt) to the hero/reader. In the end, the reader can either stop engaging with the text altogether, or she can participate in the game laid out by the author and make a choice. If the reader decides to participate, she must play by the rules the author has laid out through the text's code. The analogy illustrates how, depending on the choices the author provides, hypertext can enforce a greater level of emotional involvement for the reader than a print text would: Hypertext authors can make the reader complicit in propelling the narrative in a certain direction. However, the act of

choosing does not necessarily transfer any power to the reader, as the reader is trapped in the hypertextual labyrinth laid out by the author.

Of course, readers have always had a way of working their way around the constricting boundaries of texts; for instance, readers can become authors and respond to a text through subversive interpretations or remediations. The point is not that reading hypertext cannot be empowering: rather, the point is that, contrary to what hypertext theorists like Landow have argued in the mid-1990s, the hypertextual structure *per se* does not place author and reader on (near) eyelevel – nor does it make a text “writerly” in the Barthesian sense. Barthes was a structuralist; what makes a text writerly is the complexity of its language and narration, as it forces the reader to engage with the text cognitively and provide interpretation. A hypertext, just like a print text, could be writerly *or* readerly – as a linguist, Barthes was thinking primarily in terms of content; the technology and medium of delivery alone cannot make a text writerly.

If hypertext does not empower the reader, what, then, is its role and purpose in an activist context? Theorists of electronic literature – who consider hypertext to be one among several other genres of digital-born literary texts – have found that such texts can indeed challenge existing structures of power and authority. However, the subversive potential of hypertext is subtler than anticipated by its early advocates. Before I can elaborate on the ways in which hypertext-as-electronic literature can serve as an activist venue, I will introduce the current discourse on electronic literature. The following section not only serves to define electronic literature, but also introduces a critical

perspective on digital-born texts that equips us with the theoretical tools to discuss activism in the context of hypertext.

Defining Electronic Literature

According to the Electronic Literature Organization and Katherine Hayles (2016), electronic literature is a digital-born “work with an important literary aspect that takes advantage of the capabilities and contexts provided by the stand-alone or networked computer” (3). Hayles acknowledges that the definition assumes an understanding of what constitutes “an important literary aspect.” She argues that because electronic literature is preceded by centuries of print literature, readers necessarily approach the newer form with tacit knowledge and assumptions shaped by the older literary form. However, she also stresses that electronic literature is more than print literature placed into a new medium. In other words, while print and electronic literature share certain commonalities – the literary –, they differ significantly in other aspects. Hayles defines “the literary” as “creative artworks that interrogate the histories, contexts, and productions of literature, including as well the verbal art of literature proper” (5). Note that the first part of this characterization of the literary is not limited to verbal forms of art; rather, it suggests that the literary is a form of meta-art *about* literature, a kind of critical reflection (“interrogation”) of its histories, contexts, and productions. The second part of Hayles’ definition implies that “literature proper” is included within the literary; here, Hayles again relies on existing assumption about what constitutes “literature proper.” Within the discipline of literary studies – which has traditionally been concerned

with print literature – such a definition might be considered problematic. It raises questions about inclusion and exclusion from the literary canon; about fiction and non-fiction; about ‘highbrow’ and ‘lowbrow’ culture, about ivory tower elitism, access to education, imperialism, class, race, gender, and other identity markers. As Matthew Kirschenbaum states, “Writing... is never off the grid. It is *always* about power” (30). Questions of power, access, and control are as important to electronic literature as they are to print literature. That the two forms share this commonality might explain why Hayles’ and the ELO’s definition do not further elaborate on what constitutes “the literary:” the same questions would arise if we were to try and define print literature. In both cases, definitions would inevitably exclude works which exist on the margins. Thus, while issues of power dynamics are important, they are not a distinguishing feature that allows us to differentiate between electronic and print literature.

What, then, sets electronic literature apart from print literature? Hayles points out that “[t]o see electronic literature only through the lens of print is, in a significant sense, not to see it at all [...]” (3). Historically, criticism of print literature has focused on content. New Criticism, for example, treats the text as a self-contained entity. New critics primarily rely on methods such as close reading and reader response analysis. Indeed, close reading and reader response are powerful tools of interpretation to understand representation and power dynamics in a text, especially when used in conjunction with critical approaches, such as feminism, Marxism, or cultural studies. Applying these methods to electronic literature can yield insight into the levels of content and reception, but such an approach would not suffice to fully understand a piece of electronic literature.

Content, as Dene Grigar and Stuart Moulthrop point out, “belongs to an ideology of singular expression and textual wholeness from which digital writing deliberately departs” (45-46). Indeed, it would be challenging to assert textual wholeness for a text which is generated at random based on an algorithm. Many pieces of electronic literature, including procedural poems like Nick Montfort’s *Taroko Gorge* (2016), consist of coded instructions on how a set of words, phrases or letters is to be jumbled together. While instantiations of such poems appear on the screen temporarily, they do not constitute the poem itself; they are copies without an original, third order simulation, machine-produced based on a set of human-made instructions.

Code is central to many works of electronic literature. Code, as Mark C. Marino has argued, is more than machine language which can be analyzed in terms of its functionality or aesthetics: “the computer may be one recipient of the code but there is also the programmer, other programmers, and at times even users who have access to its text.” In other words, code is rhetorical, it has a semantic layer for humans which is significant, it is “a cultural text worthy of analysis and rich with possibilities for interpretation.” Authors of electronic literature often playfully or critically engage code’s different layers of meaning. According to Hayles, the central role of code is the key difference between electronic and print literature: “The immediacy of code to the text’s performance is fundamental to understanding electronic literature, especially to appreciating its specificity as a literary and technical production” (5). In some genres of electronic literature, the entire piece revolves around code. Such is the case with codework, which makes visible “the code or the normally invisible underbelly of our

digital devices...by making the code the work of literature itself” (Emerson 31).

Examples of codework include Dan Shiovitz’ *Bad Machine*, which mixes English with elements taken from programming languages, or Giselle Beiguelman’s *Code Movie 1*, which treats the hexadecimal code of image files as meaningful in itself. These works stress the complex nature of digital writing by bringing multiple layers of meaning to the surface.

Critics and writers of electronic literature have used a metaphor of depth to describe the way in which meaning is made in electronic literature. In an earlier publication, Hayles argued that “print is flat, code is deep” (“Print is Flat” 74). John Cayley echoes her statement, arguing that the screen is a “complex surface.” Cayley explains that typically, when we discuss *depth* in print contexts, we do not think of *material* depth: rather, we think of “access, through a symbolically marked but dimensionless and transparent surface...to the interiority of a remote author.” This author, romanticized in the ideology of print as the creative genius, derives his authority from the institutions of publication. Cayley argues that scholarship of electronic literature should not reiterate the false transparency of print, but instead conceive of the screen as a complex surface, an interface for multiple complex processes with a complex material basis.

The key term is *material*. Several critics of electronic literature address the importance of paying attention to the materiality of electronic literature (Cayley, Hayles, Glazier, Kirschenbaum, Moulthrop). What they mean by *materiality* might best be summarized by Matthew Kirschenbaum’s definition of “forensic materiality.” Forensic materiality refers to physical materiality and “rests upon the principle of individualization

(basic to modern forensic science and criminalistics), the idea that no two things in the physical world are ever exactly alike” (*Mechanisms* 10). The concept is key in understanding that electronic writing is not ephemeral or disembodied, but leaves physical traces in the world. Kirschenbaum engages the notion of forensic materiality in his grammatology of the hard drive, which he identifies as a device of “extreme inscription” (*Mechanisms* 74). He hints at the idea that to erase a file for good, it is not enough to simply place it into the metaphorical ‘trash can’ on the interface; rather, to ensure that a file truly cannot be recreated, every piece of hardware which bears the file’s traces must be physically destroyed.

Given that inscription in electronic literature happens on the microscale, users, especially when faced with ubiquitous devices, are quick to forget the material basis of technology – and fall for what media archeologist Lori Emerson has called “the ideology of invisible interface design,” in which technological devices are nothing but mysterious magical black boxes (4). Emerson also problematizes the concept of user-friendliness, which emerged in the 1980s with Apple’s Macintosh (76). Apple presented the Macintosh’s visual interface and use of desktop windows as “democratic” compared with the command-line interfaces of earlier machines. Emerson argues that the inflexibility of the new visual interface restricts the user’s ability to freely and creatively interact with the technology. The Macintosh was “a computer clearly designed for consumers, not creators” (77). Consumers were indeed smitten: Apple’s version of interface design continues to dominate the personal computing market until this day.

Emerson also notes the parallels between the ideology of the user-friendly and ubiquitous computing, or ubicomp. Ubicomp, as opposed to desktop computing, can roughly be described as an approach to computer engineering that focuses on integrating computation into every aspect of human life. However, unlike modern examples of ubicomp, which might include board computers in automobiles, iWatches, or Google Home systems, the original concept was meant to be an *antidote* to visual interfaces. Mark Weiser, the inventor of ubicomp, viewed the concept “as a device’s ability to be simultaneously everywhere yet also unexceptional in how it ideally lacks a distinct identity” (5). Even though he introduced the term *invisibility* to interface design, Weiser’s interpretation thereof was radically different from today’s highly branded ubicomp devices, which are centered around identity and status (think, for example, of Apple’s entire I-series). Weiser imagined technologies that would be invisible in the sense that human-to-human interactions would be foregrounded, and the technology would not be a dominant entity in our lives (8). However, the companies that dominate the tech industry and developed today’s ubiquitous technologies had a different vision.

Corporations have no interest in creating devices that are *actually* transparent, allowing users to see what happens on the level of hardware. Rather, companies like Apple, Microsoft and Google embrace an approach to ubicomp which equates user-friendliness with black-boxing and invisibility of a device’s underlying mechanics. Emerson warns that “[i]n reality, the glossy surface of the interface further alienates the user from having access to the underlying workings of the device” (xi). The ideology of ubicomp and its shiny black-boxed devices turns us into passive “consumers rather than

producers of content” (xvii). Emerson contends that much of electronic literature can be interpreted as a form of resistance to this ideology, foregrounding difficulty over ease of access, disorder and chaos over smoothness, and material depth over superficiality. Jason Nelson’s *game, game, game and again game* is an example of such a work. Nelson’s messy, loud and angry poem/game/artwork that provokes audiences to think about the ways in which information is presented to us on the web, and the filtering that happens as content passes through the interface to us. Works like Nelson’s, which expose the ideology of invisibility and metaphorically “open the blackbox,” illustrate one way in which electronic literature and hypertexts can challenge authority and engage technologies in an activist way.

Summarizing the essence of this section, a definition of electronic literature should account for the full complexity of this literary form and emphasize the key role of material depth as a distinguishing feature that sets it apart from print literature. To find a suitable analogy for electronic literature’s multifaceted nature, Grigar and Moulthrop likewise adopt Hayles’ notion of textual depth and argue for a ‘deep’ reading of electronic writing that accounts for the complexity of digital text (12). However, they warn against a model that focuses only on code. Such an understanding of electronic literature which focuses only on code excludes many works of hypertext fiction. Specifically, they state that such a definition might exclude Twine games, “in which emphasis lies more on logic and expression than technical permutations of the system” (41). They propose a model of layers of oceanic flows, with code being one among many levels of meaning: “In metaphorically watery depths ..., we have to account not just for a

single dimension of the vertical but also for horizontal drift as well and implicitly for movement in an additional axis of time.” (11-12). I adopt this multi-dimensional model of electronic literature because it underscores the notion of depth and is flexible enough to accommodate code work, procedural poetry, and IF alongside hypertext fiction and Twine games. It acknowledges that elements and hierarchies of meaning can shift, mingle, and intersect; it allows us to look not only reception and content, but also at interface, code, hardware, platform, or distribution system; in other words, it accounts for the materiality of electronic literature.

How do our earlier considerations of hypertext fit into the discussion of electronic literature? What I am suggesting is that there are different ways of thinking and talking about hypertext – and in an activist context, it is most useful to think of hypertext as a genre of electronic literature. Early hypertext theorists like Theodor H. Nelson, David Jay Bolter, and George P. Landow focused primarily on the interactive components of hypertext and their effect on the reader. Even though all of them, especially Nelson, understood how hypertext worked and were familiar with the layers of code beneath it, they did not view these components as relevant to the *literary* interpretations of hypertexts. Earlier in this section, I argued that many schools of literary criticism have focused on content when interpreting print literature, ignoring aspects of textuality, materiality, and production. Early hypertext theory applies the hermeneutic approach of print literature criticism to electronic text, thus overestimating the importance of the interface level. Moreover, they ascribed a powerful role to the element of choice,

assuming that it empowers the reader; however, the limited control which hypertext grants the reader is not necessarily empowering, but can, in fact, have the opposite effect.

The more recent approaches to electronic literature introduced in this section do account for different levels of meaning beyond the interface and therefore offer more suitable interpretative tools for discussing hypertext in an activist context. In a context of electronic literature, hypertext fiction is merely one among many genres; in e-lit contexts, this genre is more commonly referred to as interactive fiction, which I use synonymously here. Twine is a platform for making hypertext fiction, but it is created and surrounded by a unique community that makes it a powerful venue for activist works. Therefore, as I introduce Twine later in this chapter, I highlight its affinity to activism by comparing it to the Punk Rock culture of the 1970s. Prior to addressing Twine as a site for activism, I will briefly address why I choose to refer to Twine works as ‘games’ in a context of electronic literature.

Twine Games versus Twine Literature

The *Electronic Literature Collection Vol. 3* holds four Twine pieces. The presence of these works in the collection suggests that these games are received as pieces of electronic literature; yet all four are marked up with the tags “twine” and “game.” Video games and electronic literature overlap and inform one another. Scott Rettberg argues that “[t]here are ludic aspects of electronic literature, and there are narrative elements of games. We are bound to study the two types of new media alongside each other, at least in environments where narrative is a concern.” Likewise, N. Katherine Hayles points out

that “[t]he demarcation between electronic literature and computer games is far from clear” (200). Twine games are situated at the intersections of electronic literature and games. Hayles paraphrases Markku Eskelinen, who suggests that “with games the user interprets in order to configure, whereas in works whose primary interest is narrative, the user configures in order to interpret games” (201). To elaborate on this distinction, I suggest that games – at least so-called AAA (“Triple-A”) games, which are published by large corporations - have a stronger element of forward momentum; they focus on the user’s progression through game and the accomplishment of certain goals. On the other hand, works on the electronic literature side of the coin typically focus more on the process of ‘taking in’ the work and making sense of it.

It is challenging, if not impossible and undesirable, to categorize Twine as either game or electronic literature. While arguments can be raised for either label, to impose one or the other would misrepresent the diversity of Twine games and writers. Moreover, the label “game” has political implications. Anastasia Salter and Bridget Blodgett demonstrate how popular representations of gamer culture *and* gamer culture itself have marginalized women and minorities (Salter and Blodgett). Historically, white male players have claimed the label ‘gamer’ as an exclusive title for themselves. In the past decade, toxicity has been their weapon of choice against women and minorities entering gamer culture. Twine has a symbolic role in undermining toxic masculinity because of its role in the gamergate controversy. To emphasize the label ‘game’ for stories composed in Twine is to align oneself with those who have historically been excluded from gaming culture. To choose the label ‘game’ is thus an ideological move, and the choice is up to

the author of each individual Twine piece. Therefore, in this dissertation, I will not generalize and impose the term ‘Twine games.’

I choose to look at Twine through a lens of electronic literature informed by games studies. I foreground electronic literature because I am interested in the poetics of Twine and how they shape the aesthetic and creative choices of the author. My work builds upon Merritt Kopas’ collection *Videogames for Humans*, which features a series of reflective essays on Twine games, to build “a true series of dialogues between the works and their selected readers.” Kopas’ anthology centers on the reception of Twine games and the readers’ playthrough experience. This dissertation seeks to add the authorial perspective to the discourse on Twine games. I will return to the subject of Twine and elaborate on the details of my project later in this prospectus. First, in the section below, I establish a model of electronic literature which is appropriate to this project, and then position Twine games within the existing discourse.

Introducing Twine, the Punk Rock of Electronic Literature

In a provocative keynote speech at the 2017 Electronic Literature Organization Convention, Matthew Kirschenbaum, calling out the avant-garde elitism of early creative and scholarly works in electronic literature, mused that Twine games might well be called the Punk Rock of e-lit. Punk Rock, at least in its earliest form in the late 1970s, is often associated with leftist political movements and challenge to social norm. Dave Laing identifies three forms of hostility to the status quo which fueled the Punk Rock movement: “a challenge to the ‘capital-intensive’ production of music within the orbit of

the multi-nationals, a rejection of the ideology of ‘artistic excellence’ which was influential among established musicians, and the aggressive injection of new subject-matter into popular song, much of which (including politics) had previously been taboo” (124). Laing’s definition implies that Punk Rock largely defines itself *against* mainstream music in its mode of distribution, aesthetics, and content. Kirschenbaum’s analogy between Twine games and punk rock holds true for two out of these three aspects. I introduce Twine through the lens of Punk Rock, because exploring these parallels allows for a thorough, yet focused exploration of the platform.

Twine games stand in stark contrast to Triple A video games. Twine is a free, open-source platform (Klimas). Jane Friedhoff notes that members of the Twine community may use the platform for any purpose, and do not need to purchase any special proprietary software to run the game, as Twine files (.tws) can be exported to widely-used file formats like HTML with CSS (2). Unlike AAA games, Twine games are typically user-created and available for free, or for a low price. Unsurprisingly, many Twine games are hosted on the indie game platform itch.io, which enforces a set of ethical guidelines for creators and explicitly rejects games containing discriminatory or hateful content (Corcoran). Some authors host their games on their personal website; the prolific Twine game designer Porpentine offers more than fifty of her Twine games for download. Compared with AAA games, Twine games are not geared at profit; in choosing Twine over other platforms, players and authors resist the market-oriented paradigm of large-scale game producers.

Moreover, Twine is an Open Source product, meaning it was built around the ideology of a community which stresses transparency, openness, communal ownership, and free access to software. Klimas has openly stated his reasons for making Twine Open Source: “I believe that creative tools should be as accessible as possible” (Klimas, “The Economy of Twine”). Not only does Twine’s accessibility opens it up to a much wider range of writers and coders; its openness also allows users to access, see, and modify its code. Nick Montfort’s procedural poem “Taroko Gorge,” which has been remixed by countless e-poets since Montfort has made its code available to the world, is a fascinating example of the kinds of works Open Source can give rise to.

Finally, Twine’s transparency stands in stark contrast to what Lori Emerson has labelled the ideology of invisible interface design (4). Emerson sees electronic literature as a subversive and provocative means to resist ubicomp; she specifically celebrates writers who emphasize a DIY-poetics that involves tinkering and experimentation, an approach to computers which she associates with Open Source. While she does not specifically mention Twine, the software is uniquely positioned to engage in such experimentation because of its openness.

By contrast, proprietary hypertext fiction platforms such as StorySpace do not offer these options. Originally developed by Michael Joyce and David Jay Bolter, StorySpace is now maintained by Eastgate Systems. The software was particularly popular in the first wave of electronic literature in the late eighties (“Deeper into the Machine,” Hayles 372). Among many other works, Michael Joyce’s much acclaimed 1987 hypertext fiction novel *afternoon* (1997) – the first of its kind – was written in and for StorySpace. In

StorySpace-based pieces of electronic literature, the emphasis is on hyperlinks, which allow the creation of a textual web with multiple narrative paths. The software's visual interface emphasizes mapping stories in different ways, but unlike Twine, its underlying software is black boxed. Mark Bernstein, Chief Scientist of Eastgate Systems, gave the following advice to new writers: "Avoid the politics of Open Source or Web standards or DRM or Apple v. Google v. Microsoft. Capitalism is not your fault and these are not your battles." Bernstein naturally has an interest in selling his product, so his stance is hardly surprising. It is interesting, however, that he asks new writers to ignore the economic contexts of writing. While it is possible to conceal one's code in Twine at least to a certain extent, the community around Twine emphasizes and encourages sharing, remixing, and modifying, which proprietary platforms neither encourage nor allow. In this respect, the Twine community is very much like the Punk Rock community as Laing describes it.

The analogy between Twine and Punk Rock continues to hold if we compare Twine games with the avant-garde experiments in electronic literature, which Kirschenbaum likens to progressive rock. Kirschenbaum argues that like progressive rock, early works of electronic literature – including Joyce's *afternoon* and Talan Memmott's *Lexia to*

Perplexia – tend to be experimental and overly complicated, because writers wanted to be acknowledged in the canons of ‘high literature.’

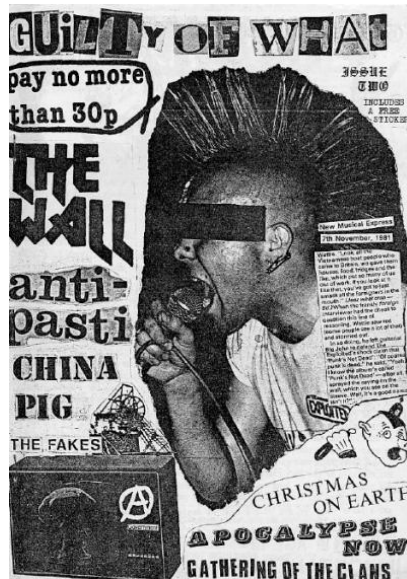


Figure 2 Punk Zine "Guilty of What"

Twine games position themselves not only against the Big Game industry, but also against canonical standards of artistic expression. The shrill, colorful, and cut-and-paste aesthetics of many Twine games parallels the aesthetics of Punk Rock. Punk Rock, as Laing points out, likewise rejects classical notions of artistic excellence. Punk rock bands emphasized an unpolished, raw sound and a messy kaleidoscopic aesthetic in their album covers and clothes. Moreover, early Punk Rock celebrated fan zines (FIGURE 2), which “privilege the ethic of DIY, do-it-yourself: make your own culture and stop consuming that which is made” (Triggs 69).



Figure 3 Start Screen of Rani Baker's "Never Go to Work"

Twine games have much in common with these small, independent publications. Queer transgender game designer and scholar Anna Anthropy presents Twine as a DIY platform in her 2012 book *Rise of the Videogame Zinesters: How Freaks, Normals, Amateurs, Artists, Dreamers, Drop-Outs, Queers, Housewives and People Like You Are Taking Back an Artform*. Anthropy argues that the mainstream video game industry narrowly focuses on heterosexual male experiences and needs to change to include representations of more diverse identities. The book is a call to action for those who feel marginalized by the mainstream video industry. Anthropy encourages her readers to create and self-publish their own video games. Promoting an amateur's DIY approach to game making, she tells her readers to "[p]ut weird shit into your game" (135) and contends that "[i]mperfections, creative accidents, and compromises... give a game personality and individuality" (125). Anthropy's game making philosophy corresponds to the DIY aesthetics of punk zines. The 1980s punk zine in **FIGURE 2** and the start screen of Rani Baker's Twine Game *Never Go To Work* in **FIGURE 3** illustrate some of the

aesthetic parallels. Both images contain a wild mix of photographs, doodle-style drawings, and vastly different fonts; both are cluttered, with significant overlap of individual elements, and overwhelming to the eye; both show provocative snippets of text which appear to hint at the content.

While not all Twine games share this aesthetic, their interfaces tend have more in common with fan zine covers than computer games. Some Twine games, like Morgan Sea's *Zine Fair Lady* (FIGURE 4), make explicit reference to the parallels between zines and Twine games. Others celebrate the retro look of Arcade games and make extensive use of color; while these elements are typically not found in Punk fanzines, they complement rather than contradict the notion that Twine game aesthetic is a Punk Rock aesthetic.

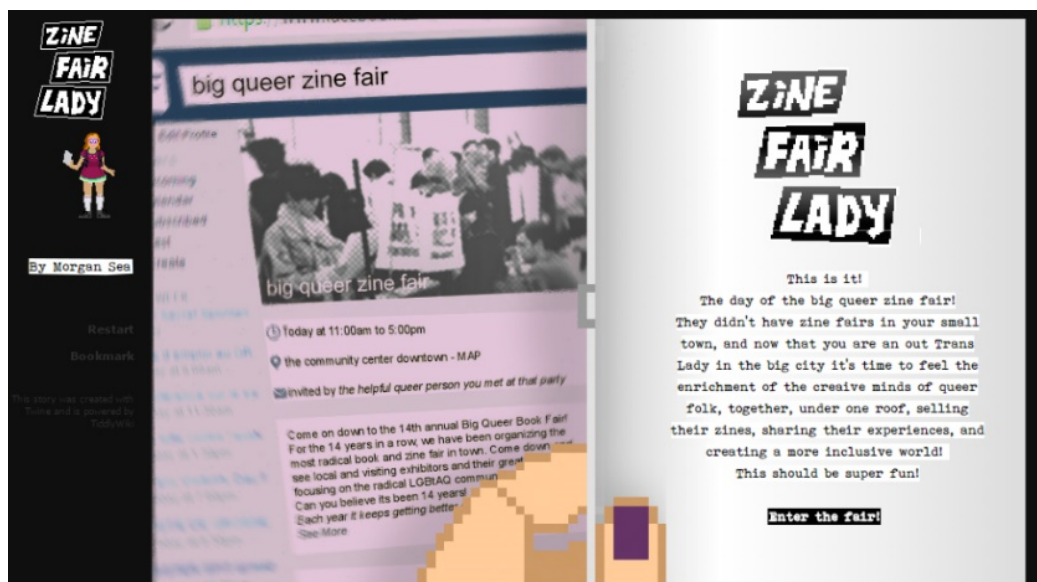


Figure 4 Start Screen of Morgan Sea's *Zine Fair Lady*

Finally, Twine games, like Punk Rock, often seek to break discursive rules with the content they present. According to Laing, punk rock favors topics which are (politically) taboo. Subjects of early Punk Rock songs include sexuality (*X-Ray Specs*' "Oh Bondage Up Yours!"), politics (*Sex Pistol*'s "God Save the Queen"), violence (*The Clash*'s "London Calling") and drugs (*The Ramones*' "Now I Wanna Sniff Some Glue"). Laing argues that "the punk attitude works to expose the mutual dependence of the concepts of normality and abnormality in sexual matters" (126). However, even though punk rock embraced diverse sexualities, it remained steeped in the machismo culture that had previously dominated the Rock'n'Roll scene. On the early days of Punk Rock, women musicians were virtually invisible. Decades later, in the 1990s, feminist and queer bands emerged with the Queercore and Riot Grrrl movement of punk rock, featuring bands like *the Screamers* and *Bikini Kill*. The Twine community, while often provocative and unafraid of strong language, is much less male-dominated than the early punk scene. In fact, with transgender and queer women writers like Anna Anthropy and Porpentine at the forefront, the opposite is the case. Moulthrop states that "Twine writers tend to come from rougher patches of cultural turf defined by neural and sexual nonconformity, gender dysphoria, and that key front of cultural struggle that is queer identity" (*Intimate Mechanics*). Likewise, Allison Harvey maintains that Twine writers include "women, genderqueer, and trans* people, poor people, older people, younger people, people of color and first-time game-makers, among others" (99). Games such as tecgothica's *Queered Static*, storytam's *Lesbian Vampire Dating Online*, and Anthropy's *Queers in Love at the*

End of the World are only a few examples which support Moulthrop's and Harvey's claim.

The analogy between Punk Rock and Twine games ends at this point. While Twine games, like Punk Rock songs, push discursive boundaries, the members of these two communities clearly differ in terms of their identities and agendas. These differences are hardly surprising, considering that the early punk movement emerged as an angry response to unemployment by young disenfranchised working-class men in Britain. Twine games, on the other hand, proliferated specifically after Anthropy's publication of *Rise of the Videogame Zinesters* in 2012. Many of the games which were published subsequently were directly inspired by Anthropy's book. Following Anthropy's advice, readers of the book embraced the new medium; the playful, colorful, surreal and often silly nature of most Twine games reflects this celebratory spirit. Some Twine games, however, take on a more somber tone.

Example: Depression Quest

Depression Quest is certainly more *The Cure* than *The Clash*, but -as the name suggests-, the darker aesthetics serve a purpose. Programmer Zoe Quinn, who co-developed *Depression Quest* with Patrick Lindsey, became the victim of hateful attacks after a jealous ex-partner detailed their relationship in a blog post, triggering the gamergate controversy. Advocates of #gamergate falsely accused Quinn of receiving a positive game review from a journalist with whom she was in a sexual relationship. After the information spread through the internet, Quinn was aggressively harassed and

received repeated threats to her life and safety. Gamergate exposed how many men perceive the increasing presence of women in gaming (and Geek culture in general) as a threat. Gamergaters expressed sexist, controversial ideas about who gets to use the label “gamer,” and questioned the status of Twine works like *Depression Quest* as “games.” Twine games, unlike Triple A games, are slow-paced, text-based, minimalist and often address the experiences of oppressed or marginalized people – in other words, they are “feminine” in the eyes of gamergaters. *Depression Quest* is a powerful example of a game that incorporates values which have historically been associated with women: compassion, empathy, patience, caring. Here, I will focus on the game itself to show how it engages interactivity to challenge stereotypes about mental illness.

Depression Quest immerses the interactor in the experience of a protagonist who suffers from depression. The game was designed with two audiences in mind: people who do, and people who do not, suffer from depression. *Depression Quest*’s Zoe Quinn explains: “[t]his game aims to show other sufferers of depression that they are not alone in their feelings, and to illustrate to people who may not understand the illness the depths of what it can do to people” (Quinn). She hopes *Depression Quest* will help “spread awareness and fight against the social stigma.” In a similar vein, the present project seeks to address both audiences who can and audiences who cannot relate to the experiences

presented in *The Deserters*, which among other themes include abuse, violence, political asylum, migration, and war.

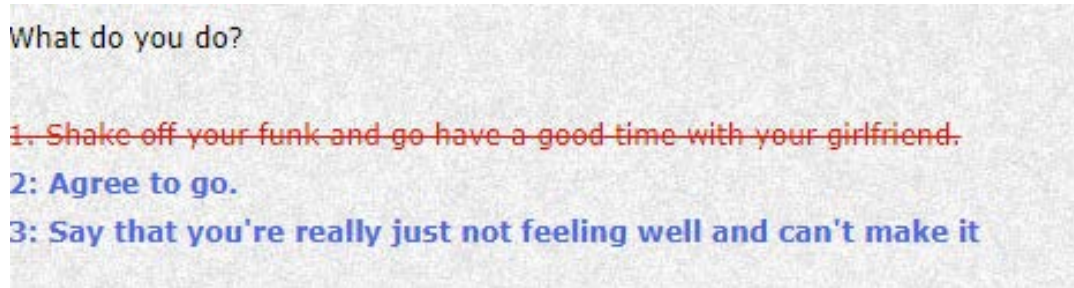


Figure 5 Screenshot from Depression Quest: Example for Player Choices

Depression Quest is text-based, but its visual design contributes significantly to establishing the sense of utter hopelessness that tends to accompany major depressive episodes: atop the text, against a grey background, the screen shows Polaroid photographs that flicker like static on an old television. This creates the impression of looking at the photographs through tired, tear-filled eyes. A unique feature of the game is the display of interactive options that are not available to the user. In the dialog box in **FIGURE 5**, the anonymous protagonist does not have the option to “Shake off your funk and go have a good time with your girlfriend.”

The developers here engage the mechanics of the game to let the interactor see the world from the protagonist’s perspective. Through the interactive component of the game, the player experiences the frustration of a depressed person: the ‘fun’ or ‘healthy’ option is right in front of them, and yet depression keeps them from choosing it. Throughout the game, healthy choices like taking medication and seeing a therapist lead

to an increase in available options; in subtle ways, the interactor learns about the needs of individuals suffering from depression. Salter, who researches depictions of mental illness, death, and suicide in ten Twine games, *Depression Quest* among them, notes that “[t]he use of restricted choices serves a pivotal role in the creation of the player’s connection with the character” (Salter, “Playing at Empathy”). She argues that Twine, unlike graphical game genres, is uniquely positioned to address subjects such as mental illness. Twine authors can engage choice flexibly and deliberately to represent even subtle differences in emotional states and experiences. Twine games can therefore “serve dual purposes as explorations or creative outlets for the Self of the creator that then become lenses into playing through the choices (and systematic oppressions) of the Other.” In other words, Twine games allow the creator to explore their own intimate thoughts and emotions, while also enabling the player to access and retrace these experiences through choice.

We have seen earlier in the discussion of hypertext that the structure of nodes and links alone does not yield an engaging or activist text. To imagine themselves in the role of the protagonist, players must have opportunity to immerse themselves in the game’s world. Marie-Laure Ryan writes: “For a text to be immersive [...] it must create a space to which the reader, spectator, or user can relate, and it must populate this space with individual objects. It must, in other words, construct the setting for a potential narrative action [...]” (14). To make an impactful, immersive Twine game, choices must be embedded in a fictional world which relates, in one way or another, to the lived reality of the player (and developer). Only then can players project themselves into the game world

and take on the perspective of the protagonist-Other. The developers of *Depression Quest* achieve this effect by providing an elaborate narrative context that sets up such a space. The immersive feel of *Depression Quest* largely derives from the deep insight players obtain into the protagonist's personal and inner life. In *Depression Quest*, passages like the one shown in **FIGURE 6** illustrate how every paragraph leading up to the choice provides intimate insight into the protagonist's relationships to self and others.

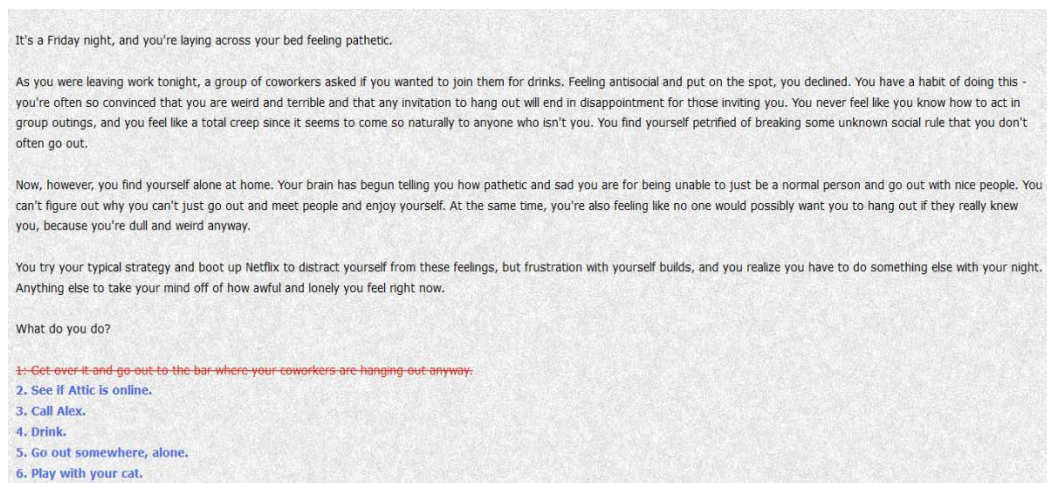


Figure 6 Screenshot from Depression Quest: Example of a Scenario

For example, the player learns how they presently feel (“pathetic”) and what triggered the emotion (“a group of coworkers asked if you wanted to join them for drinks. Feeling antisocial and put on the spot, you declined”). These sentiments are then put into a larger context of the protagonist's life (“You have a habit of doing this ...”). In the following paragraph, the narrative voice temporarily shifts towards spoken language. In the paragraph transcribed below, note the use of short main clauses chained together by

simple connectors: their effect is that the voice in the protagonist's head sounds much like an angry teenager expressing their self-loathing:

“Your brain has begun telling you how pathetic and sad you are for being unable to just be a normal person and go out with nice people. You can't figure out why you can't just go out and meet people and enjoy yourself. At the same time, you're also feeling like no one would possibly want you to hang out if they really knew you, because you're dull and weird anyway” (Quinn, *Depression Quest*).

The shift in style vividly illustrates how the protagonist's thoughts and emotions spiral out of control. On a subtler note, the content of the passage hints at the social stigma experienced by people with mental illness (i.e. being anti-social, weird, self-pitiful, and lazy). In the plot of *Depression Quest*, these accusations are repeatedly channeled through the role of the well-meaning, but passive-aggressive mother. In this paragraph, however, the depressed individual hears the accusations of society over and over in their mind, so that, in a self-perpetuating downward spiral, the individual falls deeper into depression. *Depression Quest* thereby powerfully illustrates the true problem with social stigma, and how well-meaning encouragement can push the depressed individual deeper into desperation. A careful reader-player will take in all this contextual information before getting to the choice at the bottom of the page; the choice they make will therefore be shaped by what they have learned about the protagonist.

To summarize these considerations, content – while it is not the exclusive focal point in the analysis of electronic literature – continues to play an important part in making relevant and impactful interactive fiction. In the end, language is what allows a developer

to communicate those things we have no clear, agreed-upon visual reference for, such as emotions, thoughts, perceptions, and relationships. The text-based nature of Twine and other hypertext fiction games therefore allows for explorations of the mind which other genres and media cannot accomplish for lack of subtlety. The combination of a carefully composed fictional world with the (in)ability to make choices relevant to that world is what makes *Depression Quest* a powerful example of an activist Twine game.

One issue which all authors and developers may encounter is the inability to anticipate readers' responses. Even if user testing or reader-response analysis are available means of assessment, every reader comes to a story with a different background, a different set of knowledge and experience. Many of the Twine games I have mentioned here are meant to encourage empathy and compassion, and that is the goal for my game, *The Deserters*, as well; however, there is no guarantee that a given reader will or can respond in such a manner. However, *Depression Quest* offers a kind of accommodation for the different backgrounds and experiences of its reader-playership by leaving certain aspects of the protagonist simply blank. Even though we obtain many details about their thoughts and feelings, certain aspects remain unmentioned throughout the story: the protagonist's name, age, and gender, as well as the specifics of their job; all we know is that it is boring and not much of a challenge. The demographic blank spaces can be filled in by the reader, so that they can imagine themselves in the role of the protagonist. The developers thereby avoid imposing their own identity markers – gender, race, age, ethnicity, and so forth – on the player, thereby enabling a broader audience to relate to the protagonist's experiences. Of course, there are limitations – in *Depression*

Quest, we, the player, have a significant other who identifies via female pronouns, we have what appears to be a functional family, we are in a US or at least Western, English-speaking context and so forth. However, such limits are unavoidable if the story is to have meaningful substance and content. *Depression Quest*, while it tackles a different subject, in many ways served as an inspiring example for *The Deserters*, especially in terms of the use of contextual storytelling and creating a protagonist who is “blank” enough to accommodate different audiences. I will cover these aspects later in chapter four, where I discuss *The Deserters* at greater length. I end this chapter with a final example of a Twine game which, like *Depression Quest*, influenced my work on *The Deserters*, not so much in terms of its approach to storytelling, but in terms of tackling the subject of immigration.

Example: Golden Threads

Immigration is a key theme in *The Deserters*; it seems useful to consider other Twine projects which cover a similar territory. However, while there are many activist Twine games, few address the subject of immigration. Extensive online searching yielded only one example, *Golden Threads* by Allan Xia and Renee Liang, a game which examines the lives of mid-19th century Chinese immigrants to New Zealand. The game was created as part of the Auckland Museum’s 2017 exhibition *Being Chinese in Aotearoa: A photographic journey*. Like *The Deserters*, *Golden Threads* is a bilingual, illustrated interactive fiction work based on the lives of real people. However, the individuals whose lives are presented in the game are historical figures who were not personally known to

the authors. *Golden Threads* was created as part of an historical exhibit and funded by the Asia New Zealand foundation; historical accuracy was therefore a high priority for Xia, as he explains in a developer interview. In *Golden Threads*, the player takes on the role of a Chinese villager and rice-paddy worker who sets out to find fortune in another country. The game is visually presented like a lost-and-found diary, which underscores the historical nature of the project and its emphasis on personal storytelling (FIGURE 7). The atmosphere of the game is somber and melancholic, an effect which Xia achieves by using a limited color palette (sepia and shades of black and grey). Xia's illustrations, inspired by traditional Chinese ink paintings, are complemented by the game's soundtrack, which features Chinese instruments like the two-stringed fiddle. The incorporation of these artistic elements firmly roots the project in historical China, while also adding an aesthetic component which invites the player to familiarize themselves with Chinese culture.

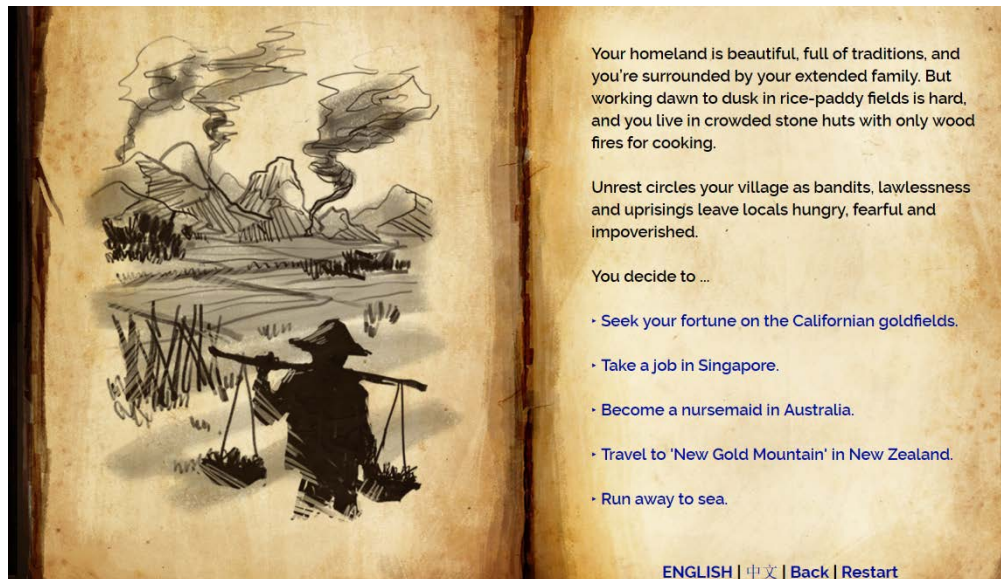


Figure 7 Screenshot from *Golden Threads*

Gameplay in *Golden Threads* is entirely text-based, with descriptive links offering options for different story paths. The narrative sections provide context for the player, allowing insight into the living conditions for rice farmers in 19th-century China. Most of the narrative paths tell stories of suffering, and the authors emphasize that hardships like poverty and violence were the driving forces behind people's decisions to leave the country. For example, the text in **FIGURE 7** hints at possible reasons why emigration may have been the only option for many Chinese people in the 19th century: "Unrest circles your village as bandits, lawlessness and uprisings leave locals hungry, fearful, and impoverished" (Xia, *Golden Threads*). Here, the narrator enumerates the miseries experienced by the locals; the example illustrates how verbal descriptions in *Golden Threads* emphasize the urgency for the protagonist to make life-changing decisions, allowing the player to imagine the struggles and hardships Chinese migrants may have experienced in the 19th century.

The individual story branches feel short, as the player reaches one of the possible endings within less than two minutes. The authors likely kept the game short because *Golden Threads* was built as an interactive museum exhibit; visitors at a museum are not likely to spend more than a few minutes on one piece. The authors needed to ensure that players could learn about the lives of Chinese migrants in a very short time, which also explains why there are no scenes or dialogues in *Golden Threads*. The game relies exclusively on descriptions which summarize larger time periods.

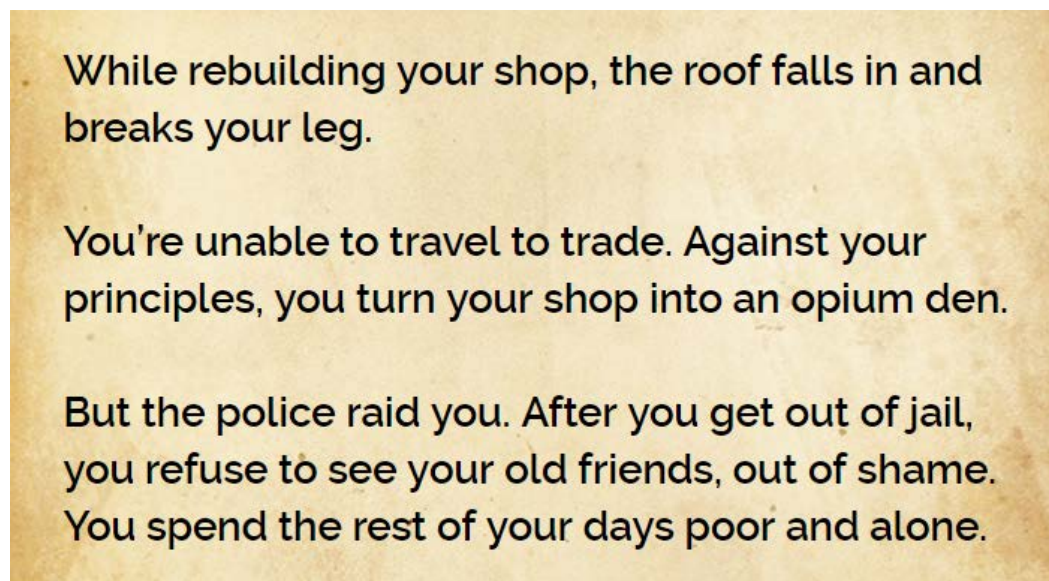


Figure 8 Screenshot from *Golden Threads*: Sample Scenario

Consider the example in **FIGURE 8**. Here, the authors describe the years of misery that follow a broken leg within two short paragraphs. The report-like style of this passage is characteristic for *Golden Threads*. A possible reason for the choice of narrative style may be game's emphasis on historical accuracy. As I mentioned earlier, the player in

Golden Threads follows the steps of historical figures; the person's identity is revealed at the end of each path (FIGURE 9).



Figure 9 Screenshot from *Golden Threads: Life of Matilda Lo Keong*

The inclusion of elements like dialogue or scenes would likely require fictionalization, which the authors avoided. In an interview, Xia states that “We had to really focus on staying truthful to history, because these are real people, you know, who have families and descendants, and [we tried] making it interesting and also respectful of history.” The issue that Xia brings up is one which I faced when planning out *The Deserters*: balancing historical accuracy with an engaging narrative is challenging. The brevity and lack of scenic description make it more challenging for the player to identify with the protagonist. The summary-approach in *Golden Threads* at times creates a sense of distance and depersonalization, as we have no insight into the emotional and sensual

experiences of the individuals whose lives are presented in *Golden Threads*. By contrast, it is the detailed narrative and dialogic passages that make *Depression Quest* so powerfully engaging. The context in which *Golden Threads* was produced – as a museum piece – likely did not allow for the kind of detail we encountered in *Depression Quest*. As an exhibit within photography collection of 19th century Chinese immigrants, *Golden Threads* is a powerful and impressive addition feature which helps contextualize and comprehend the photographs it is surrounded by. In a sense, *The Deserters* has a similar purpose, as much of its gameplay revolves around finding historical photographs, which are then placed into context through text. However, there is a key difference between the two games: While in *Golden Threads*, the reader-player takes on the role of the historical figure, I purposefully decided not to do that. My reasoning was similar to Xia's, in a sense: It felt uncomfortable and disrespectful to make up scenes and dialogues which involved real people who had passed away. Xia's solution was to only include information which could be learned from available primary sources; I decided to put the reader-player into the role of a researcher instead and confront them *with* the primary sources. Part of the issue for Xia may have been that the primary sources were in Chinese and thus not accessible to part of the exhibit's audience. I addressed the issue by translating my sources from German to English, which is, of course, much easier to do considering that both languages are related and rely on the same script. I will return to these concerns in chapter four, where I discuss the making process of *The Deserters* at length.

Chapter Review

To end this chapter, let us briefly recapitulate some of the key take-aways. The subject of this project is the making of an activist Twine game about immigration. Twine games are hypertextual games which rely on link-based choices to propel the narrative. Early hypertext theorists thought that the mere availability of interactive features subverted the power dynamic between reader and author, as it existed in print literature – making hypertext a possible venue for democratizing, activist works. However, these early assumptions do not account for the limitations of hypertext, of which there are many – in fact, hypertext are not flexible or chaotic, but coded like a fixed, stable labyrinth which the reader can traverse in different ways. The true power of hypertext becomes apparent when we consider it against a backdrop of electronic literature, of which it is one among many genres. Electronic literature rejects approaches to interpretations of digital text which rely on a print- or a content-only paradigm. Its critique takes an abundance of factors into account, including the levels of interface, code, platform, and materiality. All of these elements are treated as meaningful entities, and that includes errors, glitches, and breakdowns in the system. Twine games are a unique genre of electronic literature because they take the genre of hypertext fiction (associated with serious avant-garde works like *afternoon*) and turn it into loud, colorful, mouthy, unapologetic punk rock. The Twine community is deeply engaged in tackling contemporary and relevant issues like LGBTQ+ identities, mental and physical (dis)ability, feminism, critique of capitalism, and the presence (or rather, the absence) of minorities in the gaming industry. It is ideally situated for a project in activist making and

was therefore chosen as a venue to build *The Deserters*. In the upcoming chapter, I will dive deeper into the Twine discussion and explore how its status as an Open Source platform informs the activist component of my project.

CHAPTER III: PUNK OPEN SOURCE? TOOLS FOR ACTIVIST CRITICAL MAKING

Chapter Overview

Building on the previous chapter's discussion of Twine as an activist venue, the present chapter delves deeper into exploring the platform as a tool for activist critical making. I have previously argued that Twine, like Punk Rock, is anti-consumerist in its emphasis on openness and accessibility, evidenced by its Open Source status. The discussion in this chapter will look more closely at the Open Source movement, which has its origins in hacker culture, and its possible contributions to activist critical making. Critical makers like Kate Milberry and Steve Mann have embraced the Open Source movement's work ethic as a model for their own work in critical making (Ratto 29, 53). However, Open Source culture, like maker culture, has a problematic gendered history which we need to address before incorporating it into our activist framework. Historically, women and minorities have been excluded from hacker and programming culture, which makes it challenging for these groups to participate in the Open Source movement today. In this chapter, I address some of the ethical issues of the Open Source movement and propose that Twine, by offering an intuitive interface and a coding language which relies on literary metaphors, eases the entry into programming and Open Source dialogue for marginalized populations. Working with Twine, I argue, therefore allows us to appropriate the free software movement for activist critical making.

Hactivism, Hacker Culture, and the Open Source Movement

The terms *hacking* and *hacker* are difficult to define, because different generations and groups of hackers work with vastly different goals in mind. In their comprehensive history and analysis of hactivism and hacking, Tim Jordan and Paul A. Taylor identify seven generations of hackers; the Open Source movement, which emerged in the early 1990s after the release of the operating system Linux, is associated with the sixth generation. Despite significant differences among the seven hacker generations, there is a commonality which allows for the use of *hacking* and *hacker* as umbrella terms, and that is the key role of *the hack*. The hack is “the performance of a neat programming trick,” or, more specifically, “an attempt to make use of technology in an original, unorthodox and inventive way” (Jordan and Taylor 6). The hack typically involves skillful engagement with (computer) technologies, cleverness and creativity in programming, simplicity and elegance in its approach to problem solving, and sometimes illicit – or at least, subversive - activity. It is important to mention that this movement is distinct from destructive activities which have stereotypically been associated with the term ‘hacker.’ To underscore the difference, hackers refer to computer criminals and virus writers not as hackers, but as “crackers” (Himanen viii). However, the spectrum from legal activity to cyberterrorism is wide; many hackers would never spread a destructive virus but might think it harmless to ‘crack’ the firmware of a console or phone.

Because of hackers’ tendencies to subvert conventions in programming, humanities scholars have associated hacking with a rejection of the capitalist mode of software production. Kate Milberry argues that hacking is an emancipated form of labor in the

Marxian sense. According to Karl Marx, the worker in the capitalist mode of production is estranged from her labor. The product of labor, i.e. the object which it produces, is its material realization, or objectification. In capitalism, labor is forced upon the worker as a necessity of survival; thus, the worker experiences the realization of his labor as a loss: “It is true that labor produces for the rich wonderful things – but for the worker it produces privation” (§ XXIII). According to Milberry, hacking, contrary to estranged labor, is a meaningful, joyful expression of creative energy (54). Finnish philosopher and hacker Pekka Himanen describes hacking in similar terms: “...the hacker programs because he finds programming intrinsically interesting, exciting, and joyous” (3). His statement demonstrates that hacker culture defines itself via intrinsic motivation, as well as enthusiasm and passion for programming.

Unlike industrial capitalist labor, hacking is based on an ethos of freedom, expressed in the FOSS (free and open source software) mode of production. The FOSS approach to programming entails the free creation and sharing of software, emphasizes collaboration, and challenges the commodification of software and programming as labor. The “F” in FOSS can refer to both meanings of the English adjective “free,” *gratis* and *libre*, but the emphasis is clearly on *libre*, i.e. freedom of restrictions. Richard Stallman, the founder of the Open Source movement, famously explained the distinction: “Think *free* as in *free speech*, not *free beer*,” meaning free software should be accessible and open to others (Lessig xiv). Himanen likewise emphasizes that the hacker is free in her choice to make new technologies, because she is intrinsically motivated. On the other hand, while free-of-charge software is not inherently a part of the hacker ethic, many open source products

are also available for free (gratis) online, with payment based on donations. These kinds of products are often alternatives to proprietary software with similar functions and purposes; for example, Libre Office has features like Microsoft Word, but it is a donation-funded FOSS product. The affordability of Open Source software makes it accessible to users across the socio-economic spectrum. Moreover, FOSS emphasizes collaboration and horizontal relationships among communities of programmers, unlike the hierarchical relationships of the industrial capitalist model. Milberry states: “As a means of fulfilling one’s human potential, the FOSS mode of production fosters relations of freedom, which are incorporated into the labor process at the same time as they are embedded in the outcome of that process” (55). In FOSS, both the production process and the product embody the ethics of freedom and emancipated nature of hacking as labor.

Milberry’s argument suggests that hacking, by definition, is opposed to exploitative models of building technologies, and thus appears to be an inherently anti-capitalist and aligned with social justice goals. However, that is not necessarily the case. The ethics of the hacker community, as they are laid out in *The Hacker Ethic and the Spirit of the Information Age* by Pekka Himanen (and Linux creator Linus Torvalds in the foreword), demonstrate that hacker culture has shown little awareness to the socio-economic exclusions which happen within its own boundaries. Before proceeding with my critique, it is important to note that *The Hacker Ethic* was first published in 2001. An edition with a revised title, *The Hacker Ethic: A Radical Approach to the Philosophy of Business*, was released in 2009. It is possible that the authors have since expanded their perspective. For example, Himanen demonstrates an awareness of his significant socio-economic privilege

as a Finnish man in a more recent publication (“Reconceptualizing Development in the Global Information Age”), in which he proposes human dignity as a framework for development in the Information Age, stressing justice, equality, and caring as indicators for ethical economic growth. However, his most well-known publication is the influential *Hacker Ethic*, which has been cited for its discussion of the hacker work ethic across the fields of computer science, economics, leisure studies, gender studies, and anthropology (Castells, *Communication Power*; Webster; Brown; Coleman et al.). Even though *The Hacker Ethic* is largely an introduction to hacker ethics for self-identified hackers, the book had a wide reception in academic circles, which might be due to an overlap of audiences, as hackers tend to be highly educated. *The Hacker Ethic* has shaped the identity and perception of hacker culture in the Western world. In the following critique, I argue that the Open Source/ hacking movement as Himanen understands it is rooted in bourgeois liberalism, i.e. the denial of difference and especially, the denial of the struggle of the poor. Therefore, the hacker ethic of the Open Source movement is a problematic framework for political action which aims at social change. Nevertheless, Himanen’s work offers useful insight into labor conditions as they should be. Digital activists with social justice goals need to carefully consider the problematic origins of Open Source, so they can reinterpret and modify the hacker ethic to meet their needs.

From the preface on, the *Hacker Ethic* argues that a hacker’s work ethic is exclusively based on passion for programming. In the prologue, Linus Thorvalds begins his argument by laying out what he calls “Linus’ Law.” According to Thorvalds, all human actions are motivated by the desire to achieve one of the following three goals:

survival, social life, and entertainment (xiv). Further, he suggests that throughout our lives, we are “passing from one category to the next” (xvii). In other words, Thorvalds contends that there is an evolution in people’s personal development: we start by working for survival, evolve to working towards improving our social life, and finally, we work for entertainment. Entertainment, Thorvalds explains, includes anything from playing video games to self-actualization, for instance through creative expression (what he calls ‘Entertainment with a capital E’). Thorvalds then offers the following definition of hackers:

“A ‘hacker’ is a person who has gone past using his computer for survival (“I bring home the bread by programming”) to the next two stages. He (or, in theory but all too seldom in practice, she) uses the computer for his social ties—e-mail and the Net are great ways to have a community. But to the hacker a computer is also entertainment...” (xvii).

Thorvalds’ casual remark “in theory but all too seldom in practice, she” suggests that the reasons for women’s absence from hacker culture are apolitical and not worth mentioning. Thorvalds’ point is that hackers are motivated to work by a sense of community and passion associated with programming; he seems to think that women simply lack the interest or passion to participate. Indeed, women have historically been underrepresented in programming professions, including the game industry (Salter and Blodgett, 88). Salter and Blogett have pointed out that women are also underrepresented “professions within the industry that are traditionally more diverse (such as artists) [...]” because of the hostile male-dominated work environments in the game industry (88). In

other words, a lack of interest or passion is unlikely the reason for women's absence from the programming world; rather, women and minorities have historically been excluded from these fields. While Open Source hackers like Thorvalds would possibly reject a comparison to the game industry, hacker culture is no less patriarchal. The following discussion further shows that Thorvalds' and Himanen's hacker ethic has its roots in liberal Enlightenment ideology; we have already seen that subscribers, in their assumption of neutrality and objectivity, are often deliberately blind to political and social problems in their own ranks.

Returning to the discussion of Thorvalds' quote above, note that he assumes there is an "evolution" of personal progress, in which hackers have made it to the top of the hierarchy. According to Torvalds, "[t]hat is how something like Linux comes about. You just don't worry about making that much money" (xvii). He gives no mention to the fact that in order to not worry about money for survival, it is necessary to possess a sufficient amount thereof; he further does not discuss where or how hackers obtain the money which is necessary to take that step. His statement is indicative of his own socio-economic privilege, which he fails to acknowledge and instead projects onto his audience.

Himanen's discussion of the hacker money ethos is more nuanced, but he also does not offer any reflection on his socio-economic privilege relative to others who might want to become hackers. For instance, Himanen and Thorvalds might have considered the fact that growing up in Finland, a country with one of the lowest rates of childhood poverty worldwide (UNICEF) and the best-ranked education system in the Western

world (OECD), may have given them an early head start in their pursuit of programming for passion, a luxury which many people in other countries may not have.

Himanen's criticism of capitalism thus stays on the surface, aiming not at economic inequality, but exclusively at the work ethic associated with industrial capitalism.

Grounding the hacker work ethic in Max Weber's critique of the Protestant work ethic, he argues that flexible work time and genuine enthusiasm allow hackers to access their creative powers. On the need for economic stability, he says: "Hackers are not naive.

They are not blind to the fact that in a capitalist society it is actually very difficult to be completely free unless a person has sufficient individual capital [...]" (54). Therefore, he continues, many hackers temporarily participate in the capitalist economy; typically, they "generate financial independence by shares or stock options acquired through running a company or by working for some years around his or her passion" (54). Himanen's examples here show that he (perhaps, unknowingly) envisions hackers as educated people in the Western world who either already have significant financial resources to invest, or who have access to well-paid professions (for example, a computer science or engineering degree). Temporarily participating in the capitalist economy is compatible with the hacker ethic according to Himanen; it is not acceptable, however, to continue operating under the Protestant work ethic and giving up on hacking for the sake of making corporate software. Himanen's example is the "computer hacker's number-one enemy, Bill Gates's Microsoft," whose founder started out as a hacker, but was ultimately motivated by profit (56-57). Interestingly, according to Torvald's distinction between three basic human motivations, "money is just a proxy for other more fundamental

motivating factors,” including survival and entertainment. By this logic, profit and passion both fall into the pursuit of entertainment, meaning that in terms of motivation, there is very little difference between men like Gates and men like Torvalds and Himanen. Torvalds notes that it is difficult to purchase entertainment “that gives your life meaning” (xvi). The tacit argument in *The Hacker Ethic*, then, is not that hackers should resist capitalism, but that they should curb their desire for profit once they reach the comfort of the upper middle classes or at least proceed to make software with an open source code.

Neither Thorvalds nor Himanen say much about the lack of diversity in hacker communities. Thorvalds casual acknowledgement that “in theory” a hacker could be female further demonstrates the denial of differences which is apparent across *The Hacker Ethic*. The two authors project an attitude which is not openly hostile or misogynistic, but rather project a sense of (false) neutrality. Alison Adam writes in her critique of hacker culture: “the supposed egalitarian nature of hacker communities and their claim to be meritocracies which ignore ‘bogus’ criteria such as age or race tend to repeat the old liberal arguments for equality which feminists and others have discredited as passive instruments which maintain the status quo in their denial of difference” (145). The “old liberal arguments for equality” are rooted in the Enlightenment emphasis on reason and objectivity, and essentially state that sexism, racism, and other social forms of oppression do not exist in rational, advanced societies. The same claim is at the root of covertly right-wing campaigns like #alllivesmatter and is frequently used to discredit social justice activists by accusing them of tilting at windmills.

Overall, it seems that the hacker ethic of the Open Source movement is not only quite compatible with capitalism, let alone the patriarchy – it is utterly drenched in both. What Himanen and Torvalds challenge is not capitalism per se, but an older model of capitalism. They subscribe to a libertarian approach to work compatible with *network society* as Manuel Castells describes it in *The Rise of Network Society*, which Himanen cites frequently. In fact, Castells provides the epilogue to *The Hacker Ethic*, where he offers a highly condensed version of his argument in *Network Society* in support of Himanen's theory, stating that Hackerism embodies the spirit of the information age. Himanen's full title – *The Hacker Ethic and the Spirit of the Information Age* – is, of course, a spin on Max Weber's *The Protestant Ethic and the Spirit of Capitalism*. The title suggests that just as the protestant ethic embodied the spirit of *industrialism*, the hacker ethic embodies the spirit of *informationalism*. According to Castells, these are the techno-economic paradigms underlying industrial and network society, respectively. Castells argues that the former was brought about by energy revolutions in steam and electrical power. Industrialism is hierarchical, bureaucratic, clockwork-like, strictly organized, and repetitive like Ford's assembly lines. Culturally, this techno-economic paradigm produced the kind of one-dimensional mass communication which the critical theorists of the Frankfurt School were concerned about. By contrast, *Informationalism* and its socio-cultural dimension, network society, were brought about by changes in "information processing and the impact of this technology on the generation and application of knowledge" (*The Rise of Network Society* 159). Specifically, Castells mentions microelectronics, which have found application in computer technologies

(nowadays, these include networked cell phones and other 'smart' technologies), and genetic engineering (which has enabled the modification and technological creation of living organisms). Much of the research which brought about the technological revolution of Informationalism was funded by the U.S. department of defense in the aftermath of WWII, during the Cold War years. Moreover, Informationalism has roots in business, specifically rapidly growing start-ups such as Dell Computer, Cisco Systems, and Apple. Castells writes: "To be able to transit from their entrepreneurial origins to being innovation-driven, large-scale organizations, these new businesses built on another fundamental component of informationalism: the cultural source of technological innovation represented by the hacker culture" (177). These companies' rapid growth was possible because they relied on the hacker mode of technological innovation. They recognized that a flexible work environment helped spark their employees' creativity and innovative spirit. Thus, the hacker work ethic was absorbed into corporate culture early on and proved to be an effective means of increasing profit.

Informationalism forms the techno-economic basis of network society. The network serves as a metaphor to understand the structure of human relationships, organizations, institutions and power relations under the new technological paradigm. Castells emphasizes that networks as such are apolitical: "As a social form, they are value free" (167). However, networks are programmed by social actors and institutions to achieve specific goals. The paradigm shift from industrialism to informationalism has hardly changed the goals pursued by social actors and institutions: for example, in business contexts, the primary goal is still profit; in military contexts, the primary goal is to have

more destructive power than everybody else. The key change from industrial to network society occurred on the level of structure and organization. The quick world-wide proliferation of the networked approach to economics is hardly surprising, considering that “productivity and competitiveness are vastly enhanced by this networked form of production, distribution, and management” (168). As an organizing structure, network society embraces flexibility; socially and culturally, the new paradigm breaks with the static social roles of the Protestant ethic, which have confined disenfranchised groups in industrial society. Network society does tend to offer more opportunities to people outside the dominant culture; for example, companies might hire people across a broader spectrum of identities, such as sex, gender, and sexual orientation. However, the increased acceptance of difference and diversity in network society has little to do with an ethics of equality and justice; rather, just like it recognizes the positive impact of flexible work modes on employees’ creativity, informationalism recognizes the economic benefits of a wide range of identities. Through increased diversity, corporations can exploit the combined brainpower of employees with different perspectives and strengths. In other words, informational capitalism does away with the protestant work ethic and restricting moral guidelines not because they are oppressive, but because they are unnecessary obstacles which stand in the way of profitability. An increase in educational and professional opportunities for women and minorities is a side effect of the networked economy rather than an intentional goal. Network society and the hacker ethic as such do not make for a more just, equal society, as both are just as compatible with ruthless greed for profit as industrialism and the protestant work ethic before it.

The above interpretation of *The Hacker Ethic* does not necessarily invalidate Milberry's argument that "[h]acking and the FOSS mode of software development offer a contemporary example of Marx's emancipated labor" (55). The hacker ethic encourages working out of intrinsic motivation, and rejects unfulfilling work which is externally imposed on the employee. The activity of hacking can thus indeed be fulfilling in a Marxian sense, as the hacker experiences self-actualization in the production process, and chooses to freely share the product with the community. However, the term *emancipation* may not be appropriate in this context, if we understand emancipation in the Marxian sense as referring to the oppressed working classes. Hacking started as a creative activity of MIT graduate students in the 1960s (Himanen 186); these educated, white, middle- or upper-class men working at an elite institution hardly experienced the same form of oppression as did Marx's 19th century factory workers. As the previous discussion demonstrated, hacking, at least ideologically, was long in the hands of socio-economically (and, by extension, educationally) privileged men. We don't know much about poor people, or people of color, or women, or people outside the Western world who engaged in hacking in the early days; if they did, they likely struggled to access the resources and knowledge which men like Linus Thorvalds take for granted. The hacker ethic, as laid out by Pekka Himanen, is by no means anti-capitalist or anti-patriarchal; it rejects industrialism, and capitalism as it existed up until the 20th century, but in many ways, it embraces libertarianism. Himanen shows some awareness of the issue, as in his brief subchapter on *caring*, he acknowledges that "[t]he logic of the network and the computer alienate us from direct caring, which is the beginning of all ethical behavior"

(134-135). He also knows that “at moment of this writing, only about 5 percent of the world’s people have access to the Net (of which about half are in North America; Africa and the Middle East together have fewer users than there are people in the Bay Area)” (130). However, these remarks remain mere side notes, as Himanen, intentionally or not, envisions a highly privileged audience. To make the Open Source generation of hacking work for equality and justice, its ethical standards must focus not on further empowering the privileged, but on empowering those who have previously been excluded.

Critical Making and the Open Source Movement

Critical making scholars who want to incorporate Open Source principles into their work for activist ends need to address the problem of exclusivity in the free software movement. Ignoring the marginalization of women and minorities in the Open Source community and adapting its ideology without question will only reinforce the power of elites. Consider, for example, Steve Mann’s concept of *maktivism*, which combines “the DIY (do-it-yourself) ethos of home renovation with the DIT (do-it-together) ethos of the GNU Linus and Free Software movement” (30). Mann stresses that a “Maktivist is a maker who is authentic – not a poseur ... *or someone just following a trend or doing it for money, to get tenure, or to be popular*” (29, my italics). By emphasizing authenticity, Mann echoes Himanen’s and Thorvalds’ insistence that hacking must be motivated exclusively by passion: financial or career-based motives render the act of making / hacking inauthentic. These criteria for authenticity are problematic, as it shows the same naivety which is evident throughout *The Hacker Ethic*. Mann does not interrogate his

own position on the socioeconomic and educational spectrum (he is a white, fully tenured engineering professor in Canada). He does not address the fact that his access to resources as a maker and the luxury of working purely out of passion are a privilege inaccessible to many others. Moreover, Mann's notion of authenticity assumes that our motives are neatly separable, one-dimensional, and always clear to ourselves. To demonstrate his own integrity, Mann states that "this chapter you are now reading was written using LaTeX on a computer running GNU Linux, rather than Microsoft word, partly because Microsoft is so anti-DIY, that many of us are opposed to Word on moral and ethical grounds..." (31). Like Himanen and Thorvalds, Mann paints Microsoft as the capital enemy of the ethical hacker. But he does not consider that while Microsoft products are indeed highly black boxed, people who have the skills to use a Linux operating system are highly educated and already have a technological literacy which is far above average. Overall, it seems that the Mann's notion of maktivism is, perhaps unknowingly, as exclusive as Thorvald's and Himanen's approach.

By contrast, Kate Milberry's discussion of digital DIY practices and Open Source principles explicitly emphasizes the importance of empowering marginalized populations. Milberry uses the term "tech activism" to describe the activities of "hackers, coders, and self-described geeks who subscribe to the politics of the Free Software movement yet are committed to the goals of the newest social movements" (53). The key distinction lies in the second part of the definition: tech activists are committed to social justice, which is not necessarily the case for everyone who self-identifies as a hacker or as a hacktivist, i.e. as an advocate of the free software movement. Tech activists use their

skills to “assist activists in their social justice work by providing secure communications and enhancing privacy and anonymity online” (57). Because activists are likely to be under state surveillance, software such as *GNU Privacy Guard* (GnuPG) can help protect messages from the “‘warrantless wiretapping’ conducted in the United States by the National Security Agency and aided by major telecommunication carriers” (57). Milberry mentions several such technologies of resistance, which, taken together, help rebuild the internet in a more democratic fashion. Among her examples are *Crabgrass*, which offers a secure, open source alternative to social networks for activists, as well as open, secure text messaging services such as *CryptoSMS* and *TxtMob*. Cases such as these show that hacktivism has the potential to help build a fair, socially just internet, and that it is possible to re-interpret Open Source ethics in more inclusive ways. However, it is vital that Open Source hacker culture is willing to critically assess itself and acknowledge its elitist roots; most importantly, it must reject toxic masculinity, and demonstrate its solidarity with those it has previously excluded.

A Punk Rock approach to Open Source via Twine

Most Open Source software products – especially the more purist versions of Linux – have minimalist interfaces that require a high degree of technical expertise to navigate; in some cases, the user controls the system entirely through console commands. Users with an average technology literacy are likely not familiar with text-based navigation and non-visual interfaces. Twine is different from many other Open Source products in this respect, largely because its language and structure rely on widely

accessible metaphors, often borrowed from the familiar realm of print literature. In this section, I will demonstrate what makes Twine approachable for people who have no background in coding, while also introducing some of the key technical concepts that will become relevant in the upcoming discussion of the project. Please note that there are several different story formats for Twine; the present work focuses on Harlowe 2, which serves as the default format for Twine 2.0. Most points made below apply to all Twine story formats, however the specific examples of code are taken from Harlowe 2.

In Twine, the game is referred to as a *story*, and its basic building block is called a *passage*. In html, these elements appear as *tw-story* and *tw-passage* and can be styled in CSS accordingly. While changes to the *tw-story* element affect the entire game, alterations in *tw-passage* only affect the current passage. However, the choice of labels for these Twine elements shows an emphasis on storytelling rather than the technical side of programming. For users unfamiliar with coding, the choice of terminology makes the platform less intimidating and more accessible. According to Jane Friedhoff (2013), the passage system in Twine “helps translate the game creation process to a potentially more familiar paradigm” (4). Moreover, the labels serve as an aid for users to understand the purpose of each element in the program. Consider, for instance, the choice of *passage* for a hypertext element that elsewhere has been called *lexia* (Landow 2-3, *Hypertext 3.0*) or *node* (Berners-Lee). The word *passage* has a variety of meanings in American English, but in a literary context (which is provided through the label of Twine’s core element, *story*), a passage is a segment of text. Unlike other textual units like paragraphs or pages, a passage does not have any fixed parameters (such as the physical form that defines a

page, or the line breaks that make a paragraph), but instead, its boundaries are defined by its content and a reader's interpretation thereof. With the length, shape, and content of a passage being left up to interpretation, Twine's passages offer a flexible concept of textual units which authors can adjust based on their storytelling needs.

Apart from its meaning in literary contexts, *passage* has both a spatial and a temporal dimension: on the spatial axis, passage can refer to a path or pathway, often between two buildings or walls of some kind; on the temporal axis, there is the literal *passage of time* and the idea of a *passage* as a journey. In the context of interactive fiction, the dimensionality of *passage* reminds us that the reader – who is, of course, also a player – encounters the text as both static and dynamic. The reader of an interactive text is the metaphorical traveler who traverses the work following a choice-based path.

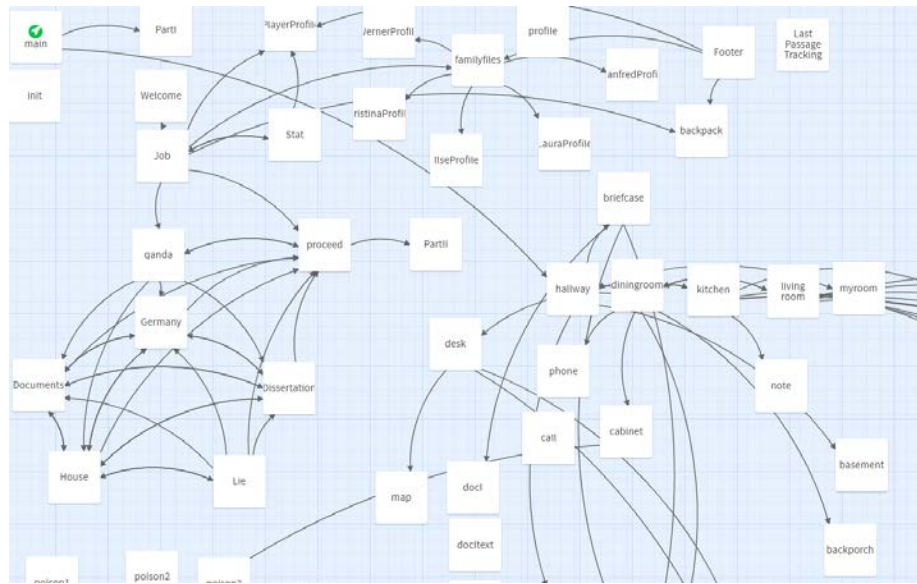


Figure 10 Corkboard Structure of Twine - Example: The Deserters

Passages in Twine are visually represented through squares which resemble notes (FIGURE 10), while the surface underneath functions as a story board, not unlike like a cork- or magnetic board. The layout of Twine’s interface allows the author to shift the position of the passage-notes via drag and drop, so that the process of making a Twine game is like activities of writers, such as brainstorming, storyboarding, or outlining.

FIGURE 10 shows that Twine authors have interpreted the corkboard structure of Twine’s interface an aesthetic component of their work, as their arrangement of passages takes interesting and meaningful shapes. Jane Friedhoff states that “the way which Twine visually formats the game files (in terms of their content and connections) speaks to a creative process that is more analogous to writing than it is to coding, making it a more familiar space for those without code experience” (3). The emphasis on aesthetics and creativity over technical details, along with the avoidance of unfamiliar technical

language, makes Twine an inviting space for storytellers who have no prior experience in programming. Moreover, acclaimed interactive fiction author Emily Short states that the corkboard structure “encouraged thinking about the work structurally rather than focusing on a single linear path at a time.” In other words, the corkboard interface mirrors the structure of interactive fiction itself and allows authors to visualize the hypertext as they are creating it. The outlining, storyboarding, and writing of a story can all happen in the Twine interface; outlines and notes can easily be turned into drafts for a complete story. In the next chapter I will demonstrate how I took advantage of these features while building *The Deserters*.

Twine is also an excellent learning venue for beginner game makers, as it helps authors shift from thinking about stories in terms of linear, static text towards and interactive, rule-based game. Anna Anthropy points out that a key takeaway from working with Twine is “an understanding of how to track the flow of a story with flags and variables: ‘Has the player seen this yet?’ or ‘How many times has the player done this?’ This is critical for any game involving a long and somewhat specific narrative” (170). As the upcoming chapter will show, I had a similar learning experience in my own making process, as Twine helped me think through my project in interactive terms. For example, I needed to build a feature which allowed me to check whether a player had already found a certain file or photograph, so that I could change the passage text depending on the player’s current level of information. In Harlowe 2, the story format which I used to create my project, an easy way to accomplish this is via the (history:) macro (a macro is a shorthand command for a set of instructions to the computer). The

history macro is essentially just an array, or a series of similar objects. Every time a player visits a passage in Twine, that passage's name is fed into the history-array. The history array is thus a record of the player's particular iteration through the story. Let's say I have created a passage named "chapter1" and I want to know if the player has already visited this passage. Depending on whether or not that is the case, I want to tell the player either "welcome" (if they have not seen the passage) or "welcome back" (if they have not seen the passage). The following bit of Harlowe 2 code accomplishes this:

```
(if: (history:) contains "chapter1")[Welcome back!] (else:) [Welcome!]
```

The example shows that Harlowe 2 code is close to human language and quite intuitive. The purpose and functioning of the "history" feature can be understood by users with no background in coding, as it relies on metaphors which are borrowed from everyday English. Even the verbiage and syntax are such that most speakers of English can identify the purpose behind a given line of Harlowe code. Consider, for instance, that we created a story with two different endings. In Twine, this means we will need two ending-passages; let's call them "happy" and "sad." For each ending, we want to show a different epilogue. One way of coding this would be the following:

```
(if:(history:)'s last is "happy")[show ?happy_epilogue] (else:) [show ?sad_epilogue]
```

Essentially, we are asking the game to give us a happy_epilogue if the last entry in our history array was "happy," or, in other words, if the player has visited the passage named "happy" prior to arriving at the current passage. Note the use of the English possessive 's: *(history:)'s last* refers to the history array's last entry. Harlowe borrows from English syntax to express that one of these items (last) *belongs to* history, i.e. is an

entry in this array. The same expression can be used for all arrays in Harlowe, and apart from *last*, we can also use this structure to obtain an array's *first*, 2nd, 3rd, etc. entry. There are several advantages for users unfamiliar with coding. For one, the very existence of the history macro is helpful; Twine authors do not need to hardcode an array which tracks the visited passages. Secondly, the label "history" allows someone who is unfamiliar with concepts like arrays and variables to understand the purpose of the macro. Thirdly, the syntax is directly based on English grammar, which helps users understand the relationship between the array and the elements within it.

Overall, Twine (and its different story formats, including Harlowe 2) is written with an audience in mind that has never programmed before, and may even be intimidated by the idea of coding. Anthropy summarizes the problem:

"Digital games largely come from within a single culture. When computers were first installed in college campuses and laboratories, only engineers had the access to the machines, the comparative leisure time, and the technical knowledge to teach those computers to play games" (5).

Historically, games, and most programming languages used to make games, were created by and for a small group of experts (mainly educated Caucasian men). Neither the games nor the tools to make them were created with marginalized populations in mind. Twine therefore fills an important gap: it is built for an audience who is new to programming. It offers a creative outlet for people who feel uncomfortable in the patriarchal world of AAA games and game creation. Twine's macro-based code is semantically and syntactically similar to English, which eases the transition from human

to machine language for newcomers to programming. With its focus on interactive fiction, Twine may not be a platform for making interactive visual games, or 3D animations, but in many ways, it is among the most progressive tools in game making.

Chapter Review

In a context of activist critical making, the Open Source status of Twine matters because it contributes a culture of openness, sharing, and collaboration, as well as a work ethic based on intrinsic motivation and passion. More importantly, Twine opens the floor of Open Source discourse to new audiences. The discussion earlier in this chapter showed that Open Source culture, like the culture around the gaming industry, has historically excluded women and minorities. Like game-making, being an active contributor to the Open Source community requires a high level of technological literacy that marginalized populations have been largely deprived of. Twine provides an open invitation to participate to people who have been excluded from these communities. It thereby rejects the elitist elements of hacker culture and sets a standard for what activist Open Source work could be if it was more inclusive. In other words, Twine brings the Punk Rock not just to electronic literature, but also to Open Source culture. The previous chapter showed that Twine has indeed attracted diverse identities to game making, which is evidence of its success as an activist Open Source medium.

Having examined some of the technical features of Twine as an ethical tool for activist critical making, we can now move on to discussing the project itself and the

process of its creation. The following chapter will look at the creative aspects of this dissertation project and examine them in a context of activist critical making.

CHAPTER IV: THE DESIGN PROCESS

Chapter Overview

Having established a theoretical framework and tool kit for activist critical making, we can now move on to a discussion of the project itself. In this chapter, I describe and analyze the making process of *The Deserters* in detail. I begin with a brief note on methodology. I then discuss the development of the project. As I address each stage of the making process individually, I lay out my reasoning for the choices I made, including transcription and translation of texts, presentation of text and images in the game, narrative choices, aesthetic choices, and choices in the structure and arrangement of the code. Finally, I reflect on the project and, returning to my initial inquiry, address the extent to which Twine served successfully as a tool for activist critical making in the case of *The Deserters*.

A Note on Methodology

This dissertation does not have a traditional methodology chapter for several reasons. For one, I would argue that this is a dissertation about activist critical making *as a method in the humanities*. All previous chapters have served to build the framework for this method, while the present chapter demonstrates what activist critical making looks like in practice. Secondly, because this project is interdisciplinary, I have borrowed elements from several qualitative methods at different stages of development. I will discuss these methods as they came up during the design process, in the section in which

they are most relevant. The discussion of methods is thus embedded within the overall analysis of the design process which follows below.

Documentation of the Making Process

Throughout the making process, I documented my design choices by saving the Twine game to a new draft every time I made significant changes or added new passages. I collected over 70 drafts of the game in total, which, when viewed sequentially, illustrate the different stages of the design process. These drafts are useful because they allowed me to return to particular moments of the design process and look at the way in which I implemented text, images, and other elements at different stages. Being able to return to an older version of the game's code allowed me to look at any changes I made in detail, and analyze my own thought processes as I worked on different elements of *The Deserters*.

At key moments during the process, I recorded walkthrough videos of the entire draft that was available at the time, using a screen capture tool called Tiny Take. During each take, I would read out the text shown in the passage and follow every story path I had coded so far, to ensure that the recording reflected the full gameplay experience. This method of documentation is inspired Dene Grigar's and Stuart Moulthrop's project *Pathfinders*, which uses so-called *Traversals* to preserve and document early electronic literature. As part of the project, participants traverse through a work of electronic literature, i.e. they explore every possible path through any given interactive piece, while commenting on the steps they take in a speak-aloud protocol. Whenever possible, Grigar

and Moulthrop recorded a traversal by the author the work, and by someone who was new to the piece. These recordings are then made available to the public along with interviews and collections of relevant items (such as an early version of the work on floppy disk). Grigar and Moulthrop's audience are primarily "scholars wanting to experience the work in its original format;" the *Pathfinders* project therefore provides "access to video documentation of the works in performance on a computer with which the work would have been originally experienced." Grigar and Moulthrop's research focuses on documenting existing works of electronic literature, its content, its reception, and the author's reflection thereof. This dissertation examines an emerging work, highlighting and documenting the design and development process, as well as the final product. The traversals are therefore a helpful way of recording the emergence of *The Deserters*, along with the drafts I have collected over time. Authoring the game taught me that it is easy to get lost in detail; the recordings were most helpful in getting a sense of the work as a whole. In this chapter, I use screen shots of the game interface and code to illustrate what I did and why. The content of the chapter is the result of my carefully reviewing the materials I gathered, including the game drafts, traversals, and any notes I took throughout.

My Mother, My Archivist: Accessing the Records

When I decided to explore my family's heritage for my dissertation in early 2018, I began searching for materials to work with. Essentially, what I was looking to find were records which documented the events in the lives of my grandmother Ilse and my mother

Kristina. A record is “a piece of information that has been captured on some fixed medium” (Millar 3). Records hold documentary value and can serve as physical evidence for events which occurred in the past; they are the raw material that makes up physical and digital archives. Because records are often created as a “by-product of a process or transaction,” we tend to interpret records as more authentic and truthful representations of history than works of art and fiction (5). It is therefore important to keep in mind that while records hold a claim to authenticity – imagine, for instance, a marriage license with an institutional stamp, a faded date and illegible signature – they could be forged or contain false information. In the context of this dissertation, I work with the records collected by my family, and I believe it is relatively safe to assume that they are largely trustworthy. However, they have not been appraised, and there is no guarantee of authenticity. That being said, *The Deserters* is not an archive. While it contains archival elements and records, its primary purpose is not preservation, but critical scholarship and activism.

When I began searching for records, I reached out to the surviving members of my maternal family: my mother Kristina and her brother, my uncle Manfred. I knew that Ilse had kept some of her documents and letters; I also knew that her two children were in possession of these documents. Unfortunately, I did not have direct access to any of those records: the documents were in Germany, and I was in the United States. I originally planned on travelling back home, but unfortunately, the project coincided with my Green Card application process, which meant that I could not leave the country. I therefore relied on Kristina to gather the documents on my behalf.

Not having direct access to the materials made the acquisition process challenging; in an ideal scenario, I would have scanned the original records to obtain the best possible quality, but that was not an option. Instead, my mother went through all the possible corners in our house and curated whatever she could find on her side of the family. Kristina found photographs from between the late 1930s and now, as well as a stack of documents, including letters, school reports, and passports. She transported what she had found to an office supplies store and asked for copies in the highest possible quality, which were then shipped to me in a thick package. Two weeks later, the primary materials for my dissertation arrived on my doorstep.

The Trouble of Information Gaps

Confronted with a pile of unsorted documents, I started to work through the material by identifying people in photographs and establishing a rough time line of events. My family helped me identify names, dates, and locations whenever possible, but even with their help, we were unable to identify everyone. I realized that some of that knowledge was lost. Initially, I planned to exclude photographs which contained unidentified people, because I wanted to avoid gaps in information.

However, gaps in knowledge are part of piecing together history. Commenting on the ephemeral nature of tangible materials, Jentery Sayers writes that “History, or the work of history, will never be complete. The circuitry of the past will never be known all the way down, and its context will never be fully recovered from the stuff at hand” (3). Attempting to recreate past events in full accuracy is a futile effort. Moreover, I have

previously emphasized that *The Deserters* builds upon an ethics of openness and honesty. Therefore, rather than ignore or hide the gaps in knowledge, I allowed them to be just that, and they became an integral part of *The Deserters*. On occasion, the player will come across an item or photograph which is tagged with a note such as “family friends, names unknown” or “ca. 1930s, exact date unknown.” The challenge to the player – and to myself – is to accept the lack of information as what it is, even if it may feel unsatisfying.

Storyboarding & Arrangement



Figure 11 Story Board for *The Deserters*

I experimented with different approaches to organizing the materials. I identified a chronology of events and sorted photographs, journals, letters, and documents

accordingly; using colored notes and an empty wall, I created several parallel visual time lines. In **FIGURE 11**, the horizontal edge of the image represents the time axis t . The vertical axis is only meaningful for the bottom third of the image, where it indicates rising and falling action within the story.

The blue notes signify historical events relevant to the story, including the beginning of National Socialism in Germany, World War II, as well as the rise and fall of the Berlin war. In the top right corner, I used bright pink notes to jot down current political issues which bear parallels to the story. For example, I included the recent trend towards racism in the Western World, as this project takes a clear stance against such developments and seeks to instead promote compassion towards others, whoever those others may be. The first set of green notes indicate the birthdates of people relevant to the story, which helped me determine who was alive to witness the previously noted historical events. The yellow notes indicate the settings. Purple notes chronicle events in Ilse's life (the arrangement of the notes here indicates a rough story arc), and salmon colored notes show events in Kristina's life. The second set of green notes shows what documentation and materials are available as evidence for a given event in Ilse's or Kristina's life, which helped me locate information when I wanted to look up any of the items on the board in my materials.

While the storyboarding wall may seem like a simple tool, it was useful in maintaining an overview of the narrative elements of *The Deserters*. The previous chapter discussed the interface of Twine, which looks quite like my storyboarding wall. I could thus directly transfer the above schematic into Twine, using passage to represent

the notes; it served as my first draft of *The Deserters*, and even though I scrapped much of that version, many of the passages I created continue to exist in the current draft. The first traversal demonstrates this version of the game: the idea was that each relevant character, event, or item would need its own passage in Twine. Because object-oriented programming is limited in Twine, I chose to approach the coding of the project by treating each passage as an object. The current version of the project still operates according to this logic.

Ethical Questions and the Inclusion of Private Information

I was able to obtain several institutional records which belonged to, or were filed by, my grandmother. Some of the documents contained information which would be considered confidential, such as medical records. I discussed the issue with the surviving members of my family, and we agreed that it would be acceptable to share most of those files with the audience of Ilse's story. Ilse passed away fourteen years ago, and her two children and I are her only close family. We know Ilse was open about her medical issues and struggle with depression, and while we cannot know for certain, we are confident that she would support this project if she was alive today. Moreover, Ilse's struggle with physical and mental health issues are an integral part of the story, as they were part of the adversity she faced and overcame. Her story is all the more powerful with these aspects included. Finally, I hope for this project to have an impact on others, and to share our family history is an act of resistance against the stigma around mental and physical illness: instead of responding to such conditions with shame, I want to demonstrate

through *The Deserters* that I take great pride in being Ilse's granddaughter *because* she was honest about her conditions and actively sought out help. Part of the message I hope to incorporate in this game is that individuals who seek out therapy and psychiatric care should be commended rather than stigmatized, because they address their issues with honesty rather than burying them or self-medicating. Moreover, Ilse's story of overcoming demonstrates that medical issues can become a source of strength rather than a point of weakness both for the individual who suffers them and for those who love and support them. Having thus weighed the ethical concern of sharing Ilse's medical records against the benefit of telling a powerful story about overcoming depression, I choose to include these details of her story for the sake of fighting the stigma of mental and physical illness.

Apart from medical records, relevant documents include school records, diplomas, passports, and ID cards. These documents are of interest because they not only reveal information about Ilse – for example, I learned that she took classes at the university as part of an educational program for older adults – but they also offer insight into the historical, social, and cultural contexts which shape the story; Ilse's passport from Eastern Germany, for instance, explicitly states “*Not valid for West Berlin,*” thus offering evidence for the limited freedom of travel which citizens of the German Democratic Republic were subject to. Moreover, the institutional records do not exist in isolation, but they are frequently referenced in the journals and letters, adding to the credibility of each document. For instance, Ilse reports in her journal that “school was easy” for her, and that her teachers encouraged her to attend a higher-level school even

though this was extremely uncommon for girls at the time, especially in rural areas. Ilse's report cards and diploma support this claim, as they show her excellent grades and frequently include personal evaluations by different teachers, all of whom praise her intellect and personality. These cross-references between Ilse's own writing and texts which were composed about or for her increase the density of the narrative, as they reveal connections between the individual bits and pieces that make up the fabric of the story.

Narrative choices

The current version of the game consists of a frame story and an 'inner' plot (my family's story). The frame story provides context and opportunities for reflection: the player becomes my virtual research assistant and is sent to Germany, helping the in-game character *Laura* gather family documents in her former home in Germany. Players search locations which are modelled on real places, specifically the house I grew up in, and retrieve the archival materials that I have been working with for this project, i.e. the texts and images that tell my family's story.

Initially, I planned on creating a fictionalized version of my family's history instead: the members of my family would have appeared as playable characters, and the player would have relived their decisions through choices in Twine. Many of the Twine games I mentioned in previous chapters, notably *Depression Quest* and *Golden Threads*, take the approach of placing the player into the role of a marginalized identity, with the intent of showing the player how others experience the world. However, as I started working on the project, I became increasingly uncomfortable with the notion of a story

that turned the experiences of real people into an adventure game. It felt both challenging and ethically problematic to gamify traumatic lived experience; even in a “serious” game, the playful, casual clicking of links cannot begin to capture the severity of some situations.

As I worked with the materials themselves, I spent a significant amount of time translating and digitizing texts composed by my grandmother and mother, and I realized that the most compelling version of the story already existed in their own writing. I began to experiment with a more documentary-oriented approach, in which the player, rather than re-live my family’s experience, would encounter archival materials and re-live *my* experience of their discovery. I chose a self-referential narrative because it allowed for honesty in storytelling (as actual parts of the project process became part of the story) and it provided the context I needed to discuss my family history and include authentic materials. This second approach seems more ethical to me, because it preserves the voices of my grandmother and mother rather than rewrite them. Moreover, it solved the issue of fictionalization – I no longer feel compelled to fill every gap in information, because this second version does not claim to be a seamless narrative. Rather, it lets us acknowledge that there are gaps when we talk about the past – all we have are the material traces others have left in the world. *The Deserters* is not a story I am telling on behalf of my grandmother and mother; rather, it is a game that lets the player re- and co-construct their stories with them, by taking the material traces they left (and are leaving) in the world and making them accessible to a wider audience. In the Twine environment, the family ephemera I have collected become pieces of a digital quilt which readers sew

together as they play, creating a slightly different pattern – and possibly new insight – with each iteration.

I chose the house I grew up in as a setting for the game because it is the last location in which the documents – at least a significant portion of them – was stored (even though the house was built by my paternal family). Essentially, the player takes on my mother’s role, who became my family curator and archivist, but also an important resource of information and reflection. By giving the reader-player her role, I am emulating to a certain extent the conversations and discussions that evolved between my mother and myself during the making process. I can thereby offer the player insight into the ideas and processes of the project, but I can do so without disrupting the frame narrative.

The Player’s In-Game Character

In the beginning of *The Deserters*, players are prompted to enter a name for their character, which is assigned to a variable. In subsequent passages, the non-playable characters (NPC) of the game address the player by their name. The option of choosing a name personalizes the game experience, and it allows players to take on an identity of their choice; seeing one’s chosen name appearing in the game’s text may help players become immersed in the game and identify with their characters.

To create an inclusive game environment, I wanted to use gender-neutral language throughout; the narrative point of view commonly used in interactive fiction, the second person singular, lends itself to such neutrality. Since there are no instances in

which the character is referred to in the third person, pronouns are not a concern. Instead, the use of the second person singular creates the impression that the player is entering a conversation of which they are an integral part.

A second personalizing feature allows reader-players to choose a profession. However, they are only given four options, three of which are quite similar: they can be an historian, a librarian, or a digital humanist. When reader-players can choose to be librarians in *The Deserters*, their character profile reveals a brief description of their jobs:

You are an outreach librarian. During your day job, you often work with underrepresented communities, including poor and homeless people, people with disabilities, LGBTQ+ youth, refugees, recent immigrants, older adults, veterans, or ex-convicts. You help people get access to books, of course, but you also teach information literacy: that means you provide people with skills and tools to navigate the floods of data they are hit with every day on the internet, so they can find properly researched information. Once a week, you teach an information literacy class at a local women's prison, and every semester before school starts, you host a book-swap event where locals can donate or pick up free books and learning materials. You're a warrior of justice and a true modern hero.

The above text appears when the player chooses to play a librarian. The other choices come with similar job descriptions. Here, I focus on discussing the librarian as one possible role for players; the argument can be extended to include the archivist and the digital humanist.

By opting to let the player take on the role of a librarian or related profession, I wanted to present an alternative to dominant, patriarchal interpretations of heroism. The professional options offered in *The Deserters* constitute a stark contrast to those typically available in AAA games. In high-budget commercial games, the most common player role is likely that of the hero-warrior (or some variation thereof), which has historically been associated with masculinity and physical aggression. By casting librarians and digital humanists as heroes, *The Deserters* puts a spin on the ableist idea of heroes and warriors as physically strong.

In addition, *The Deserters* seeks to subvert the stereotype of the spinster librarian. Popular culture has historically characterized librarians by qualities such as a “neat appearance, cordial manner, avoidance of alcohol, drugs, tobacco, gambling, profanity and vulgarity” and a deep, uninterrupted commitment to the job (Attebury). A recent example is Harry Potter’s Madam Irma Pince, who is grumpy, uptight, and deeply devoted to the profession (even though her spinster status is questionable given the rumors of her romantic involvement with caretaker Argus Filch) (Rowling). To a certain extent, the stereotype of the white old maid librarian has historical roots: white women entered the profession in the 1880s and made up 90% of American librarians in the 1930s. Institutions shaped and reinforced the librarian stereotype in the 1960s, when admission tests for library school admission and employment favored applicants who gave ‘feminine’ answers; questions included: “I want to be an important person in the community” - the ‘correct’ feminine answer was false - and “I am somewhat afraid of the dark” (true) (Pagowski and Rigby). Such institutionally sanctioned assumptions about

women and librarians are likely to have played into popular representations of librarians. The common alternative to the old maid stereotype is the sexy librarian stock character, which has likewise been around for a long time: Gotham City Public Library, for instance, is run by none other than the attractive Barbara Gordon, better known as Batgirl (Warner Bros. Entertainment Inc.). NBC's *Parks and Recreation* takes the sexy librarian stock character to humorous extremes with the role of the evil and sexually aggressive librarian Tammy Parker (NBC 2009). The two stereotypes – the spinster librarian and the sexy librarian – mirror the patriarchal binary of womanhood that casts women as either asexual or hypersexual; both are equally objectifying and have very little to do with the tasks of a library scientists.

Stereotypical representations are problematic because they reinforce simplistic interpretations of sex and gender, which pushes back against intersectional feminists' and LGBTQ+ activists' attempts to promote a more fluid understanding of identity markers. Moreover, they offer an outdated and inaccurate picture of the profession: librarians' duties do not exclusively revolve around shelving print books. Today, librarians work extensively with digital technologies, and much of their work is related to managing and interpreting information. *The Deserters* seeks to clear up these misinformed, narrow perspectives, and casts librarians and digital humanists as heroes of our time. John Hunter, Katherine Faull, and Diane Jakacki propose that digital humanists should “demonstrate to the world that ours is the proper place to frame discourses about identity, social justice, and even [...] debates about human rights vis-à-vis technology and the environment” (134). The representation of professions in *The Deserters* does just that. In

the end, it is up to the player of *The Deserters* to interpret their role and decide what they make of it; either way, it is meant to offer a new way of thinking about the kinds of people that work with records and documents such as those in *The Deserters*.

Aesthetic Choices

The appearance of *The Deserters* is dark, highly contrastive, stylized and largely monochromatic with only a few color highlights. This aesthetic sets the tone for the game experience, which is serious and dramatic, but occasionally humorous and ultimately hopeful. The black-and-white aesthetic was initially a side-effect of my background drawings for the game, which show each room in the house.



Figure 12 Story Drawing for The Deserters: Laura's Room

I drew them exclusively based on my memory of the house I grew up in, which in some rooms resulted in a mix of furniture and decorative items from different periods of my life. The representation of my childhood bedroom, for instance, is based off the way it looked around the year 2004, when I was sixteen years old (**FIGURE 12**). I chose this version of the room because it is the most vivid image I can conjure from my memory, and by far the most interesting version. Today, my mother uses the room as an office, and the fantasy gothic aesthetic which is shown in *The Deserters* is a matter of the past. The downstairs areas are largely still the same as they are today; a keen observer will note that some of the found photographs from the early 1990s in the game show the dining and living room, albeit with older furniture.

Partially, I drew the rooms because the process of creating each room in the game was much harder without a clear visualization. Since I had planned on ‘hiding’ the authentic documents in different places across the house, I needed a reference drawing to determine what objects could serve as possible hiding places. I started with a rough sketch of the rooms in pencil, which indicated the dimensions, perspective, and general position of items within the room. Following the lessons from my father, who was a constructional engineer and architect in his day, I then constructed the room with a single vanishing point (i.e. using a one-point perspective), which is the appropriate method for architectural drawings of rooms. It also is a powerful way of creating a sense of depth and setting interesting focal points within the drawing. I still use my father’s old drawing tools from the 1970s for tasks such as this one; I switch between eye measurement and proper measurement of lengths and angles, which a critical observer of the drawings

might notice. I initially planned on coloring the images, and I experimented with a variety of methods, from water color over acrylic to digital drawing. However, the images looked best in black and white, outlined with a black ultra-fine-point permanent marker, and shaded with a mix of cross-hatching and random lines. The use of black shading causes the rooms to look extremely dark; the presence/absence as well as the density of lines determines whether an object appears to be light or dark, large or small, and in or out of focus. There is both a high contrast and a blurriness to the images, which, as it so happens, is exactly how they appear in my memory.

On the black background of the Twine interface, the images have a powerful effect. Partially, I believe that the black-and-white aesthetic works so well with this game because our postmodern consciousness paints a romanticized version of the past in black and white; photography and film may be at fault. Cognitive science shows that people who were exposed to black-and-white television in their childhood tend to dream in black and white, while those of us who grew up with color television are more likely to dream in color (Murzyn 1228). Given that digital media rely heavily on color for meaning-making, black-and-white designs stand out as minimalist, but also laden with symbolism.

Red has been associated with communism and socialism and left-leaning parties in Europe still use red to represent themselves. However, fascist regimes have also used red to represent their symbols (the swastika in Nazism was often shown in red). The appearance of the color in symbols of power is unsurprising given its historical association with leadership: red fabric color was hard to come by in the middle ages,

which is why it was reserved for kings (missing citation). Moreover, cognitive science has shown that humans are indeed affected by colors emotionally, and red is the most powerful stimulant on the visible spectrum: one study finds that red increases the force and velocity of movement in humans (Eliot and Aarts 445), another indicates that exposure to the color before tests negatively affects our performance (Eliot et al. 154), and there is empirical evidence showing that athletes treated with red color therapy receive a quick energy boost (Azeemi and Raaza). Culturally, as the color of blood, red has taken on a range of connotations and meanings, including birth, life, womanhood and menstruation, death and violence, revenge, justice, truth or loyalty (in blood oaths), family, parenthood, sister- or brotherhood, and so forth. Red is further associated with love, passion, anger, danger, warning, and the element of fire. Taken together, this rich set of meanings makes red a powerful color for designers and artists, offering a multitude of possible interpretations depending on contexts. I chose red as a contrast to the otherwise black-and-white aesthetic because it creates a sense of dread and urgency while also hinting at the idea that the political – especially in the case of totalitarian regimes like Nazism or Stalinism – is always a presence in our personal lives, and can constitute a source of suffering, danger, and pain.

Transcribing the Journals

One of the most significant challenges was the inclusion of personal journal entries, institutional documents, and letters. In the early 20th century in Germany, documents were printed in old German script called *Sütterlin*; it is a thick, heavy typeset

that is nearly illegible to someone trained to read in today's comparatively unadorned fonts. I also had to decipher the chirographic writings of my grandmother, her relatives, and her teachers. I found that while Ilse's grammar and spelling are flawless, she was often writing on unstable surfaces and under time pressure; for instance, in a letter to her husband from the refugee camp in West Berlin, she writes:

“We sleep here in an overcrowded room with 20 beds. Children from both adjacent rooms have been hospitalized with scarlet fever...Please excuse my terrible handwriting. We are living on the lower half of a bunk bed on the third floor. Oh, if only we could leave right away!”

The above quote shows one of many examples in which Ilse describes living in cramped spaces and is writing under great distress. In this case, her handwriting is material evidence of the struggles she experienced as a refugee. While *The Deserters* primarily aims at an English-speaking audience – mainly for practical reasons, given the context of this dissertation – there is a visual quality to the German script, and it can be appreciated apart from its content. I am therefore including some scans of her handwriting in *The Deserters* for its value as evidence and testimony: it reveals not only Ilse's thoughts and emotions, but also is physical evidence of what she lived through. However, because these texts are challenging to decipher even for a fluent reader of German, I chose to include only samples, and primarily relied on typed transcripts instead.

The journal entries in *The Deserters* are all bilingual (I will later elaborate on why I chose to include both languages); whenever I did not include a scan of the original, I

attempted to transcribe the German text and its English translation as exactly as possible. In many cases, that involved mirroring changes such as crossed out and re-written section. I wanted to include these details because they are evidence of Ilse's writing process, and to leave them out would offer an incomplete picture of who she was. A good example is my grandmother's biographical journal, which she composed for her doctor during a stay at a clinic after a depressive episode. She begins by writing in a narrative voice using past tense:

I never knew my oldest brother Georg. He died at age 15 ½ after an appendectomy when I was only 6 months old. From an early age, I was close with my brother Rudolf, who was six years my senior, because my father passed away when I was only 3 ½ years old (from Ilse's journals, p. I)

Over the course of the pages her writing becomes hastier, and she switches to an abbreviated style, using dates, present tense, prepositional genitive constructions:

Sept. 48 birth of daughter [...] 1951 birth of son. My husband starts drinking. 1953 my husband becomes unemployed (adapted from Ilse's journals)

We can only speculate why Ilse switched styles: maybe she promised her doctor to finish the journal by a certain deadline, and she ran out of time; maybe the abbreviated style allowed her to emotionally distance herself from painful memories, such as the emergence of her husband's alcoholism; maybe her hands got tired. Whatever the reason, at some point, she went back to the text and adjusted the style of these later sections to match the narrative style of the earlier parts. The original is shown **FIGURE 13**.

5.) zurück. Vierteljahr im DZ.
 schaft. Dez. 42 ~~Halbzeit~~. Trotz großer wirtsch.
 Schwierigkeiten in ~~Spannungen~~ mit letzten
 Monaten folgen drei glückliche Jahre ^{bei} Sept. 48
~~dem neuen Staat zur Welt~~
~~geführt d. Familie~~. Mein Mann schreibt v.
 Eisenwarenkaufm. auf Lebensunterhalt. Am 1. März
~~nach~~ ^{eine} 1950 ~~Konsumverkaufsstelle~~. 1951 ~~geführt d.~~
~~Sohn~~ ^{gelobt} ~~Mein Mann~~ ^{für} ~~fängt an zu trinken~~.
~~verlor~~ ~~verlor~~ ~~er seine Arbeitsstelle~~
 1953 ~~verlor~~ ~~mein Mann~~ ~~arbeitslos~~. Ab Jan 54
 arbeitet in Konsum als Hilfskraft, später als
 Verkäuferin. Dez. 45 ~~führt~~ ^{führt} ~~mein Mann~~

Figure 13 Scan from Ilse's journal

While we may never know why Ilse made these edits, they are nonetheless meaningful in that they offer room for different interpretations. Rather than omit them and only include what I interpret to be the 'final' version of her journal, I chose to instead transcribe Ilse's edits, leaving their interpretation up to the player. I do acknowledge that my transcript of the edits, too, is an interpretation, but it is a less radical deviation from the original. For *The Deserters*, I chose a set of visual effects that I believe best mirror Ilse's handwriting: I used a cursive font, Brush Script MT, for the body text of Ilse's journals, as it bears a visual semblance to her handwriting and is also compatible with most browsers. I used the strikethrough function, which draws a line through text, for text sections which Ilse crossed out. Finally, I used superscript to represent text bits which Ilse had written on top of crossed out parts; superscript works well for this purpose because just like Ilse's handwritten equivalent, the script is small and positioned not on

the baseline, but higher than the remaining text. The resulting transcript is shown in **FIGURE 14**.

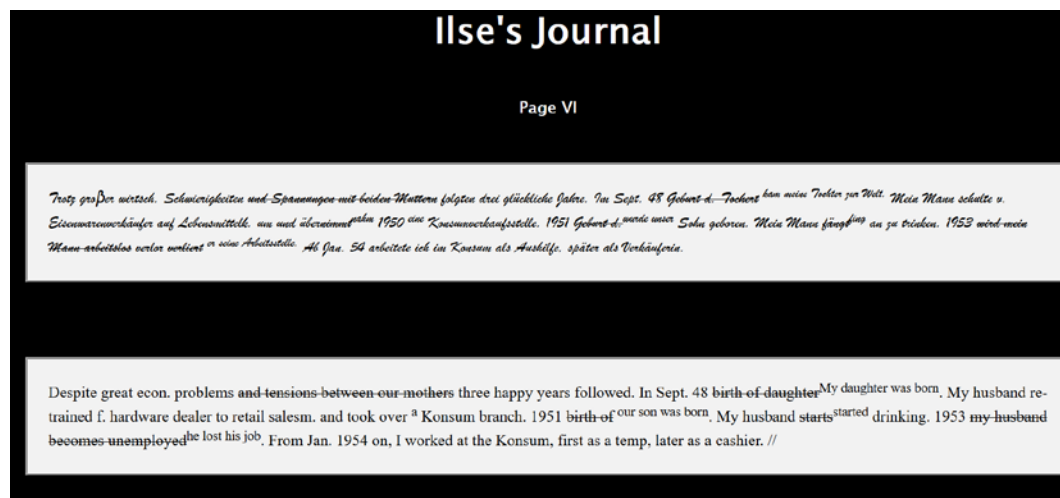


Figure 14 Screenshot of transcribed journal entry

A comparison between **FIGURE 13** and **FIGURE 14** shows how the digital version mirrors the original handwritten version; however, the purpose of the different font styles in the digital version is not clear without context. To avoid confusion, I included a section in the introduction to the game which explains how to interpret them.

Comparing the final transcript to the original, it is apparent that while I attempted to represent Ilse's edits, certain features, such as the uniqueness of each letter in human handwriting, cannot be accurately represented with the digital tools at hand. Software to digitize someone's handwriting exists, but for this project, it seems inadvisable to take advantage of such tools given that many readers might not be able to read cursive as it was taught in Germany almost a century ago. Another feature I omitted was the layering

of crossed out text and superscript in the original: Ilse often writes new text on top of, or in between, existing text; for reasons of legibility, I chose to present all text elements sequentially rather than atop of one another. Finally, Ilse used DIN-A5 lined paper to write her journal. I used a <div> box with an off-white background to mimic the color of the paper. I chose to stretch my digital ‘paper’ across the screen instead of mirroring the shape of the original journal to increase legibility and avoid having too much negative space. Despite the differences between original and transcribed digitized version, Ilse’s edits and the traces of her writing process are visible in the adaptation of her journal. Players therefore see a version of the journals which allows room for interpretation. I want to encourage open encounters with the text, in which players raise their own questions about the material: what is the effect of Ilse’s edits and what could have motivated her to make them? Rather than feed the audience answers to these questions, I hope to inspire curiosity and further inquiry.

Translating the Journals

In a multi-lingual critical making project like *The Deserters*, translation is a part of the reflection process. As a bilingual speaker who has taught German and English to diverse student bodies, I am aware that every translation is an interpretation. I think of language as a lens through which I see the world, and the world seen through a German lens looks different from the world seen through an English lens. But, as Stephen Mandiberg has argued, “translation tends toward invisibility,” and this tendency exists across contexts, whether we talk about translation in popular media or diplomatic settings

(54). The video game industry, Mandiberg further maintains, is “a celebrated and successful translation is one that can pass itself off as an original” (56). To address the issue, he proposes that we interpret translation as part of the interface layer. Like the interfaces of our highly black-boxed Smart technologies, translations are supposed to be transparent and invisible: they are not to ‘bother’ the user, but offer a smooth, comfortable experience. But that smoothness is a deception. Behind the sleek interface of Smart technologies, myriads of errors occur, and the processes of computation are all but smooth; likewise, behind an easy-to-read translation is a process of complex cross-cultural negotiation, and the result is often far removed from the original. On the other hand, interfaces and translations that acknowledge their own imperfection and inability to convey meaning are likely more challenging for audiences to navigate. However, by emphasizing rather than ignoring, complexity and cultural difference, such translations “can enable one player to see another player’s experience” (Mandiberg 64). With these principles in mind, I discuss two examples which illustrate my process of negotiating word choice and syntax in translating Ilse’s journal.

I wanted to preserve as much of Ilse’s voice in the English version as I possibly could. Syntax was the most challenging aspect to preserve. In German, due to strong verb inflections and changes in the conjugation of nouns, it is possible to structure sentences in myriads of ways without sacrificing grammatical correctness (clarity is a different story). Germans will begin a sentence with the information they want to emphasize. For instance, on her first journal page, Ilse writes:

“Als jüngstes Kind sehr alter Eltern (Vater 66 J., Mutter 42 J.) kam ich am 28.9.24 in dem [...] kleinen Dörfchen Rohrbach – 20 km von Leipzig entfernt – zur Welt.”

A literal translation is possible only to a certain extent:

“As the youngest child of very old parents (father 66y., mother 42y.), I was born [lit. “I came into the world”] 09/28/24 in the [...] tiny village Rohrbach – 20 km from Leipzig.

The structure of the first sentence suggests that Ilse was placing an emphasis on her unique situation as the late surprise child to her parents, who, at the time, were likely considered too old to have children. While in English, pulling this adverbial structure to the front of the sentence may seem a bit odd, it is grammatically possible. In my first translation, I felt the need to polish the sentence, so I imposed a syntax which is more common in English:

“I was born 09/28/24 as the youngest child of very old parents (father 66y., mother 42y.) in Rohrbach, a tiny village 20km from Leipzig.”

Placing the main clause and the birth date first gives the sentence a more English flavor, but at the same time, Ilse’s emphasis (and thus, her voice) is lost. Upon watching my first traversal video, where I heard myself read the sentence out loud, I realized that the loss of emphasis on the parents’ age for the sake of using conventional syntax is not worth the sacrifice in the case of *The Deserters*.

Electronic literature, as discussed in chapter two, seeks to open technological black boxes and complicate interfaces, and to disrupt simplistic and deceptive notions of

‘user-friendliness’ that suggest a sense of control to the user, while in reality the user never sees beyond the surface. In the same fashion, electronic literature should seek to complicate translation, and challenge the ideal of a smooth mediation. Therefore, I decided that instead of polishing Ilse’s journal in English and hiding my struggle in translating it, I would draw attention to the translated-ness of the English text. When the player first discovers the journal pages, they encounter the German version and a link text, “Translate.” Only upon clicking the translation button is the English text revealed. With this approach, *The Deserters* compels the player to acknowledge that the English text is a translation before they even see it. In fact, I make the translation a ‘bump’ in their quest for discovery: an English player who does not understand German is deprived of the text’s meaning at first and sees only lexical items they cannot recognize. It is my hope that at least to a certain extent, this feature builds an atmosphere of curiosity and anticipation. For the same reason, I included Ilse’s emphasis and pulled the adverbial phrase back to the beginning of the sentence, even if there is a certain awkwardness to such syntax in English. After all, the goal of my translation is to deliver Ilse’s voice – and in this particular case, the literal translation was the best option.

In other cases, a literal translation may not be an ideal choice. Consider the description of where Ilse was born, “in dem kleinen Dörfchen Rohrbach – 20km von Leipzig entfernt.” The literal translation would be: “in the tiny village Rohrbach - 20km from Leipzig.” Note that Ilse does not use the noun “Dorf” for village, but a diminutive form, “Dörfchen,” which is impossible to translate, but is commonly used for small and picturesque rural villages. She also adds the adjective “kleinen,” “small,” which might be

considered redundant – but it adds to the picturesque image she’s conjuring of Rohrbach. “The tiny village” does not have the same effect in English. Germans love their definite articles – der, die, das – and like to put them everywhere. In English, the definite article “the” in combination with a noun and a proper noun, “*the* village Rohrbach,” creates an emphasis that suggests there is only *one* tiny village name Rohrbach, or at least only one that matters – it’s *the* tiny village Rohrbach, what else would it be? Well, how about one of the other 31 Rohrbachs in Germany? Rohrbach means pipe creek, and there are plenty of those in rural Germany. For this reason, I chose the expression “[...] Rohrbach, a tiny village 20 km from Leipzig.” The adjective clause helps transfer the image of the picturesque village which Ilse is describing in the German original; while the sentence structure has been altered in the translation, the version which is further removed from the German original works much better on a semantic level.

Presenting the Photographs

Among the greater challenges of the project was the presentation of photographs. The purpose of photographs in *The Deserters* is twofold: on the one hand, the images add visual evidence to the story. On the other hand, they add an aesthetic dimension. Additionally, the photographs constitute an important part of the game play experience, serving as objects the player finds over the course of the game. The desired behavior of the Twine program, then, is to show a new photograph only *after* the player has located it by clicking through a series of links. Since players are collecting the photographs, they need a storage place where they can access the images.

Early in the making process, I came up with a storage location for the information players retrieve: the *family files*. The choice of the label *files* hints at the historical context of *The Deserters*. The Eastern German government, while long gone, is internationally known for its advanced, yet repressive intelligence system and broad-scale surveillance of the Eastern German people, notably executed by the *Ministerium für Staatssicherheit* (Ministry for State Security), better known as *Stasi*. In the early 1990s, after the fall of the German Democratic Republic, the German government opened the information gathered by the Stasi to the public. The public debate which surrounded this decision drew attention to the myriad of *Stasi Files*, which contained private information about millions of GDR citizens. The label *family files* is reminiscent of the term *Stasi Files*. However, this choice is by no means an attempt to condone or glorify the actions of the Stasi; rather, just like the game's title, *The Deserters*, it is meant as a hint at the repressive political circumstances under which the story takes place. The collection of data about citizens in the GDR directly affected the lives of millions, my family included. As players of *The Deserters* learn about the ways in which the Stasi's panoptic system affected people's lives, they might be inspired to reflect about contemporary invasions of privacy, large scale mining of personal data, and the possible political consequences.

Having decided where the photographs will be stored in the game, I needed to consider two key questions, each of which comes with a set of subordinate questions:

- *How will the photographs be presented?* How much space of the screen should they take up? Should they be framed? Will they be surrounded by text? What information will the player need and want to see?

- *How will the players access the photographs once they are found?* How will they progress from viewing one photograph towards viewing the next? Should the photographs be sorted according to the order in which the player finds them, or should they be organized chronologically?

I wanted the photographs to be meaningful to the story; therefore, all photographs come with one or more pieces of text. Many of the original photographs had blurry pencil inscriptions on their backsides with bits and pieces of information: I emulate these notes in the game by adding a virtual backside to each image which the reader-player can choose to examine. In the game, each photograph has a title containing information about the image, such as the people featured in it, the year and place it was taken, and the occasion (if the information was available). The image title, which is saved in a variable called \$imagetext, is hidden when the user first encounters the photograph. Upon initial viewing, the text above the photograph reads: "You found a photograph!" The title is only revealed after the player clicks the link "Examine backside." When the player revisits the photograph later, the text at the top of the page is replaced with the title. The backside inscriptions underscore the aspect of discovery in the game and offer a logical way of delivering the necessary information.

In addition to the image titles, I paired up photographs with 'journal pages', meaning a short extract from either Ilse's or Kristina's journals. The journal pages provide additional context and thus embed the image within the overall story. The journal and image passages are linked permanently, so that players can easily access the text that contextualizes an image and vice versa. Images and journal sections were matched up

based on their content; Ilse's journal was composed in 1986, but she provides specific dates for all past events mentioned in the journal. For instance, an entry on Ilse's first marriage is linked to a picture of her as a young bride (**FIGURE 15**).



Figure 15 Photograph of Ilse after her first wedding

Because I wanted the photographs to be featured prominently, the game never displays more than one at a time, and journal entries are viewed on a separate page; in photograph passages, each image is centered, taking up about a third of the screen. This ensures that the images can be viewed together with their title. Regarding aesthetics, I decided to keep the presentation simple: most images are monochrome, either black-and-white or sepia, which matches the game's overall color scheme (see **AESTHETIC CHOICES**).

Players can access the photographs they have found in the game by accessing the family files and entering the 'photo gallery,' which they can click through to view the images one by one. At first, I coded the gallery in such a way that players would see the images in the order in which they found them. However, I realized that this approach made it challenging to understand the sequence of events in the story. The game itself is non-linear, so that players may come across photographs and journal entries in a random order. However, because the story is based on real events, there is, of course, a definite chronology to it. The sequence of events matters because the story connects my family's personal experience with historical events which occurred in Germany at the time. If a player who is not familiar with that history encounters the images in a random order, the story might not make sense. For example, the Berlin Wall was not built until 1961, but Ilse fled the East with her children in 1956. This means that while their escape was dangerous, the physical barrier did not yet exist, which made it possible for a mother with two children to leave the country via Berlin. Chronology, in other words, plays a role in the story's logic. Keeping the photographs in the random order in which they were found makes it challenging for players to obtain an overview of that chronology, and the experience might quickly get frustrating. What if, however, discovering the sequence of events becomes part of the game? I decided to code the photo gallery in such a way that the found photographs appear in chronological order instead of the order in which they were found. This means that while the player will note temporal gaps, filling these gaps is part of the game's goal.

Below, in **FIGURE 16**, we can see what the photo gallery looked like in its final version. The text above the photo shows the translated image title. Underneath the photo, I implemented two links: the arrow pointing to the left takes the reader-player *back* in time to an earlier photo, while the arrow pointing to the right leads *forward* in time to a later photo. The words “photo gallery” in between ensure that the reader-player understands the purpose of the links.

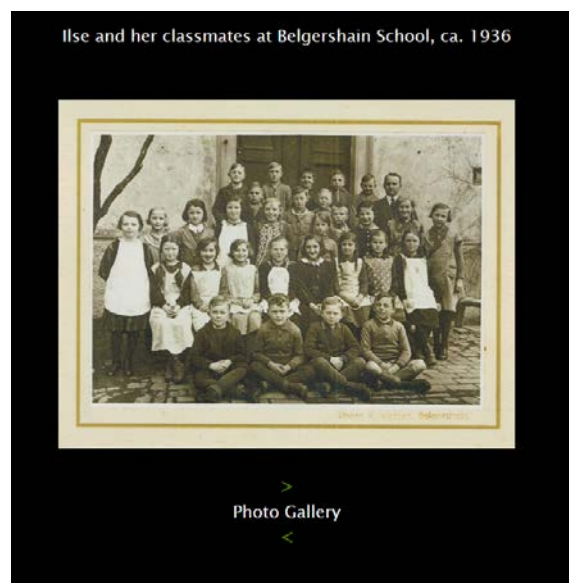


Figure 16 Photo Gallery Layout

The left/right designation relies on the assumption that time is linear, and that in graphic representations, it moves ‘from left to right.’ In the natural sciences, specifically in Newtonian physics, time is typically represented in this fashion; I acknowledge that it is a biased representation rooted in Western Enlightenment philosophy, and in addition, it is neither scientifically accurate (modern physics has shown time to be much more

complex) nor politically inclusive (not all cultures treat time as linear; in Eastern philosophy, for instance, time is understood in a cyclic fashion). Unfortunately, however, representations of time can never be more than rough models of the way we interpret it, and the Western model lends itself to the task at hand because of its relative simplicity (again, I may be speaking with a Western bias). I have nevertheless made the conscious choice of using the linear model of time here, for one because the anticipated audience is likely familiar with this kind of representation, and because, as I explained earlier in this section, the linear sequence of events is key to understand the story in its historical context.

Coding the Photo Gallery

Coding the Photo Gallery was my greatest technical challenge in the project. If all photos were available from the beginning, it would be relatively easy to code the gallery in such a manner that players can click their way from one photograph to the next. Since every photograph is assigned to a passage in Twine, all I would need to do is link the individual passages to each other. However, in *The Deserters*, as explained above, players find photographs in a random order, while the gallery displays them in chronological order. I will describe the issue I encountered with an example.

Say the player has found photograph number one, the earliest photo we were able to procure: it is a photo showing Ilse at about age twelve, in 1936. After that, the player finds photograph number four, which shows Ilse at her first wedding. Photos two and three are not yet in the reader-player's collection; that means when the player accesses

the photo gallery, photo no. 1 should be followed by photo no. 4. However, as soon as the reader-player acquires photo no. 3, the link from photo no. 1 should lead to no. 3 instead, and the link from no. 3 should lead to no. 4. I wanted this mechanism to work in both directions, allowing the player to view through the images both forward and backward in time.

Here, I will present the two solutions I came up with; one is simple, and the other one took some experimentation and deeper understanding of Harlowe 2 code. On the interface, the result of the two solutions I present here look the same, which is why the difference is not immediately apparent. However, on the level of code, the second solution is shorter, more elegant, and much easier to implement for many photo files.

The simple solution to this problem is hardly elegant, but it works: I included a long sequence of conditional statements in every single photo passage. First, I created an array called \$Photos which contains the names of every photograph the player has already found. The code shown in **FIGURE 17** tells Twine the following: If the player has already found photo no. 4, make a link to photo no. 4. If photo no. 4 has not been found yet, check and see if the player has found photo no. 3; if that is the case, make a link to that photo, and so forth. After the link pointing to the left (<), the text “Photo Gallery” is displayed, followed by the link pointing to the right (>). The latter follows the same logic

as the first section of code does; it tells Twine: check and see if image no. 6 is available; if it is, make a link to it. If no. 6 is not available, check if no. 7 is available, and so forth.

```
{(if: $Photos contains "four")[$center[(link-goto: "<", "imgIV")]]  
(else-if: $Photos contains "three")[$center[(link-goto: "<", "imgIII")]]  
(else-if: $Photos contains "two")[$center[(link-goto: "<", "imgII")]]  
(else-if: $Photos contains "one")[$center[(link-goto: "<", "imgI")]]  
$center[Photo Gallery]  
(if: $Photos contains "six")[$center[(link-goto: ">", "imgVI")]]  
(else-if: $Photos contains "seven")[$center[(link-goto: ">", "imgVII")]]  
(else-if: $Photos contains "eight")[$center[(link-goto: ">", "imgVIII")]]  
}
```

Figure 17 Photo Gallery passage code - simple version

Again, on the interface, this messy piece of code is invisible, and since it works, there may not be an urgent need for a more elegant solution from an audience standpoint. However, from an authoring standpoint, implementing new photo passages into this system is work intensive and requires constant changes to all photo passages. Every photo passage must have a link to all photo passages before and after it, because we cannot anticipate the order in which a player will find the photographs. Further, because Twine is Open Source, users can view, and thus also interpret, the code; it is thus an integral part of the critical making project and must undergo the same level of critical scrutiny and reflection as everything else. These reasons motivated me to develop the code explained below.

Every element in the game's program can (in some cases, must) be given a name which is used to reference the element in the code: images, passages, functions, or sections of text all have labels the author can use to "call" them. When I coded the first

version of the photo gallery code, I noticed that there was a correspondence between the labels used for the images and the labels which refer to the passages that *contain* the image. The code in **FIGURE 17** essentially says: “if you have the photo called *four*, go to the passage called *img4*; if you don’t have photo *four*, but you have photo *three*, go to the passage *img 3...*,” and so forth. I realized that to simplify the code, I needed to do two things: One, I had to use actual *numbers* to refer to the photos. If the photo was simply labelled *4*, I could tell the code: check the array \$Photos for any numbers smaller than four. Secondly, I wanted to use the same label for both image and passage, so that I could simply tell the code: “Go to 4 if it’s available.”

The first modification – using numbers to label the photographs – is easily accomplished. However, using *the same number* to refer to the passage containing the photo is challenging, because by default, all passage names are *strings*. Strings are a type of data that is distinct from numbers. Most machines –the Twine software among them - cannot interpret human language; for the machine, a string is simply a series of signs with no inherent meaning, such as a word or a sentence. It is possible for the machine to interpret a number *as a string*; for example, 5 can both be a label for the mathematical concept of the number 5, or it can be a random sign in a series of other signs with no meaning at all. In my program, I used numbers to find the available photographs, which allowed me to impose a rising order on the sequence of photographs, from the first to the last photo. Once the program finds the next available photo, I used the (text:) macro to

convert the photo's name (a number) into a string, which represents the name of the passage containing the photo.

```
(set: $imagename to 5)
*image here*
(display: "funct1")
(display: "photogallery")
(display: "funct2")
```

Figure 19 Improved Photo Gallery code - Photo Passage

```
$center[(if: $Photos contains any of (find: _a where _a >
$imagename,...$Photos))[(set: $a to 1st of(find: _a where _a > $imagename,
...$Photos))[(text: $a)](hide|(link-goto: ">", "$a"))]]
```

Figure 18 Improved Photo Gallery Code: funct1

The resulting bits of code are shown in **FIGURE 19**, **FIGURE 20**, and **FIGURE 18**. The code in **FIGURE 19** must be pasted into every passage containing a photo. Note that there are three uses of the (display:) macro. In Harlowe 2, it is not possible to simply call user-created functions; however, it is easy to emulate the mechanism of making and accessing custom functions by simply placing the function in another passage and then ‘displaying’ it (i.e. running it) where it is needed. The code in **FIGURE 19** runs three such functions: “funct1,” “photogallery,” and “funct2.” **FIGURE 18** shows a passage named “funct1.” It creates the left-pointing link and is structurally equivalent to the passage

labelled “funct2,” which creates the right-pointing link. **FIGURE 20** shows the content of a passage named “photoinit,” which is run at the beginning of every passage with the tag ‘photo.’ The third passage referenced in **FIGURE 19**, “photogallery,” simply formats and styles the words *Photo Gallery* and will not be discussed at length. Below, I will explain what the pieces of code shown in the three figures do and why I implemented them the way I did.

```
(set: $currentpassage to (passage:)'s name)

(if: (count: (history:), $currentpassage) is 0)
  [(set: $Photos to it + (a:$imagename))]
```

Figure 20 Improved Photo Gallery code - photoinit

The code in **FIGURE 19** sets one variable - \$imagename – to a number which reflects the position of the photograph in the chronology (in this case, photo no. 5). Note that both the variable \$imagename *and* the Twine passage which contains it are called “5.” Finally, there is a third entity which is also called “5” – the variable \$currentpassage is set to reflect the name of the passage in question in **FIGURE 20**. The (count: (history:)) macro in **FIGURE 20** checks whether the player has already visited the current passage. If the passage has not been visited (i.e. if the count is 0), the function adds the name of the photo (which coincides with the current passage’s name) to an array called \$Photos. In other words, every time the player finds a new photo, its name is added to the array

\$Photos. The (count:(history:)) part of the function ensures that each photo is only added once, instead of every time the player looks at it.

The function shown in **FIGURE 18** searches the array \$Photos and finds any values within it that are smaller than the variable \$imasename (in our example, the number 5). The (find:) macro returns an array with all those values. For example, if the player has previously found photos no. 2 and 3, but has yet to find no. 1 and no. 4, the (find:) macro returns the array (a:3,2). The function then tells Twine to take the first value of that newly produced array, because it is the value closest to our current photo, no. 5, and sets it to a new variable named \$a. In our example, \$a would be 3, because it is closer to 5 than 2. Now, we must create a link to the passage containing the photo equivalent to \$a, in this case, photo no. 3 – and conveniently, that passage is also labelled 3. However, \$a is a number, while the passage name “3” is a string; that means we need to convert \$a into a string. Unfortunately, the only Harlowe 2 macro which accomplishes this conversion is the (text:) macro – and this macro does not just convert numbers to strings, but also prints that number on the screen every time it is run. I circumvented this issue with a little ‘cheat’ by simply placing the (text:) into a hidden hook, so the reader-player cannot see it. Now that \$a is a string, we can reference it as a passage name in the link-goto macro, and we have created our link.

The advantage of this approach is that now, the text which is placed into the individual photo passages in Twine is not only much shorter, but also ‘standardized’ in the sense that I can use the same lines of code for each photo – I only have to change one number (or, to be accurate, a number and a string which contains the number). My own

insight from creating this piece of code is that most challenges in coding (at least in Harlowe 2) can be boiled down to figuring out where to use which data type (i.e. array, string, number etc.), and how to convert one into the other. These aspects may not be noted by a player who primarily focuses on the interface, but from a coding perspective, the improved code for the photo gallery offers a much more accessible and stable architecture. Since the source code for *The Deserters* is open, players who choose to view and remediate it will prefer the shorter, more elegant code over the lengthy and bulky initial version.

Chapter Review

In this chapter, I discussed the process of making *The Deserters* in detail, including the acquisition of records, the organization of materials, storyboarding, ethical choices, and choices pertaining to the representation of the content, including narrative, aesthetic, linguistic, and technical choices. However, it is important to note that what I discussed in each section covered merely a few examples of the overall creation process; I did not measure how much time it took to create the game, but its development took over a year. The examples I chose to discuss here in my mind represent the making process of *The Deserters* as best as possible within the given parameters of a three-semester dissertation project. They illustrate the way in which I made decisions while taking into account the affordances and limitations of Twine as a medium, but also thought processes which went into creating a work within a framework of activist critical

making. Looking back to the individual findings in the different sections of this chapter, there is a golden thread which runs through all of them: the central role of the player.

To produce an activist game which is ethical, thought-provoking, and inspires compassion, I, as the author, frequently had to imagine myself on the receiving end of the game and think through the possible ways in which players might respond to the input I provide. The challenge is, of course, that it is ultimately impossible to know how others will respond to the text I produce; therefore, to ensure that my choices are not based in stereotypes, I needed to try and think outside of the boundaries of my own mind and body. Activism, as we have seen in chapter one, is not about imposing our own world view on others, but rather about dialogue between equal partners. We have also seen that activist scholars who wish to open a dialogue should consider taking the first risk and making themselves vulnerable: such a step ensures that we approach others as humans, not just as scholars. My narrative, aesthetic, and technical decisions were informed by this paradigm. The translation of the journals is a strong example. Translation challenged me to imagine what the game would look like to someone who does not read German. How could I convey the unique features of the German original text in a translation? I decided to make the translation obvious and use the text's translated-ness as a stepping stone which draws the player's attention to the difficulty of conveying meaning through the limited affordances of language. Twine, with its emphasis on using links to hide and reveal sections of text, was the ideal venue to accomplish such a translation. Rather than impose my assumptions about the players' possible reactions to the game, Twine allowed me to extend an invitation to the player to co-construct meaning together.

CHAPTER V: LESSONS FROM THE DESERTERS

Chapter Overview

In the preface to this dissertation, I outlined what motivated me to start this project: my fury and sense of helplessness when some of my students were affected by recent changes to US immigration policy under the Trump administration. I wanted to create something that inspired audiences to feel compassion, rather than fear and anger, towards immigrants in the US. Digging deep into my own background, I came up with the idea of exploring my family's refugee experience in a way that allowed others to see the way in which political and economic systems can affect people's personal lives, and to empathize with the protagonists by retracing their experience. What started with a spontaneous idea became an extensive long-term project. I explored theories, methods, and tools from the realm of digital humanities and beyond, with the intent of creating an activist game that was ethical, critical, and persuasive.

Once the idea to create *The Deserters* as an academic project had manifested in my mind, I was faced with an important question: how can scholars engage in creative activist projects that are ethical and theoretically situated? Of course, there are many possible ways for scholars to engage in activism, and it is not the goal of this dissertation to provide a comprehensive answer. To claim that I have such an answer would ignore and discount all the creative ideas and efforts by other activist scholars. Rather, in making *The Deserters*, I present one way of engaging in activist scholarly projects – however, the different aspects and facets of this project, including all the theories, methods, and tools I relied upon, can be drawn upon and remixed in new ways by others in the future. In the

spirit of transparency and Open Source ethics, I do, in fact, hope that this project sparks new ideas for other activist efforts.

In this final chapter, I bring together the different theoretical and methodological elements I have worked with throughout the process and evaluate the project's outcome in light of the goals I set out to achieve. Because this dissertation revolves around the creation process from an authorial perspective, the results of this study lie in the experiential knowledge which I recorded, analyzed, and reflected upon in this work. The value of this project to other scholars in the digital humanities lies in the insight we can generate from that experience. I therefore present the results of this project in a set of seven best practices for activist critical making. It is my hope that scholars interested in creating similar projects can draw inspiration and insight from my work, or expand upon the concept of activist critical making in future research projects.

Key Concepts Revisited

Much of my own approach to activist critical making built upon the cultural context and technological affordances of the interactive fiction platform Twine. I chose this venue primarily for its accessibility, transparency, and its albeit brief, but impactful history as a game-making platform for 'outsiders' to the AAA game industry. From my engagement with the platform throughout this project, I hoped to answer the following questions: *How can makers engage the poetics of Twine to build critical, thought-provoking, activist games? What are the poetics of Twine, i.e. the poetic and aesthetic affordances of Twine that allow designers to make meaning? How do Twine's poetics*

inform the maker's choices, in terms of game design, narrative, and aesthetics? How can makers implement political and ethical values in Twine games? The second part of this subchapter will be dedicated to a discussion of these questions. First, however, I will set up a proper context by recapitulating my theoretical and methodological framework for activist critical making.

The theoretical considerations for this dissertation are rooted in critical theory, engaged pedagogy, and critical making. Critical theory is important in this context because it set up the foundation for activist or politically oriented scholarship in the humanities. The Frankfurt School scholars wanted their research to serve the people and break down oppressive power structures (Horkheimer 242). Certainly, from a 21st century perspective, there are aspects of critical theory which are problematic; after all, Adorno, Horkheimer, Marcuse and their contemporaries were part of an intellectual elite to which women, people of color, or people with disabilities simply did not have access. However, as I argued in chapter one, their insight that oppression is rooted in the economic division between poverty and wealth continues to hold true on a global scale today. Nevertheless, to build an ethical framework for an activist project today, we should strive for more inclusivity and avoid intellectual elitism.

When scholars reach out to support marginalized populations for activist projects, an attitude of intellectual elitism must be avoided. Critical or engaged pedagogy offers a helpful approach to activism in this context. Activist scholar bell hooks argues that through vulnerability, teachers can start to break down the power gap between themselves and their student (21). The corresponding power relationship that needs to be

levelled in the case of activist scholarship is that between researcher and subject, or, specifically in the context of this dissertation, between author and audience. According to hooks, sharing personal or confessional narratives can help open a dialogue across systemic barriers; it is important that the individual who is in power (i.e. the teacher, author, or scholar) takes the first risk (21). Creating and sharing *The Deserters* with others is my interpretation of taking that first risk on several levels. Academically, I am taking a risk by submitting a highly unusual and creative dissertation project, which traditionalists might view as “not scholarly enough.” Personally, I am taking a risk by sharing some of my family’s more painful experiences. In both cases, I hope to inspire others to do the same, and step outside their comfort zone to participate in the dialogue I started.

Given this project’s heavy reliance on material objects and technological tools, I chose to look at this dissertation as a work of critical making, rather than exclusively focus on its status as a work of interactive fiction. Critical making forms the methodological framework for this project; I understand it as theory-driven, reflective, yet creative engagement with physical and conceptual material. Making comes with its own historical baggage, as we still tend to think of the “maker” as a socially advantaged white man (Hunter et al.). *Critical making* seeks to remediate these problems by emphasizing engagement with theory and reflection on values, ethics, and social issues (Ratto and Boler). While many critical makers view their work as political, I chose to add an activist lens to root the project firmly within a context of social justice, and to address some of the historical baggage which exists within maker culture. Together, the

components of critical theory, engaged pedagogy, and critical making form the framework that I call activist critical making.

For *The Deserters*, I wanted to incorporate many material and conceptual elements in one story. It was clear to me from the beginning that such a story is best told in the form of hypertext. Hypertext uses links to connect different textual elements. It can be read in non-sequential order and can branch out into different story paths. Selecting a hypertext approach to storytelling allowed a much deeper engagement with text and materials than a ‘flat’ print text would have. While hypertext may not be as inherently democratic as many of its advocates initially thought, it is, like all electronic literature, multilayered and complex. Meaning in electronic texts emerges from the interplay between hardware, platform, code, interface, content, and reception. However, this also means that my creation of *The Deserters* needed to take different levels of meaning-making into account. A core element of the project was the choice of the platform, Twine.

Among works of electronic literature, Twine games stand out as shrill, rebellious, yet simple. I have argued that Twine games are like the Punk Rock of electronic literature, because Twine authors reject traditional notions of artistic excellence and consumerism while embracing a zine-inspired DIY aesthetic. The Twine community is characterized by diversity; in stark contrast to the demographics of the AAA game industry, Twine game makers are often members of marginalized communities. The platform’s accessibility and ease of use contributes to its welcoming atmosphere.

The Open Source status of Twine ensures transparency and places an emphasis on an ethics of sharing and community in coding. However, the ethical framework upon which Open Source culture was built is problematic. For one, hacker culture is largely male-dominated and is steeped in libertarian ideals. While working out of mere passion on a flexible schedule is certainly appealing to most creative minds, hacker culture has shown little awareness or compassion towards people who simply cannot afford to spend significant time and effort on projects that are typically unpaid. Open Source culture has historically excluded marginalized populations from its circles, not necessarily with intention, but by lack of self-awareness.

Many Open Source software products require a high level of technical literacy on the user's part; Twine, however, takes a different approach. Its unique structure, interface, and community ease the entry for people with no programming experience. Twine's language borrows from literary metaphors and incorporates syntactic structures that are closer to the English language compared with most programming languages. Therefore, Twine offers an excellent space for more inclusive, activist Open Source work.

Having revisited our framework for activist critical making, we can now turn towards the lessons learned during the making process. Early on in this dissertation, in my set of research questions, I asked how makers can engage the poetics of Twine to make critical, activist, thought-provoking games. I further specified this question by asking about the poetic and aesthetic affordances of Twine and the implementation of political and ethical values. In the following paragraphs, I provide answers to these

questions by synthesizing my reflection of the making process, focusing specifically on *how* I used Twine's features to create *The Deserters*. In giving a reflective, holistic response to my research questions, I emphasize that the answers to these questions are not objective or quantifiable 'truths,' but insights obtained from experience and reflection.

We have seen that Twine games have distinct aesthetic and structural characteristics which set them apart from other digital games and works of electronic literature. I have argued in chapter two that Twine mirrors Punk Rock in its rejection of consumerism and traditional notions of artistic excellence, as well as its emphasis on political or taboo subject matter. It may seem that *The Deserters*, with its focus on archival materials and serious subject matter, has little to do with Punk Rock at first sight. It was, however, influenced by the poetics of "Twine Punk" at every step of the way, and I do believe that this influence is noticeable during actual playthrough – writing or reading about a game as part of this dissertation just does not quite convey the effect, because I am required to follow academic genre conventions which could not be further removed from Punk. However, if we revisit the three core characteristics of Twine Punk one by one, it will become apparent that they have shaped much of the decision making during the creation process.

Twine's rejection of the profit-oriented AAA game industry is expressed in its status as a free Open Source product, as well as in its minimalist aesthetic and focus on text and simple design over costly and complicated special effects. Given its activist nature, profit was of course never the goal of *The Deserters*. But I would argue that the

critique of consumerism and profit-orientation in the game goes beyond that. For one, much reflection during the making process went into the role of Twine's Open Source status; when I coded the game, I kept in mind that the audience would be able to access and read the source code. I therefore chose clear, descriptive labels for different elements and worked towards creating code that others could modify: the revised code for the photo gallery, for instance, can be adapted for other purposes, and the images can be added or replaced with relative ease (I am sure there are more expert ways of coding these functions, but I did my best).

In terms of aesthetics and style, I kept the design simple, incorporating only text and static images. In working with an intense color scheme of red, black, and white, I hoped to create a sense of suspense and tension, while also hinting at the political nature of the story. The overall dark mood of *The Deserters* is occasionally broken up by small humorous elements and popular culture references in the images or the text. While the structure of the game feels quite clear and organized when compared to Punk Rock, the high contrast and extensive use of bright red is also a nod towards Punk album cover aesthetics. I included one reference which only an attentive player may notice: in the living room, there is a pump organ with a book on top. When the player enters the room, the book is open on a random page, different for every visit to the living room. The book contains the chords for different political protest songs; some are rock songs, some Punk Rock, and many of them reference the historical events mentioned in the inner plot, such as the Cold War. Again, the hint is quite subtle (I chose a pale purple font which is barely distinguishable from the white font of the remaining text), but it is integrated within the

frame story of the game and the setting, and thereby contributes to setting the tone and theme of the overall narrative.

On the level of content, part of what I hope to expose with *The Deserters* is the narrative of easy success under capitalism: my grandfather left the East thinking that he could easily start over and earn money in the West. He convinced my grandmother to follow him; in the end, their decision had a positive impact on their family in the sense that it did open new opportunities for their children and grandchildren. However, their lives in the communist part of Germany – contrary to popular American belief – were quite comfortable up to the point when my grandfather, suffering from PTSD, lost his job and pawned all their property and possessions for alcohol. In the West, the family struggled with crippling poverty for decades, despite my grandmother's and her children's hard work. The dream that many East Germans dreamt about the West – that it was a place where hard work was generously rewarded – is a lie that bears parallels to the American Dream.

What I just described is, of course, my interpretation of events, and rather than impose that interpretation on players, I tried to create conditions within the game that would allow them to arrive at the same conclusion. What I enjoy about other Twine games is the subtleness of their critique. Twine games use much text, so it is tempting for activist authors to become preachy and tell instead of show. Twine games such as Quinn and Lindsey's *Depression Quest* or Anna Anthropy's works express critique through mood and atmosphere, by letting the player be part of a scene. I attempted to achieve this effect by keeping the frame story simple, relying on atmospheric and sensual description,

while letting the inner story unfold through the documents and photographs. If the player truly pays attention to that content, they will intimately get to know the people who composed these documents and begin to understand their perspective and the circumstances of their lives. While there is no guarantee that a player will arrive at the same critique of capitalism that I had in mind when I created *The Deserters*, a player who takes the time to study the objects in the game might come to a similar conclusion.

Having reviewed the ways in which Twine's poetics have shaped the making of *The Deserters*, I will now turn to some of the practical implications of this project. Much of the value of this work lies in the lessons I learned throughout the making and reflection processes. Here, I discuss these lessons in the form of seven best practices, in hopes that other scholars interested in activist critical making will find them helpful.

Best Practices for Activist Critical Making

Examine your own motivations

Activist scholars need to carefully self-reflect about the motivations for their activist work. In chapter one, we have seen that the term activism is problematic, because it centers on the individual activist and has propelled the narrative of the "righteous few" who purport that they are uniquely positioned to save the world (Schmucker). Self-righteousness and wanting to present oneself as the hero are unlikely to lead to successful activist work. Ethical activist work arises from genuine care about other people. We therefore need to ask ourselves who benefits from our work. Given that this project took shape in the context of a dissertation, I did have some moral concerns: obtaining the

degree is part of my motivation; does that make me the primary beneficiary of the project? Do I need to sacrifice aspects of my activism to meet disciplinary standards and rules? To a certain extent, that may be case with all activist scholarship: in research contexts, we do spend much time comparing definitions, theories, and frameworks to arrive at just the right one – time which, it might be argued, could be spent with the communities we are trying to support. However, the standards of academic rigor we set for our work ensure accuracy of information, ethical conduct, and accountability; in the age of fake news, it is ever more important that we emphasize these qualities. If I had defined my goals only in activist terms, leaving out the careful considerations of scholarly work, I would likely not have considered each of my design choices as carefully as I did. I also would not have examined my own motivations as thoroughly. The (self-)awareness that results from such careful considerations is key in creating an ethical activist project: failing to reflect our own motivations and, by extension our own role within the creation of the project, can result in the kind of self-congratulatory, elitist stance towards activism that alienates readers and players. In activism, our motivation should drive us to empower and encourage others, not to present ourselves in a favorable light as the generous benefactors of the marginalized.

I explained in the preface that I was initially motivated by a genuine desire to support my students who were affected by unjust immigration laws. To single-handedly initiate the changes needed to create better laws is impossible, and it would not make for a realistic and achievable activist goal. What we can change – I tried to illustrate this in chapter one by bringing up the example of the #meToo movement – is the discourse

about immigration laws. But again, changing a discourse is not exactly a solo project: the best that an individual can do is to open a dialogue and create the parameters for that conversation in such a way that others feel welcome and invited to join. A question that arises after such considerations would be the mode of distribution: an activist project which aims at initiating discursive change needs to be received by an audience, ideally a large one. The reader may have noticed that distribution of the project was not a focal point in this dissertation. This is because I set the focus on the planning, designing, and making of *The Deserters* to model and theorize that process. It is my hope that other scholars will find the theoretical and experiential knowledge I generated in this dissertation a useful and inspiring starting point for their own projects. That being said, once the dissertation has been completed, I will continue to work on *The Deserters*, and a likely future research project will start out with the question of the best possible way of distributing this work.

Represent Ethically

Something that was frequently on my mind during the making process was the question: what would Ilse think of this? How would she feel about being represented as she is in *The Deserters*? Does the project truly convey her perspective, her struggle, and the strength it took to carry our family through all of this? The idea that she will never see the project, and that I will never truly know what she thinks of it, has been somewhat of an emotional burden throughout.

At the same time, I believe that the level of doubt I experienced drove me to try my hardest to do her justice. My initial idea, as I mentioned in the previous chapter, was to rely on fictionalization and have the player take on Ilse's role. It seemed like the most powerful way of encouraging others to feel compassion with her and re-live her experience as a refugee. Moreover, it is a common approach in Twine: *Depression Quest* works according to this principle, and so does *Golden Threads*. Previous research on Twine shows that the ability to make decisions through the lens of another, and to also experience the limitations of such decisions, is a powerful way of encouraging players to empathize (Salter, Friedhoff, Harvey). However, *Depression Quest* relies on fictional characters, which eliminates the ethical conflict of representing someone else's perspective; *Golden Threads* is based on historical figures, but because the authors chose to emphasize historical accuracy and exclude any fictionalization, there is no insight into the emotional world of the protagonist, and the game relies largely on summary and description. Luckily, I had an abundance of material to work with, and the writing of both Ilse and Kristina was insightful and moving; therefore, I could rely on the material to let the two characters speak for themselves.

The challenge in making *The Deserters* was to strike a balance between historical accuracy and creating a relatable character. On the spectrum that spans between documentation and fictionalization, I moved further towards the documentation side for the inner plot, but the outer plot retains fictional elements. Fictionalization weaves a narrative framework around an historical event; in fictionalization, we use our imagination to create a seamless story and thus, the illusion of stability and permanency.

In a sense, academic texts also create such illusions, because journal articles rarely mention the many moments of failure and desperation that lead up to the completion of a research project. The very structure of academic genres imposes a seamless progression from research question to results; the reality is that research is messy – sometimes a project results in no answers whatsoever, and yet, the way we present our work in peer-reviewed articles suggests that there is always a clearly identifiable result.

To create an instable text that resists the conventions of the traditional research project narrative is to acknowledge the unreliable, fuzzy nature of our work. One example of a text that approaches history in this fashion is Art Spiegelman's *Maus*. To be clear, I would not dare compare my work to Spiegelman's brilliant graphic novel, but there are some important parallels in the way in which I approached *The Deserters* that are worth mentioning here. *Maus* is a graphic novel with autobiographical, archival, historical and fictional elements. Spiegelman narrates his parents' survival of the Holocaust through dialogues between himself and his father, with whom he has a complex relationship. He uses anthropomorphic animals to portray his characters, depicting the Jews as mice, the Nazis as cats, and the Polish as pigs. The inner plot is largely based on recorded interviews with Spiegelman's father; in the frame narrative, Spiegelman self-consciously addresses his design choices, his complicated relationship with his family, and his own psychological struggle as a second-generation survivor. *Maus* thus takes a self-reflective postmodern approach to storytelling which emphasizes subjectivity, the volatility of memory, as well as the narrator's complicated and emotional relationship to the characters and the subject. This is not to say that facts and truth play

no role in the work of history: on the contrary, it is important that certain elements remain clear and undeniable – in the case of *Maus*, those elements are the atrocities committed by the Nazis, and the suffering and struggle for survival of the Jewish people. Spiegelman does not question those facts, but foregrounds subjectivity when it comes to the way in which the first and second generation talk about and process these painful historical truths.

With *The Deserters*, I attempted to create a work which approaches history and memory in a similar way as Spiegelman does: as volatile and subjective. In doing so, I tried to emphasize that history is the lived experience of real people who suffered and struggled, people whose lives have been shaped by the political apparatus that was imposed upon them at the time. For activist projects which address family history or use family records that reveal information about real people, living or deceased, such considerations are extremely important from an ethical standpoint. If we claim to have an objective perspective, we risk misrepresenting the people who share their stories with us, and we undermine our activist goal of empowering them and opening an honest dialogue. We further risk losing their trust, destroying our credibility, and thus the effectiveness of our activist labor. As activist scholars, we should strive for representation that remains true to lived experience, and especially consider any values or judgement that we may consciously or subconsciously build into our project: we owe that to the people we address, and to the people we represent.

Experiment with Tools and Materials

Early in the process, I realized that to make sense of the bulk of materials I had received from my family, I needed to find a way to organize the information in a way that made sense to me. The raw material was such a messy bulk of paper, it was intimidating at first. Looking back, I think my approach allowed me to relatively quickly obtain an overview of everything I had, which made it easier to tell my story in a coherent fashion.

Storyboarding was one of the many methods I used to structure the material. Combing through the materials, I created a physical note for every event, person, and place I came across; being able to move the notes around on a whiteboard and rearrange them according to different criteria – chronologically, by location, by the people involved - enabled me to notice relationships and patterns I would otherwise have overlooked. I imagine that not everyone likes to work in this fashion, and maybe some scholars prefer to work with a digital tool instead, like Story Board. I did, in fact, try that out as well, but felt that my mind worked better with the tangible notes.

The point is that I engaged the materials in several ways before I even started to plan out the way I would tell the story; I familiarized myself with the people and places involved, and tried to learn as much as possible. I conducted much additional research which never made it into this dissertation, because to include it all would have been far beyond the scope of this project. I spoke with the living members of my family whenever possible, and I combed through internet archives from the GDR to find out more about the village my grandmother grew up in – even though it never grew beyond 200

inhabitants, there was a surprising amount of information, including a long Wikipedia article.

Some of my searches were frustrating and ended up nowhere; for instance, I tried to figure out which train Ilse, Kristina, and Manfred took to get to the West, but there were no records on the GDR's train schedules from the 1950s. Nevertheless, there was value in the search; I may not always have found what I was looking for, but often discovered unexpected facts and bits of information that helped me make sense of my family's experience. Likewise, had I not experimented with the tools and materials as extensively as I did, the story I told might have turned out flat and superficial. I was able to add layers of depth only after I had accumulated an abundance of facts, methods, materials, tools, and techniques.

Attend to the Audience's Needs

An important part of the 'critical' making process is to constantly keep the needs of the audience in mind. On the level of content, the maker needs to ask themselves: what does my audience know? Where do I need to add contextual information? It is easy for the maker to overlook such gaps if the maker is deeply familiar with the content. Writing about my own family history, that was certainly the case for me; an American audience, however, might not be familiar with some of the cultural particularities of Eastern and Western Germany. For this reason, I built in story elements that serve as contextual cues: for example, the player can have a telephone conversation with the in-game character *Laura* to learn more about the historical context surrounding the story's content. These

conversations embed the found texts and photographs into the historical fabric of 20th century Germany. As the maker, I can of course never be sure if I have answered all the audience's possible questions – I do, however, feel confident that a player who can operate a Twine game can likely also use a search engine to answer any remaining questions.

In terms of the interface, I wanted the player to be able to navigate the text as freely as possible, and I wanted to structure the game in a way that would make sense to others. Again, these factors are difficult to anticipate, and any future projects which involve *The Deserters* would likely begin with a usability survey. However, for the initial making process, I began by thinking through and experimenting with possible ways of creating an accessible, navigable interface. The photo gallery, for example, is the outcome of such experimentation. To a certain extent, all makers must rely on existing visual metaphors, such as the linked arrows in the gallery which allow the player to look at the photographs in chronological order. I noted in the previous chapter that in choosing the links in this fashion relies on a Western, horizontal concept of time; audiences who are less familiar with the visual metaphor of the left-and right-pointing arrows might find this interface less accessible, but given that photo viewing software such as the default *Photos* app in Windows 10 or photo galleries on social media sites like Facebook rely on the same symbols, I felt that the majority of people who would play *The Deserters* will recognize their purpose.

Had I not attempted to account for the audience's needs, the activist goal of the game would have been compromised; after all, the point of activist critical making is not self-indulgence, but to open a dialogue with others. Had I not imagined myself in the position

of the audience during the making process, I would not have taken notice of aspects in the story which I take for granted – for instance, my familiarity with the German language as well as the country’s culture and history. Projects in activist critical making can only be successful if they are created for an audience other than the self; experimentation with different approaches to meaning-making can help authors get a better sense of how others read and interpret texts and the world in which they are embedded.

Be Transparent

Twine games are Open Source, which means that, unless the author makes an effort to hide the code, others will be able to access, modify and remix the content of a Twine game. It may be challenging to accept for some makers that if they were to publish their game in such a fashion, others can change its content. When we create works that take much time and effort, the idea that others ‘mess’ with our work may feel unbearable; however, there are many advantages to keeping the source code open. Looking back not only to our discussion of Open Source ethics in chapter three, but also the discussion of electronic literature and some of its goals in chapter two, it quickly becomes evident why an Open Source framework lends itself to activist software projects.

In chapter two, I pointed to the ideology of invisibility, i.e. the idea that most of our technologies today – especially ‘smart’ technologies like phones, tablets, or consoles – are black-boxed behind sleek, smooth interfaces. Lori Emerson argues that this ideology goes hand in hand with ubiquitous computing (xvii), an approach to engineering which aims at integrating all objects and appliances into the computational system (we see this trend

today with technologies with Virtual Digital Assistants like Amazon Echo or systems like Google home, which integrate nearly every electronic device in a household into one computational system). Many authors of electronic literature are highly critical of this development, because as interfaces increasingly become more invisible, the user is less aware of the technology's presence, let alone the ways in which it works. We might go so far as to argue that the trend towards ubicomp sets up ideal conditions for ubiquitous surveillance. In laying bare the inner workings for software rather than disguise them, the Open Source movement in many ways pushes back against this trend. Likewise, as I argued in chapter two, much of electronic literature seeks to challenge and expose the ideology of invisibility (Emerson 4). This intersection of e-lit and Open Source opens a space for exploring the ethical issues that arise due to the black-boxing of technologies. Projects like Nick Montfort's generative poem *Taroko Gorge*, which encourage readers to modify the source code and create their own version of the poem, showcase the ways in which works of electronic literature can thrive and expand when their source code is accessible.

Creating an activist critical making project in an Open Source system emphasizes transparency, openness, and an ideology of sharing. I hope that *The Deserters* can one day serve as an inspiration or template for other Twine game makers who want to tell their own story. Moreover, in a context of activism, leaving the source code accessible places trust in the audience, and it is therefore also a step towards opening a dialogue and inviting others to participate.

On the other hand, hiding the source code from the audience betrays a sense of mistrust and skepticism. Hiding my code in Twine suggests that I made an effort to disguise how I

built my project, either because I worry that others might profit or benefit from my work, or because I worry that others might judge it. The former reason should not be a concern in activist work; on the contrary, the benefit of others is the point of activism. The second reason – the concern that my code is flawed, and others might see my errors – is one I can relate to. However, instead of hiding my code, this concern drove me to work harder on improving the game's programming until it reached a state which was worthy of being seen. Moreover, at least within the Twine community, the audience tends to be understanding and helpful rather than critical and dismissive. Overall, I therefore felt that the benefits of sharing the project's code outweigh the risks. In activist, non-profit contexts, hiding one's code is hardly justifiable.

Be Vulnerable

In my discussion of activism in chapter one, I have emphasized the importance of vulnerability (hooks 21). Being vulnerable can be uncomfortable, and many scholars and teachers in higher education avoid it at all cost, possibly because the patriarchal interpretation of vulnerability is weakness. In a sense, that is true; if we make ourselves vulnerable, we intentionally decrease the effect of our own authority as scholars and teachers. It makes us less intimidating to people who are afraid to speak up in our presence, and it creates a safer environment for those who have reason to mistrust our institutional authority.

The academy has a long history of sexism, racism, ableism, and other forms of exclusion. Populations who have been marginalized may not feel comfortable engaging in

activist projects with us or sharing their thoughts and opinions with someone who represents such institutions. To reinforce our authority as scholars or teachers only further alienates historically marginalized people. There are barriers that we need to break down first, and the responsibility is on us. Therefore, vulnerability is a key part of activist scholarship: it is a starting point to attack those barriers.

Vulnerability can take many forms and shapes, but in the case of this project, it was ever-present because of the personal subject matter. In chapter one I argued that personal narrative and confessional stories are some of the ways in which we can make ourselves vulnerable, and in a sense, *The Deserters* is such a story. While it is not a story about the self, explicitly, it is a story about family, and family is intertwined with our identity in intimate ways. To write about family history is to write about where we come from, it is about exploring at least part of what made us who we are today. Few subjects are more personal than family, and to write about mine in an academic context – bringing together to realms of my life which are otherwise strictly separate – made me feel vulnerable every step of the way. I cannot determine with certainty if that vulnerability will have the desired effect upon the audience. However, it is my impression that the openness and transparency of the technical aspect of these projects is mirrored in its content; in both ways, I am sharing with, and opening up to, the audience. Doing so constitutes an invitation for others to do the same; whether or not they accept the invitation is up to them.

Take your Time

Because this project took place in the context of my dissertation, I created *The Deserters* entirely by myself. The work I described in chapter four offers mere glimpses on the overall process. The project developed over many months and was revised several times in the process. For example, I scrapped countless ideas for the framing narrative until I arrived at a satisfying solution. Likewise, my initial code has radically changed since I first implemented it. While much of my early work does not appear in the final version of *The Deserters*, I needed the steps in between to come up with the best possible solutions for the challenges I encountered. The creation of the Photo Gallery is a good example: I started by thinking through the functions I wanted the photo gallery to fulfill; then, I implemented the idea with the knowledge and skills I had at the time. The solution I came up with was simple, but awkward and bulky. However, I needed this first approach in order to come up with a more effective and concise version. Even though Twine is highly accessible, its more complex features are not as well documented as the simpler, more commonly used ones. It took a considerable amount of time to get the functions I had in mind to work.

This kind of recursive work flow characterized the entire project. To arrive at the final version took experimentation, failure, and frequent revision. Coding can be especially frustrating for humanists, because we might be tempted to think of coding as a form of writing. In terms of process, that might be true (both text forms benefit from feedback and revision). However, while both writing and coding are governed by rules, writing allows us to focus on semantics first and foremost; when we draft in writing, we

can be quite sloppy, but sloppy code is unlikely to even function. In my experience, writing and coding do require a different mindset. For me, it was near impossible to work on the code of *The Deserters* and its textual elements on the same day. In such cases, it is helpful to take a step back and let some time pass: doing so allowed me to look at my own work from a distance, and it became easier to reflect on my design decisions. While not everyone works that way, the undeniable fact is that a project which involves both writing and coding takes time. Careful planning and management are key.

For future projects of this kind, it is my sincere hope that I will have opportunities to collaborate with others. An intense solo project can be quite isolating. Certainly, that is an experience that many of us have during their dissertation. However, for projects which are not bound to the fulfillment of an academic requirement that calls for solo work, I would recommend a collaborative approach. While group work may come with its own challenges, working with others not only lifts the work load significantly, but also adds a more diverse perspective on the project. In scholarly contexts, team efforts can draw on the different strengths and skills of participants and are more likely to get funding.

Concluding Statement

Making in the digital humanities has come a long way. Among the scholars who engage with physical material, many view their goals as political (Ratto and Boler, Mann, Milberry). This work has moved the conversation on critical making further towards political activism, and it is my sincere hope that other scholars continue to move down this path.

Throughout the process of building this project, I was faced with constraints that limited the scope of the project. I have previously mentioned that time was one such limitation, but the temporal factor is intertwined with a financial constraint: when I set out to write my dissertation, I knew I had exactly three semesters before my assistantship ended. Going beyond that would have required me to pay tuition, which I was not sure I could afford at the time. I therefore strove to complete the project within the remaining three semesters that were covered. If I had had greater financial security and more time, I would have expanded the project and included features to enhance the gameplay of *The Deserters*. Specifically, I would have included more elements that foreground the instability of text. So far, I have emphasized the game's ability to showcase the real-life experiences of my family members in an exploratory fashion. There are a few playful elements which I did not discuss extensively in this dissertation, because I prioritized the scholarly and activist components of the story. One such example is the song book which shows different Cold War-related protest songs; song titles are randomly selected from a list each time the player enters or re-enters the living room in the game. Likewise, in another room, the player will find two books on a table which change their title each time the room is visited.

Looking back, I believe that these more playful elements are, in fact, integral parts of activist critical making: the randomness factor is an excellent metaphor for the instability of text, and, in the context of *The Deserters*, the instability of memory and history. The bits of information which the player finds in *The Deserters* are filtered through the memories of three women who tell their story. The existence of randomized

elements within the game is a reminder that the permanency we expect to find in texts – especially in academic texts about history – is an illusion. Our perception of history is always filtered through the blurry lenses of memory and narrative. My decision to choose a documentary-oriented approach over a fictionalized story was likewise an attempt to address this issue and tell a more honest version of the story, in the sense that the documentary approach acknowledges the patchwork-like fabric of history more so than fictionalization does. With more time, I would have expanded on this aspect by including more unstable elements in the game. Doing so would have allowed me to further draw the audience's attention towards the constantly changing environment, making the instability of memory and text a more explicit theme in the overall story.

The most pressing questions which arise from this dissertation pertain to the distribution and reception of activist works. How can we distribute activist works among large audiences while ensuring accessibility and inclusivity? How do players respond to different works of activist critical making, and what tools and methods can we use to measure their response? To what extent are the messages that activist makers hope to send received by the audience? There is an emerging body of scholarship which touches upon questions of values and ethics in games (Flanagan and Nissenbaum). However, to date there is no research on the effectiveness of activist games and projects.

Much of the work in this dissertation pertains exclusively or primarily to the project at hand; in future research projects, the parameters should be changed so that we can draw generalizable conclusions about the value of activist critical making in the digital humanities. For example, the framework could be applied to a game making

platform other than Twine. The present work has focused on text-driven games, but audiovisual games or works of electronic literature could also serve activist goals.

In this dissertation, I have shown that Twine is a strong venue for activist work and personal story telling, and I hope that my findings give others the courage to experiment with game making or programming. Most importantly, it is my sincere hope that *The Deserters* will inspire people whose families have immigrated or experienced displacement to join the dialogue and share their story. Together, we can make a difference.

APPENDIX A: STORY MAP OF *THE DESERTERS*

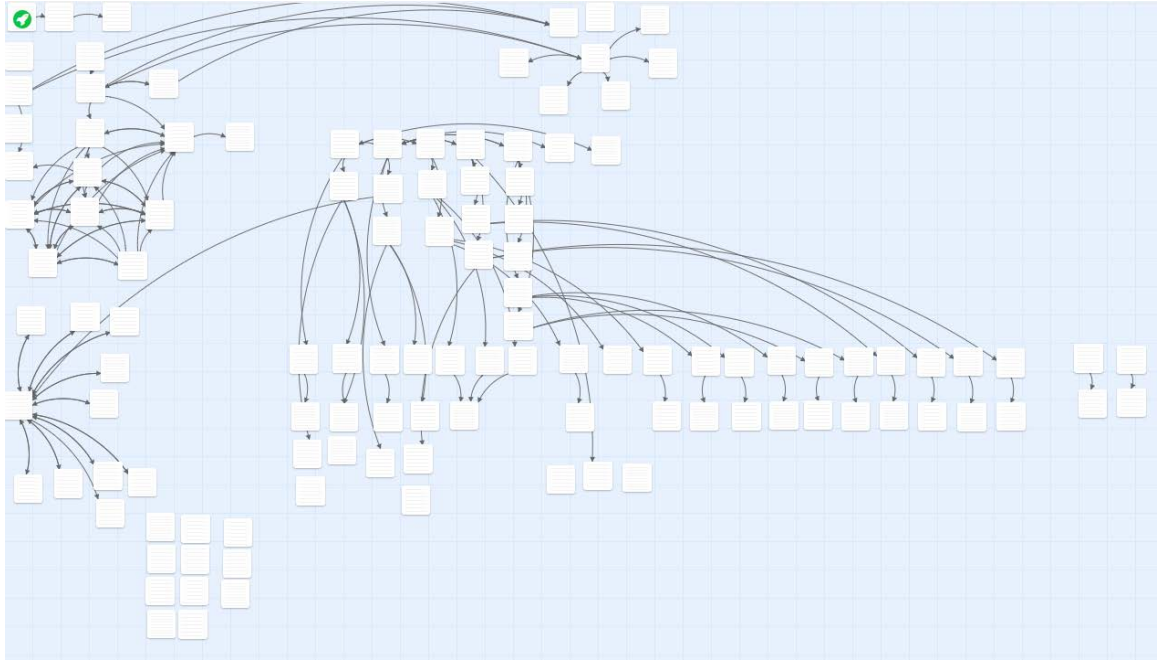


Figure 21 Story Map of The Deserters

APPENDIX B: LIST OF DIGITAL GAMES

<i>Depression Quest</i>	7
<i>game, game, game and again game.....</i>	39
<i>Golden Threads.....</i>	58
<i>Lesbian Vampire Dating Online</i>	50
<i>Never Go To Work</i>	48
<i>Queered Static.....</i>	50
<i>Queers in Love at the End of the World.....</i>	51
<i>The Hunt for the Gay Planet.....</i>	7
<i>With Those We Love Alive</i>	7
<i>Zine Fair Lady</i>	49

APPENDIX C: TWINE CODE FOR *THE DESERTERS*

```

1 deserters_draft_3
2
3 $center[<h2 class="first">[[The Deserters->PartI]]</h2>]
4 $center[]
5 [[shortcut to PartII->hallway]]
6 (set: $character to $LauraData)
7 (display: "profile")
8 (set: $character to $IlseData)
9 (display: "profile")
10 (set: $character to $KristinaData)
11 (display: "profile")
12 (set: $character to $PlayerData)
13 (print: $name)
14 (print: $character's profession)
15 (print: $character's lifestat)
16
17 Your Patience Level is $PatienceStat.
18 (if: $KnowledgeStat is 0)[(print: "You do not have any knowledge of the case at this
point.")]
19 (else:)[(print: "Your knowledge is at level $KnowledgeStat")]
20
21 (link-goto: "Return to game", $lastPassage)
22 (set: $name to (prompt: "Your name, please:", "Frances"))
23 {
24 It's nice to meet you, $name. I'm glad you answered my Craigslist ad. It sounds like you
love to travel! I'm looking for a student researcher to help me organize some archival
family documents. What's your major?
25 }
26 [History]<p1|
27 [Library Science]<p2|
28 [Engineering - but I'm a Hobby Genealogist]<p3|
29 [Digital Humanities]<p4|
30 {
31 (click: ?p1)[(set: $PlayerData's profession to "Historian")(set: $PatienceStat to
2)(goto: "Welcome")]
32 (click: ?p2)[(set: $PlayerData's profession to "Librarian")(set: $PatienceStat to
2)(goto: "Welcome")]
33 (click: ?p3)[(set: $PlayerData's profession to "Engineer")(set: $PatienceStat to
1)(goto: "Welcome")]
34 (click: ?p4)[(set: $PlayerData's profession to "Digital Humanist")(set: $PatienceStat to
2)(goto: "Welcome")]
35 }
36 {
37 That's perfect! You have just the right set of skills for this job, $name.
38
39 [[What is the job?->Job]]
40 }
41 I'm looking for any documents, records, or photographs related to my maternal
grandmother, Ilse Grosse, along with anything about my mother, Kristina Moller. I would

```

like you to focus on documents from between 1924 and 1987 - that is, before I was born - and specifically look for information on their escape from Eastern Germany to the West.

42

43 Any other questions or concerns?

44

45 [[How do I get to Germany?->Germany]]

46 [[Does anyone live in the house? ->House]]

47 [[Why do you need these documents so desperately?->Dissertation]]

48

49 [[I think I got everything. ->proceed]]

50 (set: \$IIs set to true)

51 (set: \$Kristina to true)

52 (set: \$KnowledgeStat to 2)

53 I need you to retrieve some family documents and photographs from Germany. The documents are scattered in the house I grew up in. You will need to search every room carefully. This may take plenty of [[patience and knowledge->Stat]] about my family. Anything new you learn will appear in the [[family files->familyfiles]]. That way, you can keep track of the knowledge you've already acquired. You can keep an overview of your progress any time by accessing your [[personal file->PlayerProfile]]. Oh, by the way, your [[backpack->backpack]] contains a special device that will help you navigate your environment.

54

55 Unless [[you've done this before->proceed]], I'm sure you have plenty of [[questions->qanda]] for me.

56

57

58

59

60 Normally, my Mum lives in the house, but right now she is travelling for a few months. She's a retired teacher. She rents the house out to other travellers while she's away, and you're going to be one of them.

61

62 Once you're at the house, make yourself at home, but be sure to keep things in order. This is an old house, and my family has lived there for three generations - the documents I'm looking for are dispersed over different rooms and niches of the place, and it may not be easy to find them.

63

64 Any other questions or concerns?

65

66 [[How do I get to Germany?->Germany]]

67 [[Does your Mum know I'm there to pick up documents?->Lie]]

68 [[What kind of documents are you looking for?->Documents]]

69 [[Why do you need these documents so desperately?->Dissertation]]

70

71 [[I think I got everything. ->proceed]]

72 I told her I would send a friend to get the documents. That's close enough to the truth. I would go myself, but I am applying for a US Green Card and I can't leave the country at this time.

73

74 Any other questions or concerns?
75
76 [[How do I get to Germany?->Germany]]
77 [[Does anyone live in the house? ->House]]
78 [[What kind of documents are you looking for?-> Documents]]
79 [[Why do you need these documents so desperately?->Dissertation]]
80
81 [[I think I got everything. ->proceed]]
82 I need these documents for my dissertation. My project is kind of an experiment. I want to research my maternal family, specifically my grandmother's life, within its historical, cultural, and political context. I think there's a powerful and important story that people need to hear - especially now, in 2018. The twist is, I'm telling the story in Twine.
83
84 Any other questions or concerns?
85
86 [[How do I get to Germany?->Germany]]
87 [[Does anyone live in the house? ->House]]
88 [[What kind of documents are you looking for?-> Documents]]
89
90 [[I think I got everything. ->proceed]]
91 Well, first, I'll do a quick background check on you with the help of a friend in law enforcement - no offense. Once you're cleared, we'll agree on a date and I'll buy your tickets. I will also arrange for a ride from the airport to the house.
92
93 Any other questions or concerns?
94
95 [[Does anyone live in the house? ->House]]
96 [[What kind of documents are you looking for?-> Documents]]
97 [[Why do you need these documents so desperately?->Dissertation]]
98
99 [[I think I got everything. ->proceed]]
100 Your patience increases with every half hour you spend playing.
101
102 Your knowledge increases with every item you find.
103
104 You can always check your levels in your [[personal file->PlayerProfile]].
105
106 [[Got it->Job]]
107 {
108 Alright, unless you have [[anymore questions->qanda]], I think you're good to [[go->PartII]]!
109
110 (set: \$IIs to true)
111 (set: \$Kristina to true)
112 (set: \$KnowledgeStat to 2)
113 }
114 [[How do I get to Germany?->Germany]]
115 [[Does anyone live in the second house? ->House]]
116 [[What kind of documents are you looking for?-> Documents]]

117 [[Why do you need these documents so desperately?->Dissertation]]
118
119 [[I know everything I need to know.->proceed]]
120 {(set: \$IIs to true)
121 (set: \$Kristina to true)
122 (set: \$KnowledgeStat to 2)
123 }
124
125 (live: 7s)[(align:"==>")[(link-goto: "Disembark plane and travel to Laura's house", "hallway")]]
126 <audio src="airplane.wav" autoplay>
127 {(if:(count:(history:), "hallway") is 0)[(set: \$KnowledgeStat to 1)]\$center[<h2>Hallway</h2>]
128
129
130 You walk through the front door into the a dimly lit corridor. The rain has soaked your clothes, and a puddle appears by your feet. The warmth of the house feels soothing, but it hasn't quite reached your hands and feet. You take off your dripping jacket and shoes.}
131
132 Some framed photographs are hanging on the west wall; a [[black and white image->1]] of a young woman stands out.
133
134 At the end of the hallway on the floor, you see a worn-down [[leather briefcase->briefcase]], some [rain boots], and a [coat hanger].
135
136 A wooden door at the end of the hallway leads (link-reveal: "north.")[(if: \$photocount is false)[(color: red) ["Hmm... Maybe you should take a look around before you head to the next room."]](else:)[(goto: "diningroom")]] A staircase leads [[up->myroom]] to the second floor. There is a [[small white door->basement]] beneath the staircase.
137 {\$center[<h2>Dining Room</h2>]
138
139
140 In the dining room, you find an eclectic arrangement of modern furniture and antiques.}
141
142 To your left, you see a wooden pump organ; some of its keys are stuck. An open [songbook] with worn-out pages shows the chords of (either:...\$song).
143
144 Above the instrument, an abstract watercolor painting shows some intersecting lines and circles; somehow, they remind you of a windmill. You note that the painting is hanging just slightly [[off center->3]].
145
146 In the center of the room you see a round black table surrounded by five leather chairs. Beyond it, a glass door leads [[outside->backporch]] onto a fenced-in terrace.
147

148 Across from the table, the open space extends south into the [\[\[living room\]\]](#). Ahead in the southeast corner, you see a wooden [\[\[secretary desk->desk\]\]](#) with a round hutch and several drawers. On top of it, there is a [\[\[wireless telephone->phone\]\]](#).

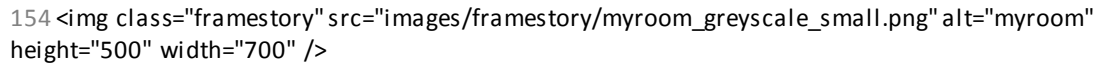
149

150 To your right, a [\[\[Victorian cabinet->cabinet\]\]](#) with delicate stained-glass doors holds some antique glassware, silverware and dishes.

151

152 Behind you, one wooden door leads [\[\[east->kitchen\]\]](#), and another leads south back to the [\[\[hallway\]\]](#).

153

154 A greyscale image of a room with a desk, shelves, and a couch.

155

156 You enter a room which must have belonged to a teenager. The walls are covered in posters and every surface carries decorative trinkets.

157

158 To your right, you see a tall bookshelf which is crammed with books top to bottom. A shorter shelf of the same kind stands on the opposite wall; it mostly holds books, but the lower shelf carries a [\[\[box\]\]](#).

159

160 A leather couch and a small glass table in between the two shelves make up a cozy reading corner. Maybe you can hang out here for a bit and find some books which can help you with your task.

161

162 Ahead of you is a wooden table with an unfinished painting and two books on top of it:

163

164 The window behind the desk looks out west on the street, where you can see some 19th century half-timbered houses next to recently finished family homes. To its left, you see a [\[\[cork board\]\]](#) carrying notes, photographs, and slips of paper.

165

166 (link-goto: "Go back downstairs", "hallway")

167 {

168 (unless: (passage:)'s tags contains "nofooter")
Check your [\[\[backpack\]\]](#)
 View [\[\[family files ->familyfiles\]\]](#)
 View your [\[\[profile->PlayerProfile\]\]](#)

169 (else:)<!--Do nothing-->

170 }

171 (if: \$backpack's length > 0)[Your backpack contains the following items: (print: \$backpack.join(", ")).]

172 (else:)[Your backpack is empty.]

173

174

175 (link-goto: "Return to game", \$lastPassage)


176

177 {

178 (set: \$photocount to true)

179 (if: (count: (history:), "Huckardel") is 0)[(set: \$Photos to \$Photos + (a: "one"))]

180 (else:)[Manfred's First Day of School.]

181 A greyscale image of a game folder containing photos from 1956-1968.

```

width="486"/>
182 [[Examine backside]<examine|
183 (click: ?examine) [(replace: ?examine)[(display: "Huckardeltext")]]
184 }
185 {(if: $Photos contains "two")[Photo gallery (link-goto: ">", "WernerKristinaIlse")]
186 (else:)[<!--Do nothing-->]}
187 (link-goto: "Return to game", $lastPassage)
188 Known family members:
189 [[Laura ->LauraProfile]]
190 (if: $Ilse is true)[[[Ilse->IlseProfile]]]
191 (if: $Werner is true)[[[Werner ->WernerProfile]]]
192 (if: $Kristina is true)[[[Kristina ->KristinaProfile]]]
193 (if: $Manfred is true)[[[Manfred ->ManfredProfile]]]
194 (if: $photocount is true) [(link-goto: "View photographs", $photopassage)]
195 (if: $lettercount is true) [(link-goto: "View letters", $letterpassage)]
196 (if: $documentcount is true)[(link-goto: "View documents", $documentpassage)]
197 (link-goto: "Return", $lastPassage)
198 {
199 (if: not ((passage:)'s tags contains "menu"))[(set: $lastPassage to (passage:)'s name)]
200 (if: (passage:)'s tags contains "photo")[(set: $photopassage to (passage:)'s name)(if:
(count: (history:), $photopassage) is 0)[(align: "=>=")[You found a
photograph!]]](else:)[<!--Do nothing-->]}
201 {
202 (if: (passage:)'s tags contains "document")[(set: $documentpassage to (passage:)'s
name)(if: (count: (history:), $documentpassage) is 0)[(align: "=>=")[You found a
document!]]](else:)[<!--Do nothing-->]}
203 }
204 {
205 (if: (passage:)'s tags contains "letter")[(set: $letterpassage to (passage:)'s
name)(if: (count: (history:), $letterpassage) is 0)[(align: "=>=")[You found a
letter!]]](else:)[<!--Do nothing-->]}
206 }
207 The back of the image reads:
208
209 [/Manfred's erster Schultag in Dortmund Huckarde. Von links nach rechts: Manfred,
Ilse, Kristina.//]<imagetext|
210
211 [[Translate]<translate|
212
213 (click: ?translate)[(replace: ?translate)[("Manfred's first day at school in Dortmund
Huckarde. From left to right: Manfred, Ilse, Kristina."))]
214 {(set: $photocount to true)
215 (if: (count: (history:), "WernerKristinaIlse") is 0)[(set: $Photos to $Photos + (a:
"two"))]}
216 (else:)[Werner, Kristina, and Ilse.]}
217 
218 [[Examine backside]<examine|
219 (click: ?examine) [(replace: ?examine)[(display: "WernerKristinaIlseText")]]]
220 {(if: $Photos contains "one")[(link-goto: "<", "Huckardel")Photo gallery]
221 (else:)[<!--Do nothing-->]}

```

```

222 (if: $Photos contains "three")[(link-goto: ">", "rohrbachstreet")]
223 }
224 (else:)[<!--Do nothing-->]
225 (link-goto: "Return to game", $lastPassage)
226 The back of the image reads:
227
228 [//Werner, Kristina, und Ilse in Rohrbach, ca. 1950.//]
229 The briefcase contains [[a piece of paper->img|ltext]], a [[document file->docl]], and
a [[photograph ->2]].
230
231 (link-goto: "Return", "hallway")
232 {
233 (set: $lettercount to true)
234 (align: "=>")[Rohrbach, 4/5/1955]
235 }
236 //Dear Daddy!
237
238 Today we received your kind Easter package. We were mighty glad about it! We already
finished the peanuts. We thank you from our hearts for everything. I am still on school
break for the Spring. Manfred is sleeping. Today it's snowing again. Hopefully it will
be nice and warm soon, so we can play outside. Manfred and I often talk about you. We
are glad that you thought of us.
239
240 Stay healthy and cordial greetings from your children,
241
242 Kristina and Manfred//
243 (link-goto: "Return to game", $lastPassage)
244 {(set: $name to "Frances")}
245 (set: $character to "")
246
247 (set: $LauraData to (dm:"firstname","Laura", "lastname", "Okkema", "yearborn", 1987,
"lifestat", "alive", "Relation", "Kristina's daughter; Ilse's granddaughter"))
248 (set: $IlseData to (dm:"firstname", "Ilse", "lastname", "Grosse", "yearborn", 1924,
"lifestat", "deceased", "Relation", "Kristina's mother; Lauras grandmother"))
249 (set: $KristinaData to (dm:"firstname", "Kristina", "lastname", "Moeller", "yearborn",
1948, "lifestat", "alive", "Relation", "Ilse's daughter; Lauras mother"))
250 (set: $WernerData to
(dm:"firstname", "Werner", "lastname", "Grosse", "yearborn", 1925, "lifestat", "deceased", "Realitio
n", "Ilse's husband, Kristina's father, Laura's grandfather"))
251 (set: $ManfredData to
(dm:"firstname", "Manfred", "lastname", "Grosse", "yearborn", 1952, "lifestat", "alive", "Realitio
n", "Ilse's son, Kristina's brother, Laura's uncle"))
252 (set: $PlayerData to (dm:"profession", "unknown", "lifestat", "alive"))
253
254 (set: $Ilse to false)
255 (set: $Kristina to false)
256 (set: $Manfred to false)
257 (set: $Werner to false)
258 (set: $backpack to (a:"the Translator X550p Special Edition, GE-EN"))
259 (set: $photocount to false)

```

260 (set: \$lettercount to false)
 261 (set: \$documentcount to false)
 262 (set: \$boxkey to false)
 263 (set: \$kitchenkey to false)
 264 (set: \$basementkey to false)
 265 (set: \$Photos to (a:))
 266 (set: \$Documents to (a:))
 267 (set: \$documenttext to "")
 268 (set: \$imagetext to "")
 269 (set: \$documentpassage to "")
 270
 271 (set: \$lastPassage to "")
 272 (set: \$photopassage to "")
 273 (set: \$letterpassage to "")
 274
 275 (set: \$center to (align: "=>=<"))
 276
 277 (set: \$song to (a: "Back in the USSR by The Beatles", "Wind 'of' Change by The
 Scorpions", "The International", "Another Brick in the Wall by Pink Floyd", "Leningrad
 by Billy Joel", "Mother Russia by Iron Maiden", "Imagine by John Lennon", "Child in
 Time by Deep Purple", "Radio Free Europe by REM", "Killing in the Name by Rage Against
 the Machine", "Satellite by Rise Against", "The Times They Are a-Changin' by Bob
 Dylan", "Redemption Song by Bob Marley", "Let's Impeach the President by Neil Young",
 "Panic by The Smiths", "Fight the Power by Public Enemy", "Nazi Punks F#%k Off by Dead
 Kennedys", "Rebel Girl by Bikini Kill"))
 278
 279 (set: \$book1 to (a: "an illustrated copy of J.R.R. Tolkien's Lord of the Rings",
 "Astrid Lindgren's Ronia, the Robber's Daughter", "Michael Ende's Never Ending Story",
 "Cornelia Funke's Inkheart", "Tamora Pierce's The Song of the Lioness", "Anne Rice's
 Interview with the Vampire", "Philip Pullman's Northern Lights", "J.R.R. Tolkien's The
 Hobbit", "Marion Zimmer-Bradley's The Mists of Avalon"))
 280 (set: \$book2pre to "J.K. Rowling's Harry Potter and the")
 281
 282 (set: \$book2 to (a: "Philosopher's Stone", "Chamber of Secrets", "Prisoner of Azkaban",
 "Goblet of Fire", "Order of Pegasus", "Half-Blood Prince", "Deathly Hallows"))
 283
 284
 285 }
 286 The door is locked.
 287
 288 If only you had the key...
 289
 290 (link-goto: "Return", \$lastPassage)
 291 {(set: \$photocount to true)
 292 (if: (count: (history:), "rohrbachstreet") is 0){(set: \$Photos to \$Photos + (a:
 "three"))Your perfectionism compels you to adjust the position of the painting - as you
 shift the frame, something slips out from behind the painting.]
 293 (else:)[Rohrbach (Belgershain), main street, ca. 1950]}
 294
 295 {[Examine backside]<examine|

```

296 (click: ?examine) [(replace: ?examine)[(display: "rohrbachstrassetext")]]
297 }
298 {(unless: $Photos contains "two")[(link-goto: "<", "Huckardel")Photo Gallery]
299 (else:)[(link-goto: "<", "WernerKristinIlse")Photo gallery]}
300 (link-goto: "Return to game", $lastPassage)
301 The back of the image reads:
302
303 [//Rohrbacher Dorfstr., Rohrbach (Belgershain), etwa 1950.//]<imagetext1 |
304
305 {[Translate]<translate|
306
307 (click: ?translate)[(replace: ?translate)["Rohrbach's main village street, Rohrbach
308 (Belgershain), about 1950."]]}
309 {
310 (set: $imagetext1 to "Ilse, ca. 1935")
311 (set: $imagenamename to 1)
312 (display: "photoinit")
313 }
314 
316 {
317 (display: "funct1")
318 (display: "photogallery")
319 }
320 {
321 (if: (count: (history:), $currentpassage) is 0)[(link: "Examine backside")A folded
322 [[piece of paper ->imgltext]] is attached to the back of the photograph with a
323 paperclip. You carefully remove the paper. It looks like a page torn from a journal.
324 There is also a smeared inscription on the back of the photograph. It reads:
325 (print: $imagetext1)]
326 (else:)[(link-goto: "Read journal entry", "imgltext")]
327 }
328 (link-goto: "Return to game", $lastPassage)
329
330 {
331 (set: $imagetext1 to "Ilse and her classmates at Belgershain School, ca. 1936")
332 (set: $imagenamename to 2)
333 (display: "photoinit")
334 }
335 
337 {
338 (display: "funct1")
339 (display: "photogallery")
340 (display: "funct2")
341 }
342 {
343 (link: "Examine backside")The backside of the photographs reads: Ich stehe in der
344 dritten Reihe von vorne, das zweite Mädchen von rechts, vor meinem
345 Lehrer.<br><br>(link: "Translate") [I'm standing in the third row from the front, the
346 second girl from the right, in front of my teacher] ]

```

```

337 {(unless: (count: (history:), $currentpassage) is 0)[[Read journal entry->imgI|text]]]}
338 (link-goto: "Re-open briefcase", "briefcase")
339 (link-goto: "Return to game", $lastPassage)
340 {
341 (if: (count: (history:), $currentpassage) is 0)[Your perfectionism compels you to
adjust the position of the painting - as you shift the frame, something slips out from
behind the painting. It is a photograph and a [[note->imgI|text]].]
342 (set: $imagetext1 to "Ilse, ca. 1940")
343 (set: $imagenamename to 3)
344 (display: "photoinit")
345 }
346 
347 {
348 (display: "funct1")
349 (display: "photogallery")
350 (display: "funct2")
351 }
352 (else:)[<!--Do nothing-->]
353 (link: "Examine backside")[(print: $imagetext1)]
354 {(unless: (count: (history:), $currentpassage) is 0)[[Read journal entry->imgI|text]]]}
355 (link-goto: "Return to game", $lastPassage)
356 {
357 (set: $imagetext1 to "Ilse's first wedding")
358 (set: $imagenamename to 4)
359 (display: "photoinit")
360 }
361 
362 {(display: "funct1")
363 (display: "photogallery")
364 (display: "funct2")
365 }
366 (link: "Examine backside")[(print: $imagetext1)]
367 (link-goto: "Re-open desk", "desk")
368 (link-goto: "Return to game", $lastPassage)
369 {
370 (set: $imagetext1 to "Ilse and Werner")
371 (set: $imagenamename to 5)
372 (display: "photoinit")
373 }
374 
375 {(display: "funct1")
376 (display: "photogallery")
377 (display: "funct2")
378 }
379
380 (if: (count: (history:), $currentpassage) is 0)[(link: "Examine backside")[(print:
$imagetext1) <br> A [[journal page->imgV|text]] is attached to the photograph.]]

```

381 (else:)[[View journal page->imgVtext]]
382 (link-goto: "Re-open box", "box")
383 (link-goto: "Return to game", \$lastPassage)
384 (set: \$page to "I") (display: "ijournal") (set: \$Ilse to true) (if: (count: (history:),
"imgItext") is 0) [(set: \$KnowledgeStat to it+ 1)]
385
386 <div class="german">[[Als ^^jüngstes^^ Kind sehr alter Eltern (Vater 66 J., Mutter 42
J.) kam ich am 28.9.24 in dem ^^163 Einwohner zählenden^^ kleinen Dörfchen Rohrbach –
20 km von Leipzig entfernt – zur Welt. Ich war das 3. Kind und die einzige Tochter
meiner Mutter. Meinen ältesten Bruder Georg habe ich nicht gekannt. Er starb mit 15 ½
Jahren nach einer Blinddarmoperation, als ich ein halbes Jahr alt war. Zu meinem Bruder
Rudolf, 6 Jahre älter als ich, hatte ich schon ganz früh ein inniges Verhältnis, zumal
auch mein Vater schon starb, als ich gerade 3 ½ Jahre alt war. ^^An ihn kann ich mich
nur noch schwach erinnern.^^ Mein Vater war Müllermeister gewesen und hatte eine kleine
Wassermühle mit Brotbäckerei u. Landwirtschaft aufgebaut. Nach seinem Tode führte meine
Mutter unser Geschäft weiter.//]</div>
387
388 (link: "Translate to English") [(show: ?english)]
389 [<div class="english">"As the ^^youngest^^ child of very old parents (father 66y.,
mother 42y.), I was born on 09/28/24 in Rohrbach, ^^population 168^^ a tiny village 20
kilometers out of Leipzig. I was my mother's third child and only daughter. I never
knew my oldest brother Georg. He died at age 15 ½ after an appendectomy when I was only
6 months old. From an early age, I was close with my brother Rudolf, who was six years
my senior, because my father passed away when I was only 3 ½ years old. ^^I can barely
remember him at all.^^ My father had been a miller and had built a little water mill
with a bakery and a farm. After his death my mother continued to run our
business."</div>] (english|
390
391 (link-goto: "View photograph", "1")
392 (link-goto: "Return to game", \$lastPassage)
393 (set: \$page to "V") (display: "ijournal") (set: \$Ilse to true) (set: \$Werner to true)
394
395 [<div class="german">[[Im Febr. 1945 ^^Kennenlernen meines^^ ^^lernte ich meinen
jetzigen^^ Mann^^es^^ kennen. ^^Es war^^ Liebe auf den ersten Blick von beiden Seiten.
^^Ein^^ Briefwechsel v. Aug. 45-Sept. 47 aus ^^der^^ Gefangenschaft ^^folgte^^. ^^Im^^
Sept. 47 zu meinem Geburtstag ^^Rückkehr aus^^kehrte er aus der^^ Gefangenschaft
^^zurück.^^~Dez 47 Hochzeit^^ ^^Wir heirateten im Dez.^^//</div>]
396
397 (link: "Translate to English") [(show: ?english)]
398
399 [//<div class="english">[[In Febr. 1945 ^^meeting of current^^I met my current husband
at my friends' place. ^^It was^^ love at first sight for both of us. ^^An^^ epistolary
correspondence out of war imprisonment from Aug. 45-Sept. 47 ^^followed^^. ^^He
returned from^^ imprisonment ^^in^^ Sept. 47 on my birthday. ^^Dec 47 wedding^^ ^^We
married in December^^.//</div>] (english|
400
401 (link-goto: "Re-open box", "box")
402 (link-goto: "View photograph", "5")
403 (link-goto: "Return to game", \$lastPassage)
404 (set: \$page to "II") (display: "ijournal") (set: \$Ilse to true)

405

406 <div class="german">[/Ich hatte eine sehr behütete Kindheit und wurde ^^von allen Seiten^^ verwöhnt. Die Schule fiel mir leicht. Als ich 10 Jahre alt war, versuchte mein Schulleiter, meine Mutter zu überreden, mich zu einer höheren Schule zu schicken. Meine Mutter lehnte ab, weil ich es nicht wollte und vor allem Neuen Angst hatte. Bei meiner Entlassung von der Volksschule ^^1939^^ war es ähnlich. Ich sollte eine kostenlose ^^Lehrer^^ausbildung erhalten, aber meine Angst davor war zu groß u. meine Mutter überließ mir die Entscheidung. ^^Ein Bruder meiner Mutter sagte damals zu mir: "Überleg es Dir gut, denn die Nazis geben nichts umsonst."^^ Nach der Volksschule besuchte ich dann noch ein Jahr lang täglich die Volksklasse einer Haushaltsschule und arbeitete dann ab 1940 als Wirtschaftsgehilfin im elterlichen Betrieb.]/</div>

407

408 (link:"Translate to English")[(show: ?english)]

409

410 [<div class="english">"I had a very sheltered childhood and was coddled ^^by everyone around me^^. School was easy for me. When I was ten years old, my headmaster tried to convince my mother to send me to a higher-level school. My mother declined, because I was afraid of all things new and did not want to go. Likewise, when I left elementary school in 1939, I was supposed to receive free ^^teacher^^ training, but my anxiety was too overwhelming and my mother left the decision up to me. ^^One of my mother's brothers said to me: "Choose carefully, nothing's for free with those Nazis."^^ After elementary school I attended a school for housekeeping for a year and worked in my parents' business starting 1940."</div>](english|

411

412 (link-goto: "Open briefcase", "briefcase")

413 (link-goto: "View photograph", "2")

414 (link-goto: "Return to game", \$lastPassage)

415 {(set: \$documentcount to true)}

416 (set: \$documenttext1 to "Ilse's report card, 1931 to 1939")

417 (if: (count: (history:), "doc1") is 0){(set: \$Documents to \$Documents + (a: "I"))}{(else:)}[(align: "=>=")]{(print: \$documenttext1)}]}

418

419

420 {(if: \$Documents contains "II")[(align: "=>=")]{(link-goto: ">", "doc1text")}]}

421 (else-if: \$Documents contains "III")[(align: "=>=")]{(link-goto: ">", "map")}]}

422 (if: \$Documents contains any of (a: "II", "III"))[(align: "=>=")]{View Documents}]{(else:)}[<!--Do nothing-->]

423 }

424

425

426 [Decipher Sütterlin Script]<decipher|

427

428 [Das Deutsche Reich ist ewig durch die Jugend.
 Entlassungszeugnis

](link: "Translate to English")[(show: ?english)](german|

429

430 [The German Empire is eternal through its youth.
 School Certificate
 Yikes - that sounds like some real Nazi bullcrap.](english|

431 {

432 (click: ?decipher)](show: ?german)]

```

433 }
434 (link-goto: "Open document file", "docltext")
435 (link-goto: "Open briefcase", "briefcase")
436 (link-goto: "Return to game", $lastPassage)
437 {(set: $documentcount to true)
438 (set: $documenttext2 to "Ilse's report card (details)")
439 (if: (count: (history:), "docltext") is 0){(set: $Documents to $Documents + (a: "I"))}
440 (else:){(align: ">=<="){(print: $documenttext2)}}}
441 
442 {(if: $Documents contains "I"){(align: ">=<="){(link-goto: "<", "docl")}]
443 (if: $Documents contains any of (a: "I", "III")){(align: ">=<=")[View
Documents]}(else:){<!--Do nothing-->}
444 (if: $Documents contains "III"){(align: ">=<="){(link-goto: ">", "map")}]
445 (else:){<!--Do nothing-->}}
446
447 (link-goto: "Decipher teacher's handwriting", "docltexttrans")
448
449 (link-goto: "Open briefcase", "briefcase")
450 (link-goto: "Return to game", $lastPassage)
451 (set: $page to "III") (display: "ijournal")(set: $Ilse to true)
452
453 <div class="german">[Als ich fast 15 Jahre alt war, brach der Krieg aus. Das war für
uns sein furchtbarer Schock, zumal ^^auch^^ mein Bruder vom 1. Kriegstag an mit an die
Front musste. Von da an lebten wir in ständiger Sorge, u. jede aufkommende Freude wurde
durch den Schatten Krieg verdunkelt. Dann kam Ostern 1942, mit ihm die Nachricht, dass
mein Bruder vor Sevastopol gefallen war. Ich konnte es nicht fassen und nicht
begreifen, u. meine Mutter war völlig verzweifelt. Wir verstanden nicht mehr, dass
^^trotz^^ des Elends in der Welt noch Blumen blühen und Vögel singen konnten. Später
versuchten wir uns mit dem Gedanken zu trösten, dass meinem Bruder sicherlich viele
^^weitere^^ Leiden erspart geblieben sind.]</div>
454
455 (link: "Translate to English")[(show: ?english)]
456
457 [<div class="english">"The war broke out shortly before I turned 15. It was an awful
shock for us, because my brother was ^^also^^ pulled to the front lines on day 1. From
then on, we lived in constant terror, and all joy was darkened by the shadow of the
war. Then came Easter 1942 and with it the message that my brother had fallen in battle
out of Sevastopol. I couldn't comprehend it, and my mother was desperate. We could not
understand how ^^in spite of^^ all the misery in the world, the flowers still bloomed,
and the birds still sang. Later we tried to comfort ourselves by saying that through
death he escaped a worse fate."</div>](english|
458
459 (link-goto: "View photograph", "3")
460 (link-goto: "Return to game", $lastPassage)
461 <div class="german"><p>[5. Schulj. 1935/36: In der Leistungsbereitschaft bei
körperlichen Anstrengungen zeigt sie sich zögernd, in der Körperpflege wie auch in
allen Dingen peinlich sauber. Haltung und Auftreten sind sehr gut. Die Stellung in der
Gemeinschaft ist hervorragend; im geistigen Streben ist sie selbständig, gewissenhaft,

```

zuverlässig, aufmerksam und fleißig - im ganzen: eine hervorragende Schülerin

6. Schulj. 1936/37: Eine hervorragende Schülerin in jeder Beziehung

7.
 Schulj. 1937/38: I. N. Ist sehr gescheit, körperlich entwickelt, doch stimmlich und
 gesundheitlich zart

8. Schulj. 1938/39: I. N. entsprach im charakterlichen
 Streben vollkommen, im körperlichen Streben im allgemeinen, im geistigen Streben
 vollkommen den Anforderungen.]<zeugnis |,</p></div>

462

463 (link: "Translateto English")[(show: ?english)]

464

465 <div class="english"><p>[5th grade 1935/36: Her motivation during physical exercise is tentative; she is meticulously clean in terms of body care and everything else. Posture and demeanor are very good. Standing in the community is outstanding; she is independent in her intellectual development, consciencious, reliable, attentive, and hard working - overall: an excellent student.

 6th grade 1936/37: An excellent student in every respect.

7th grade 1937/38: I. N. is very intelligent, physically developed, but vocally and healthwise she is delicate.

8th grade 1938/39: I. N. perfectly met the requirements in terms of personal and intellectual development; she generally met the requirements in terms of physical development.](english|</p></div>

466

467 (link-goto: "View report card", "doc1")

468 (link-goto: "Open briefcase", "briefcase")

469 (link-goto: "Return to game", \$lastPassage)

470 (link: "Call Laura")[(display: "call")]

471

472 (link-goto: "Return to game", \$lastPassage)

473 Laura: Hey there, \$name, I hope things are going great over there! Maybe we can talk about what you've learned, and I can answer any of your questions.<a0|

474

475 \$name: Tell me more about your grandmother Ilse.<q1|

476 (click: ?q1)[(show: ?a1)]

477 Laura: She is the strongest, most compassionate woman I have ever known. She felt what others felt, and she carried their pain. Everyone should know about her.

478

479 She died when I was 18 years old. I knew she was frequently ill, but no one close to me had ever died, and somehow, I did not think people just disappeared like that. I can't even remember the last time I saw her. It had been a while, because I did not visit her much as a teenager. I had other things to do – chasing boys, girls, grades, my father's approval... I wasted my time instead of spending more with her.

480

481 I've been wanting to write about her for a long time.](a1|

482

483 \$name: I found out that your grandmother Ilse grew up in a small village named Rohrbach. Have you ever been there? I learned that Ilse grew up during the Nazi regime.](q2|(if: (history:) contains "imgItext") [(show: ?q2)](else:)[<!--Do nothing-->](click: ?q2)[(show: ?a2)]

484 Laura: Yes, I have! My parents took me when I was only two years old, and again when I was around twelve. It's actually quite lovely. The earliest

documentation of Rohrbach goes back to the 14th century, but it never grew much beyond a 100 residents. It's as rural as it gets in Germany these days. My Mum says it hasn't changed since they left back in the 50s; their house, the watermill, is still there, and the main street looks exactly the same. There should be some pictures of the house and the village somewhere... Maybe my Mum keeps them in the Master bedroom upstairs. Speaking of Rohrbach, I made something for you to help you get a sense of where everything's located. I sent it there a few weeks ago, I think my Mum put it in one of the drawers in the secretary desk!

485

486 [\$name: I learned that Ilse grew up during the Nazi regime.](q3 |(if: (history:) contains "img1text") [(show: ?q3)](else:)<!--Do nothing-->)(click: ?q3))(show: ?a3)]

487 [Laura: Yes, sadly, that was happening around the time of her childhood. I know that Ilse's family did not trust the Nazis, but I don't know how active they were in these remote country villages. To my understanding, the population of Rohrbach is protestant, so they would not have been a target to the Nazis.

488

489 The Nazi Party certainly had a powerful influence over the curricula at schools across the country and other institutions. If you've read Ilse's report card, you may have noticed that the educational apparatus controlled students' bodies, evaluating not only their health and fitness, but also commenting on posture and teenage girls' physical development. Ilse told me once that she felt deeply uncomfortable when a teacher touched her braids and pointed out that she looked exactly like a decent German woman should. Whatever the Nazis tried to make her believe, I don't think it ever stuck.

490

491 [\$name: Thank you, I think that's all for now.](q4 |(click: ?q4))(show: ?a4)]

492

493 [Laura: No problem, I'm happy to help and I'm glad to see you're making progress! Have a great day.](a4 |

494 (click: ?q4))(show: ?a4)]

495 (if: (history:) contains all of (a: "map", "4", "img1vtext"))[The secretary desk is empty.]

496 (else:)[The secretary desk contains the following items:]

497 (unless: (history:) contains "map") [x [[a map->map]]]

498 (unless: (history:) contains "img1vtext") [x [[a journal page->img1vtext]]]

499 (unless: (history:) contains "4") [x [[a photograph->4]]]

500

501 (link-goto: "Return to game", \$lastPassage)

502 {

503 (set: \$documentcount to true)

504 (set: \$maptext to "Dear \$name, here's a map of Germany showing all the places you need to know about")

505 (if: (count: (history:), "map") is 0)[(set: \$Documents to \$Documents + (a: "III"))]

506 (else:)[(align: "=>=<=")]((print: \$maptext))

507 }

508

509 {(if: \$Documents contains "II")[(align: "=>=<=")]((link-goto: "<", "doc1text"))}

(else-if: \$Documents contains "I")[(align: "=>=<=")]((link-goto: "<",

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"docItext"))](else:)[<!--Do nothing-->](if: $Documents contains any of (a: "I", "II",
"III"))[(align: ">=<=")[View Documents]](else:)[<!--Do nothing-->](if: $Documents
contains "IV")[(align: ">=<=")[(link-goto: ">", "docIV")]]}
510 (link: "Examine backside")[(print: $maptext)]
511 (link-goto: "Open desk", "desk")
512 (link-goto: "Return to game", $lastPassage)
513 (set: $page to "IV") (display: "ijournal")(set: $Ilse to true)
514
515 <div class="german">[/]Als ich 16 Jahre alt war, schickte ich ein Weihnachtspäckchen an
einen "unbekannten Soldate" u. erhielt aus Frankreich eine Antwort darauf. Zwischen dem
^^11 Jahre älteren^^ Empfänger u. mir entwickelte sich ein sehr lebhafter Briefwechsel.
Wir schrieben uns täglich. Im November 42 erhielt mein unbekannter Soldat nach 22
Monaten den 1. Urlaub. Wenige Tage nach seiner Ankunft verlobten wir uns.~~Ich glaube,
ich sagte "Ja," weil ich nicht "Nein" sagen konnte u. ihn nicht verletzen wollte.~~ Im
Juni 43 bekam er Heiratserlaubnis u. wir wurden kriegsgetraut. Insgesamt verbrachten
wir zweimal je 3 Wochen Urlaub zusammen. Er war der erste Mann in meinem Leben ~~u. ich
glaubte auch, ihn zu lieben.~~6 Tage vor meinem 19. Geburtstag is mein Mann gefallen.
Ich verkroch mich zuerst vor den Menschen u. brachte erst nach und nach wieder Ordnung
in meine Gefühle. //]</div>
516
517 (link: "Translate to English")[(show: ?english)]
518
519 [<div class="english">"When I was 16 years old, I sent a Christmas package to an
"unknown soldier" and received a response to that from France. This resulted in an
active epistolary correspondence between myself and the recipient of the package ^^who
was 11 years my senior.^^ We wrote each other daily. In October 42, my unknown soldier
received his first leave after 22 months at war. A few days after his arrival we got
engaged. ~~I believe I said yes because I couldn't say no, and I didn't want to hurt
him.~~ In June 43 he received the permission to get married and we were war-wedded.
Overall, we spent two three-week vacations together. He was the first man in my life
~~and I thought I loved him.~~ Six days after my 19th birthday he fell in battle. I
withdrew from everyone and everything. Only slowly did I regain control over my
emotions."</div>](english|
520
521 (link-goto: "Open desk", "desk")
522 (link-goto: "View photograph", "4")
523 (link-goto: "Return to game", $lastPassage)
524 It seems the door is locked. If only you had the key....
525
526 (link-goto: "Return to game", $lastPassage)
527 {(if: $kitchenkey is false)[The kitchen is locked.
528
529 If only you had the key...]}
530 (else:)[$center[<h2>Kitchen</h2>]]
531 The kitchen is small, but cozy. It smells like bread and
apple pie.
532
533 Ahead of you, you see a stove, cabinets, and a refrigerator, which is decorated with
some [[photos->fridge]] and [[notes->note]].

```

534
535 To your left, you see a marble-top table with cast-iron feet and two black chairs.
Behind it on the window sill, there is a Bonsai Tree and a [[wooden box->woodbox]] with
an iron lock.

536
537 The window looks out north into the backyard, which is framed by a tall privet hedge
on the east side. A pine tree and some tall plants are arranged in the flower bed in
front of the hedge.

538
539 A calendar is hanging on the wall next to the window. There is a lush [[potted
plant->plant]] on top of a stone pillar. To its right, a [[stained glass door->patio]]
leads to the east patio.

540
541 A door to the west leads you back into the [[dining room->diningroom]]

542 You cautiously pull the iron ring on the outer door of the cabinet. It opens with a
squeak. A smell of old wood emerges. You admire the glassware in the cabinet. Something
beige peaks out from underneath the top of a wine decanter - it is a [[faded
note->riddle]], written in ink.

543
544 (link-goto: "Return to game", \$lastPassage)
545 (set: \$s to (text-style: "smear"))
546 <h2>Who holds the key?</h2>
547
548 <p>Seven vessels made of \$s[glass,]
549 Two of \$s[copper], one of \$s[brass,]
550 The \$s[key] you seek, my friend, is near,
551 But \$s[thieves] find naught but trouble here.</p>
552 <p>Use your \$s[mind,] and you shall earn
553 Be \$s[greedy] and your hands shall burn:
554 Four hold \$s[acid,] two hold shards,
555 Three are kept by \$s[poison] guards.</p>
556 <p>\$s[Champagne flute] will make you bleed,
557 Likewise will the \$s[jug for mead],
558 \$s[Copper cups], like serpents vile,
559 Will rapidly \$s[erase] your smile.</p>
560 <p>\$s[Olive drink] dissolves your skin,
561 \$s[Shaken,] stirred, or taken in,
562 \$s[Winecarafe's] content takes its time
563 And slowly turns your \$s[flesh] to slime.</p>
564 <p>The \$s[big jug] carried children's drink
565 But now will make your fingers \$s[shrink]
566 \$s[Crystal dish] and \$s[brassen tray]
567 Cause you nothing but \$s[dismay.]</p>
568 <p>Choose carefully, and you shall find
569 More than what you had in mind.<p>
570
571 Which vessel would you like to search?
572
573 [[The wine decanter ->poison1]]
574 [[The crystal bowl ->acid1]]

```

575 [[The brass ashtray->acid2]]
576 [[The mead stein->shards1]]
577 [[The copper shotglass->poison2]]
578 [[The champagne glass->shards2]]
579 [[The engraved chalice->key]]
580 [[The moscow mule mug->poison3]]
581 [[The juicepitcher->acid3]]
582 [[The martini glass->acid4]]
583
584
585 (link-goto: "Return to game", $lastPassage)
586 (unless: $backpack contains "key")[(set: $kitchenkey to true)(set: $backpack to it+
(a: "a bronze key"))]
587 You found a key!
588
589 (link-goto: "Return to game", $lastPassage)
590 (text-style: "rumble")[Ouch!] You dipped your hand in bleach.
591
592 [[Give it another shot->riddle]]
593 (link-goto: "Return to game", $lastPassage)
594 (text-style: "shudder")[Ouch!] You burned your hand with sulfuric acid.
595
596 [[Give it another shot->riddle]]
597 (link-goto: "Return to game", $lastPassage)
598 (text-style: "shudder")[Ouch!] You burned your hand with sodium hydroxide!
599
600 [[Give it another shot->riddle]]
601 (link-goto: "Return to game", $lastPassage)
602 (text-style: "shudder")[Ouch!] You're bleeding. You cut your hand on ceramic shards.
603
604 [[Give it another shot->riddle]]
605 (link-goto: "Return to game", $lastPassage)
606 (text-style: "rumble")[Ouch!] You stuck your hand in Formaldehyde.
607
608 [[Give it another shot->riddle]]
609 (link-goto: "Return to game", $lastPassage)
610 (text-style: "shudder")[Ouch!] You're bleeding. You cut your hand on glass shards.
611
612 [[Give it another shot->riddle]]
613 (link-goto: "Return to game", $lastPassage)
614 (text-style: "rumble")[Ouch!] You stuck your hand into some poison ivy.
615
616 [[Give it another shot->riddle]]
617 (link-goto: "Return to game", $lastPassage)
618 (text-style: "shudder")[Ouch!] You burned your hand with hydrochloric acid.
619
620 [[Give it another shot->riddle]]
621 (link-goto: "Return to game", $lastPassage)
622 (text-style: "shudder")[Ouch!] You stuck your hand in cyanide.
623

```

```

624 [[Give it another shot->riddle]]
625 (link-goto: "Return to game", $lastPassage)
626 (if: (history:) contains all of (a: "5", "6", "7"))[The box is empty.]
627 (else:)[The secretary desk contains the following items:]
628 (unless: (history:) contains "5")x [[a photograph of a young couple->5]]]
629 (unless: (history:) contains "6")x [[a wedding photograph->6]]]
630 (unless: (history:) contains "7")x [[a photograph showing a group of young women->7]]]
631
632 (link-goto: "Return to game", $lastPassage)
633 {}
634 {
635 (set: $photocount to true)
636 (set: $currentpassage to (passage:)'s name)
637
638 (if: (count: (history:), $currentpassage) is 0)
639 [(set: $Photos to it + (a:$imagenamename))]
640 (else:)
641 [$center[(print: $imagetext1)]]
642
643 }
644 {
645 (set: $imagetext1 to "Ilse and Werner's Wedding, December 1947")
646 (set: $imagenamename to 6)
647 (display: "photoinit")
648 }
649 
650 {
651 (display: "funct1")
652 (display: "photogallery")
653 (display: "funct2")
654 }
655 (if: (count:(history:), $currentpassage) is 0)[(link: "Examine backside")[(print:
$imagetext1)]]
656 (else:)[[View journal page->imgVtext]]]
657 (link-goto: "Re-open box", "box")
658 (link-goto: "Return to game", $lastPassage)
659 {
660 (set: $imagetext1 to "Ilse and her Bridesmaids, December 1947")
661 (set: $imagenamename to 7)
662 (display: "photoinit")
663 }
664 
665 {
666 (display: "funct1")
667 (display: "photogallery")
668 (display: "funct2")
669 }
670 (if: (count:(history:), $currentpassage) is 0)[(link: "Examine backside")[(print:

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```

$imagetext1)]]
671 (else:)[[View journal page->imgVtext]]]
672 (link-goto: "Re-open box", "box")
673 (link-goto: "Return to game", $lastPassage)
674 (if: (history:) contains all of (a: "8", "9", "10"))[The cork board is empty.]
675 (else:)[The following items are pinned to the cork board:]
676 (unless: (history:) contains "8")x [[a photo of a woman with a stroller->8]]]
677 (unless: (history:) contains "9")x [[a photo of some young people celebrating->9]]]
678 (unless: (history:) contains "10")x [[a photo of a child and her parents->10]]]
679
680 (link-goto: "Return to game", $lastPassage)
681 {
682 (set: $imagetext1 to "New Year's Eve 48 with Friends")
683 (set: $imagenameto 9)
684 (display: "photoinit")
685 }
686 
687 {
688 (display: "funct1")
689 (display: "photogallery")
690 (display: "funct2")
691 }
692 (if: (count:(history:), $currentpassage) is 0)[(link: "Examine backside")[(print:
$imagetext1)]]]
693 (link-goto: "Check cork board", "cork board")
694 (link-goto: "Return to game", $lastPassage)
695 {
696 (set: $imagetext1 to "Ilse mit Kristina, Winter 1948")
697 (set: $imagenameto 8)
698 (display: "photoinit")
699 }
700 
701 {
702 (display: "funct1")
703 (display: "photogallery")
704 (display: "funct2")
705 }
706 (if: (count:(history:), $currentpassage) is 0)[(link: "Examine backside")[(print:
$imagetext1)]]]
707 [[View journal page->imgVIIItext]]]
708 (link-goto: "Check cork board", "cork board")
709 (link-goto: "Return to game", $lastPassage)
710 (set: $page to "VI") (display: "ijournal")(set: $Ilse to true)(set: $Werner to
true)(set: $Manfred to true)(set: $Kristina to true)
711
712 [<div class="german">//Trotz großer wirtsch. Schwierigkeiten ~~und Spannungen mit
beiden Müttern~~ folgten drei glückliche Jahre. Im Sept. 48 ~~Geburt d. Tocht~~ ^^kam
meine Tochter zur Welt.^~ Mein Mann schulte v. Eisenwarenverkäufer auf Lebensmittellk.

```

um und übernimmtnahm 1950 eine Konsumverkaufsstelle. 1951 Geburt d. wurde unser Sohn geboren. Mein Mann fängt fing an zu trinken. 1953 wird mein Mann arbeitslos verlor verliert er seine Arbeitsstelle. Ab Jan. 54 arbeitete ich im Konsum als Aushilfe, später als Verkäuferin.//</div>

713

714 (link: "Translateto English")[(show: ?english)]

715

716 [//<div class="english">//Despite great econ. problems and tensions between our mothers three happy years followed. In Sept. 48 birth of daughter My daughter was born. My husband re-trained f. hardware dealer to retail salesm. and took over a Konsum branch. 1951 birth of our son was born. My husband starts started drinking. 1953 my husband becomes unemployed he lost his job. From Jan. 1954 on, I worked at the Konsum, first as a temp, later as a cashier. //</div>](english|

717

718 (link-goto: "Check cork board", "cork board")

719 (link-goto: "View photograph", "8")

720 (link-goto: "Return to game", \$lastPassage)

721 {

722 (set: \$imagetext1 to "Werner, Kristina und Ilse, ca. 1950")

723 (set: \$imagenameto 10)

724 (display: "photoinit")

725 }

726

727 {

728 (display: "funct1")

729 (display: "photogallery")

730 (display: "funct2")

731 }

732 (if: (count:(history:),\$currentpassage) is 0)[(link: "Examine backside")[(print: \$imagetext1)]]

733 [[View journal page->imgXtext]]

734 (link-goto: "Check cork board", "cork board")

735 (link-goto: "Return to game", \$lastPassage)

736 (set: \$page to "I") (display: "kjournal") (set: \$Kristina to true) (set: \$Ilse to true)

737

738 [<div class="german">//German text will be transcribed soon//</div>]

739

740 (link: "Translateto English")[(show: ?english)]

741

742 [<div class="english">//I was born September 14, 1948, in Rohrbach near Leipzig. I was a home birth and they had to get me with the prongs. I have very pleasant memories of my childhood in the East. In the early years, before my brother Manfred was born, I played on the farm yard or in the fruit and vegetable garden behind the house. Around that time my maternal grandmother was still alive, and she spent a good amount of time with me. I watched her while she was plucking a goose or a chicken or making Sauerkraut in a wooden barrel. But I was also fine just playing by myself. One time, when I was two years old, I was playing in the hallway when my ball fell into the water barrel. I tried to get it out, but I got stuck head-first in the barrel. My mother, who was busy

in the kitchen, came to check on me because she could not hear me sing anymore. She pulled me out and knocked the water out of my lungs.//</div>](english|

```

743
744 (link-goto: "View photograph", "10")
745 (link-goto: "Check cork board", "cork board")
746 (link-goto: "Return to game", $lastPassage)
747 $center[<h2>Ilse's Journal</h2>]
748 $center[<h4>Page $page</h4>]
749 {
750 $center[(if: $Photos contains any of (find: _a where _a > $imasename,...$Photos))[(set:
$a to 1st of (find: _a where _a > $imasename, ...$Photos))[(text: $a)](hide| (link-goto:
">", "$a"))]]
751 }
752 {
753 (if: $Photos contains any of (find: _c where _c is not
$imasename,...$Photos))[$center[Photo Gallery]]
754 }
755 {
756 $center[(if: $Photos contains any of (find: _b where _b < $imasename, ...$Photos))
757 [(set: $b to last of (find: _b where _b < $imasename, ...$Photos))[(text:
$b)](hide| (link-goto: "<", "$b"))]]
758 }
759 {
760 (set: $imagetext1 to "Ilse und Manfred")
761 (set: $imasename to 11)
762 (display: "photoinit")
763 }
764 
765 {
766 (display: "funct1")
767 (display: "photogallery")
768 (display: "funct2")
769 }
770 (if: (count:(history:),$currentpassage) is 0)[(link: "Examine backside")[(print:
$imagetext1)]]
771 [[View journal page->imgXltext]]
772 (link-goto: "Check fridge", "fridge")
773 (link-goto: "Return to game", $lastPassage)
774 The note reads:
775 <ul class="shopping">
776 <li>Gurke</li>
777 <li>Tomaten</li>
778 <li>Suppengrün</li>
779 <li>Joghurt</li>
780 <li>Bananen</li>
781 <li>Backmischung</li>
782 <li>Staubsaugerbeutel</li>
783 </ul>
784 Yup. That's a shopping list. Totally unrelated to your mission.

```

785
786 (live:2s)[.](live:2.5s)[.](live:3s)[.](live:3.5s)[OR](live:4s)[IS
](live:4.5s)[IT](live:5s)[?](live:5.5s)[?](live:6s)[?
787
788 (link-goto: "Return to game", \$lastPassage)
789 (if: \$boxkey is false)[The box is locked.
790
791 If only you had the key...]
792 (else:)[(if: (history:) contains all of (a: "15", "14"))[(if: \$basementkey is
false)[The box contains a small package]](else-if: \$basementkey is true)[The box is
empty.]]
793 (else:)[The following items are inside the wooden box:]
794 (unless: (history:) contains "")[x [[a photo of a girl with a school cone->14]]]
795 (unless: (history:) contains "")[x [[a photo of a street->15]]]
796 (unless: (history:) contains "imgX") [x (link: "a small package") [(alert: "Tadaaa! You
found a key.")(set: \$backpack to it + (a: "a black key"))(set: \$basementkey to true)]]]
797
798 (link-goto: "Return to game", \$lastPassage)
799 Something about this plant draws your attention.
800
801 Maybe you should...
802
803 (link: "...dig around in the potting soil.")[Okay, messy, but that's what soap is for.
Let's take a look... (live:1s)[Nothing yet...](live:2s)[still
nothing...](live:3s)[Yeah, there's nothing here.]]
804 (link: "...lift up the plant.")[There's nothing under the pot.]
805 (link: "...check between plant's leaves.")[alert: "Tadaaa! You found a key.")(set:
\$boxkey to true)(set: \$backpack to it + (a: "a bronze key"))]
806 (link-goto: "Return to game", \$lastPassage)
807 The door is locked.
808
809 If only you had the key...
810
811 (link-goto: "Return to game", \$lastPassage)
812 \$center[<h2>Kristina's Journal</h2>]
813 \$center[<h4>Page \$page</h4>]
814 (set: \$page to "II") (display: "kjournal")(set: \$Kristina to true)(set: \$Manfred to true)
815
816 [<div class="german">//German text will be transcribed soon//</div>]
817
818 (link: "Translate to English")[(show: ?english)]
819
820 [<div class="english">//When my brother was born in November 1951, I was glad at first,
because now I was allowed to go play with the other kids in the village. My mother had
to care for the baby, and it was a lot of work back then; for example, you had to boil
the cloth diapers. My mother was more than busy with all the work around the house and
in the garden, and with two children. There were no refrigerators, no washing machines,
no dryers, no dishwashers. Vegetables and fruit came from the garden, and there was
only one small general store, where you could buy what was necessary. We picked up milk
in a jug from the milk man, and when a pig was slaughtered in the village, everybody

```

got some meat.
821 //</div>](english|
822
823 (link-goto: "View photograph", "11")
824 (link-goto: "Check fridge", "fridge")
825 (link-goto: "Return to game", $lastPassage)
826 (if: (history:) contains all of (a: "11", "12", "13"))[You've taken all the photos from
the fridge.]
827 (else:)[The following items are pinned to the fridge:]
828 (unless: (history:) contains "11")[x [[a photo of a mother and a baby->11]]]
829 (unless: (history:) contains "12")[x [[some landscape photos->12]]]
830 (unless: (history:) contains "13")[x [[some photos of a family->13]]]
831
832 (link-goto: "Return to game", $lastPassage)
833 {
834 (set: $imagetext1 to "Rohrbach, 1940s")
835 (set: $imagenameto 11)
836 (display: "photoinit")
837 }
838 
839 {
840 (display: "funct1")
841 (display: "photogallery")
842 (display: "funct2")
843 }
844 (if: (count:(history:),$currentpassage) is 0)[(link: "Examine backside")][(print:
$imagetext1)]
845 [[View journal page->imgXIItext]]
846 (link-goto: "Check fridge", "fridge")
847 (link-goto: "Return to game", $lastPassage)
848 {
849 (set: $imagetext1 to "Die Familie, ca. 1950-1952")
850 (set: $imagenameto 13)
851 (display: "photoinit")
852 }
853 
854 {
855 (display: "funct1")
856 (display: "photogallery")
857 (display: "funct2")
858 }
859 (if: (count:(history:),$currentpassage) is 0)[(link: "Examine backside")][(print:
$imagetext1)]
860 [[View journal page->imgXIIItext]]
861 (link-goto: "Check fridge", "fridge")
862 (link-goto: "Return to game", $lastPassage)
863 (set: $page to "III") (display: "kjournal")(set: $Kristina to true)
864

```

865 [<div class="german">//German text will be transcribed soon//</div>
866
867 (link: "Translate to English")[(show: ?english)]
868
869 [<div class="english">//For us kids, our little village of about 180 residents was
paradise: the mill pond in front of the house was great for swimming in the summer and
iceskating in winter (but I didn't know how to do either one of those things.) The
Gosel creek, the meadows, and the forests were amazing places to play. We were a group
of kids of different ages, I think I was the youngest at age 4, while the oldest ones
were about 9 years old. That is, we mostly played together during summer break; usually
we were outside, in the woods, or behind the church yard, and while it was raining we
found shelter in some attic. When Russians drove through the village in trucks, we
would hide quickly, as our parents had taught us. One time, a lightning hit the ground
right in front of us in the forest, and an enormous cloud of dust emerged. All kids ran
away as fast as they could. Being the youngest one, I couldn't keep up – and then, I
stepped on a snake – a viper or a slowworm – and it hissed at me. Panicked, I ran
home.//</div>](english|
870
871 (link-goto: "View photograph", "12")
872 (link-goto: "Check fridge", "fridge")
873 (link-goto: "Return to game", \$lastPassage)
874 (set: \$page to "IV") (display: "kjournal")(set: \$Kristina to true)(set: \$IIs set to
true)(set: \$Werner to true)(set: \$Manfred to true)
875
876 [<div class="german">//German text will be transcribed soon//</div>
877
878 (link: "Translate to English")[(show: ?english)]
879
880 [<div class="english">//Later, I had to watch my little brother and bring him along
everywhere, which, as a kid, I didn't like at all. My mother had taken a job as a shop
assistant (1953?). Back then, I didn't know that my mother had to earn the money for
our sustenance because my father had made debts and couldn't handle money. I also
didn't know that even then, he had a problem with alcohol. Near our house was a tavern,
Ronniger. My father must have stopped by there frequently. I do remember one time, it
was Sunday and my mother had made his favorite dish, roulades with potato dumplings,
for lunch, but my father didn't come home. So, mother threw the dumplings out of the
window. I was furious. I would have eaten those dumplings!
When my mother began to
work and summer break was over, she put us into a hand cart and pulled us to her work
place in Oelzschau, a village in Espenhain parish, in Leipzig county. There, we had to
stay in the backroom all day, until 7 p.m. This was no solution for the long run, so my
mother took us to kindergarten in Belgershain. In the morning at 6 am we left with the
hand cart; kindergarten opened at 7 am. We were picked up at 7 pm. The midday nap was
hell for me. We had to sleep on cots for two hours, and when you tossed and turned too
much, because you couldn't sleep, they jabbed your legs. But the food was good. There
was breakfast, lunch, and cake in the afternoon.//</div>](english|
881
882 (link-goto: "View photograph", "13")
883 (link-goto: "Check fridge", "fridge")
884 (link-goto: "Return to game", \$lastPassage)
885 {

```

886 (set: $imagetext1 to "Kristina's 1. Schultag")
887 (set: $imagenameto 14)
888 (display: "photoinit")
889 }
890 
891 {
892 (display: "funct1")
893 (display: "photogallery")
894 (display: "funct2")
895 }
896 (if: (count:(history:),$currentpassage) is 0)[(link: "Examine backside")[(print:
$imagetext1)]]
897 [[View journal page->imgXIVtext]]
898 (link-goto: "Check box", "woodbox")
899 (link-goto: "Return to game", $lastPassage)
900 {
901 (set: $imagetext1 to "Ilse, ca. Winter 1956")
902 (set: $imagenameto 16)
903 (display: "photoinit")
904 }
905 
906 {
907 (display: "funct1")
908 (display: "photogallery")
909 (display: "funct2")
910 }
911 (if: (count:(history:),$currentpassage) is 0)[(link: "Examine backside")[(print:
$imagetext1)]]
912 [[View journal page->imgXVtext]]
913 (link-goto: "Check box", "woodbox")
914 (link-goto: "Return to game", $lastPassage)
915 (set: $page to "V") (display: "kjournal")(set: $Kristina to true)
916
917 [<div class="german">//German text will be transcribed soon//</div>]
918
919 (link: "Translate to English")[(show: ?english)]
920
921 [<div class="english">//In September 1955 I finally started going to school at
Belgershain elementary. The way to Belgershain was too far to walk, so I rode to school
on a rattly old bicycle which constantly lost its chain. In the winter, our neighbors
from the village took us in their horse-drawn sleigh, because their daughter Martina
was in my class. At school, we had to write pages and pages of the alphabet into our
notebooks. I did a sloppy job, because I already knew all the letters. Also, the first
graders were taught in the same room as the third graders, on the other side of the
room. Their classes were much more interesting to me. At the end of October, we had
"potato break," and all students had to collect potato beetles in large
glasses.//</div>](english|

```

922
923 (link-goto: "View photograph", "14")
924 (link-goto: "Check box", "woodbox")
925 (link-goto: "Return to game", \$lastPassage)
926 (set: \$page to "VII") (display: "ijournal")(set: \$Ilse to true)(set: \$Werner to true)
927
928 [<div class="german">//German text will be transcribed soon//</div>]
929
930 (link: "Translate to English")[(show: ?english)]
931
932 [<div class="english">//In December 1955 my husband fled to the West. I filed for divorce. My husband pled with me in letters, begging me to join him with the kids. He worked in mining in Dortmund and visited my aunt in Witten, on whom he left a good impression. Our mail was being screened and they kept my ID. I had to report to the police station every four weeks. The kids missed their father very much. I was full of doubt and desire. Carefully, I prepared our escape.//</div>](english|
933
934 (link-goto: "View photograph", "16")
935 (link-goto: "Check box", "woodbox")
936 (link-goto: "Return to game", \$lastPassage)
937 (set: \$page to "V") (display: "kjournal")(set: \$Kristina to true)(set: \$Werner to true)(set: \$Ilse to true)
938
939 [<div class="german">//German text will be transcribed soon//</div>]
940
941 (link: "Translate to English")[(show: ?english)]
942
943 [<div class="english">//In December of 1955 my father was suddenly gone, and we had to move to an aunt a few houses down. She lived above the little general store on the corner. I didn't know that my father had brought financial hardship upon our family and that my mother had to sell everything. Now my mother left the house even earlier in the morning (she now worked at a place that was even further out). Aunt Frida looked after us. In the morning, she made me eat two large sandwiches. She also gave me two large sandwiches for school. But school also had lunch. When they had lentil soup or pea soup, which I hated, I was always late for class, because they only let you leave after you had finished your entire plate. On the way home, I secretly threw out my two sandwiches because at aunt Frieda's, I had to eat lunch again. After that, I was supposed to have another afternoon nap. One time I had snuck out of the window in winter to go slide on the frozen pond with the other kids; subsequently, aunt Frieda locked the door to my room.

944 //</div>](english|
945
946 (link-goto: "View photograph", "15")
947 (link-goto: "Check box", "woodbox")
948 (link-goto: "Return to game", \$lastPassage)
949 {
950 (set: \$imagetext1 to "Rohrbach, 1950s")
951 (set: \$imagenameto 15)
952 (display: "photoinit")
953 }


```

954 
955 {
956 (display: "funct1")
957 (display: "photogallery")
958 (display: "funct2")
959 }
960 (if: (count:(history:),$currentpassage) is 0)[(link: "Examine backside")[(print:
$imagetext1)]]
961 [(View journal page->imgXVtext)]
962 (link-goto: "Check box", "woodbox")
963 (link-goto: "Return to game", $lastPassage)
964 {$center[<h2>Living Room</h2>]}
965 
966
967 The living room looks out on the road from which you entered the house. There are some
leather couches on the east, south, and west side of the room. Some modern art is
hanging on the east and west walls.
968
969 To the right of the window, you notice an antique [[mechanical clock.]] The pendulum is
not moving.
970
971 A glass table in the middle of the room bears a stack of [[letters->letter1]].
972
973 On the east wall, two large shelves, framed by a welded chrome structure, carry books
on top of solid wooden planks. There are some photo albums on the top shelf; they are
arranged chronologically. Most of them contain recent pictures; the first one reads:
[[late 50s]].
974
975 A flat screen is installed on the bottom shelf on the left. Beneath it, there is a
solid wooden [[drawer]].
976
977 The [[dining room->diningroom]] is behind you.
978 What a beautiful and mysterious old clock. Maybe, if you had some tools, you could wind
it up...
979
980
981 (link-goto: "Return to game", $lastPassage)
982 [<div class="german">//German text will be transcribed soon//</div>]
983
984 (link: "Translate to English")[(show: ?english)]
985
986 [<div class="english">//Dear Werner!<br><br>
987 Through detours I received your letter from 1/22/56. Cordial thanks. I did not respond
to your first letter, because I had to process things for myself first. I also did not
want the police coming after me. The feds came straight to my door the next day and
looked for your passport. Because I was missing the receipt for the deposit from 12/12,
they are having me come in for a follow up.
988 <br><br>

```

989 I am happy that you found work so quickly and I hope that you finally have enough energy and willpower to not immediately fail again. Show me for once that you can be a man, who not only starts a family, but can also provide for it. And more than anything: stay away from the alcohol! You know that this devil destroyed our happiness. Your words about a new happy family life are so beautiful, almost too good to be true. I have always wanted to believe you and I have been disappointed time and again. What would I gain from giving up everything here and then being alone over there one day with the children, with nothing left? Examine your heart and conscience.

990

991 Kisses and greetings from Ilse, Kristina and Manfred

992 //</div>](english|

993

994 (link-goto: "Return to game", \$lastPassage)

995 This area is currently under construction.

996

997 (link-goto: "Return to game", \$lastPassage)

998 (if: (history:) contains all of (a: "16", "17"))[The drawer is empty.]

999 (else:)[The following items are inside the drawer:]

1000 (unless: (history:) contains "")[x [[a photo of a young woman in a winter coat ->16]]]

1001 (unless: (history:) contains "")[x [[a photo of a street->17]]]

1002

1003 (link-goto: "Return to game", \$lastPassage)

1004 {

1005 (set: \$imagetext1 to "Ilse, ca. Winter 1956")

1006 (set: \$imagenameto 17)

1007 (display: "photoinit")

1008 }

1009

1010 {

1011 (display: "funct1")

1012 (display: "photogallery")

1013 (display: "funct2")

1014 }

1015 (if: (count:(history:),\$currentpassage) is 0)[(link: "Examine backside")[(print: \$imagetext1)]]

1016 [[View journal page->imgXVIItext]]

1017 (link-goto: "Check drawer", "drawer")

1018 (link-goto: "Return to game", \$lastPassage)

1019 (set: \$page to "VI") (display: "kjournal")(set: \$Kristina to true)(set: \$Werner to true)

1020

1021 [<div class="german">//German text will be transcribed soon//</div>]

1022

1023 (link: "Translate to English")[(show: ?english)]

1024

1025 [<div class="english">//I remember Christmas 1955 because I asked for a baby doll, but I didn't get one (my friend Karin had one; we wanted to play mother and child). My mother didn't want to spend any money because we didn't have much, and maybe she already planned on leaving the village, but I don't know for sure. My father, however, sent us packages for Christmas with oranges, chocolate, and peanuts. Apart from those

exotic things which my father sent, we did have plenty to eat. I remember the food as being nutritious and versatile. With our own garden, we always had fresh vegetables and fruits. We preserved the fruit, pickled the cucumbers, and cooked applesauce. There were food stamps (for rationing), but they were enough for your day-to-day life. Only the butter and, even worse, the margarine, was nasty, and the East chocolate tasted awful. But I always gave away my Easter and Christmas candy to my friends. I'm mentioning this because later in the West there were some years when vitamins and healthy nutrition were sparse.

1026

1027 (link-goto: "View photograph", "17")

1028 (link-goto: "Check drawer", "drawer")

1029 (link-goto: "Return to game", \$lastPassage)

1030 (set: \$character to \$WernerData)

1031 (display: "profile")

1032 (set: \$character to \$ManfredData)

1033 (display: "profile")

1034 (print: \$character's firstname + " " + \$character's lastname)

1035 Born (print: \$character's yearborn)

1036 (print: \$character's Relation)

1037 (print: \$character's lifestat)

1038

1039 (link-goto: "Return", "familyfiles")

LIST OF REFERENCES

- Adam, Alison. "Hacking into Hacking: Gender and the Hacker Phenomenon." Adam, Alison. *Gender, Ethics and Information Technology*. London, UK: Palgrave MacMillan, 2005. 128-146. Print.
- Amnesty International. *"This Is What We Die For:" Human Rights Abuses in the Republic of Congo Power the Global Trade in Cobalt*. London, UK: Amnesty International, 2016. PDF Document.
- Anthropy, Anna. "Queers in Love at the End of the World." itch.io, 2013. Twine Game. <w.itch.io/end-of-the-world>.
- . *Rise of the Videogame Zinesters: How Freaks, Normals, Amateurs, Artists, Dreamers, Drop-outs, Queers, Housewives, and People Like You Are Taking Back an Art Form*. New York, NY: Seven Stories Press, 2012. Print.
- . "The Hunt for the Gay Planet." *Electronic Literature Collection, Volume Three*. Ed. Stephanie Boluk, et al. Electronic Literature Organization, 2016.
- Attebury, Ramirose Ilene. "Perceptions of a Profession: Librarians and Stereotypes in Online Videos." *Library Philosophy and Practice* (2010). Online Article.
- Baker, Rani. "Never Go To Work." itch.io, 2015. Twine Game. <destroyed4com4t.itch.io/never-go-to-work>.
- Barthes, Roland. *S/Z*. Malden, MA: Blackwell, 2002. Print.
- Beiguelman, Giselle. *Code Movie 1*. Electronic Literature Organization. *Electronic Literature Collection Vol. 1*. 2006. Code Work. <collection.eliterature.org/1/works/beiguelman__code_movie_1.html>.

- Bennet, Brian and Michael A. Memoli. "The White House Has Found Ways to End Protection for 'Dreamers' while Shielding Trump from Blowback." *LA Times* 16 February 2017. <www.latimes.com/politics/la-na-pol-trump-daca-20170216-story.html>.
- Berners-Lee, Tim. "Hypertext Terms." n.d. *info.cern*. Online Document. <info.cern.ch/hypertext/WWW/Terms.html>.
- Bernstein, Mark. *Interview with Mark Bernstein* Judy Malloy. 2010. Online Article. <people.well.com/user/jmalloy/elit/bernstein.html>.
- Bogost, Ian. *Persuasive Games*. Atlanta, GA, 2018. <persuasivegames.com/>.
- Bolter, David Jay. *Writing Space. Computers, Hypertext, and the Remediation of Print*. New York, NY: Routledge, 2001. Print.
- Boluk, Stephanie, et al., *Electronic Literature Collection*. Cambridge, MA, 2016. Online Anthology.
- Braganca, Luiza C., Rosaline R. Mota and Eduardo P.C. Fantini. "Twine Game Narrative and discussion about LGBTQ representation." *Proceedings of SBGames 2016*. São Paulo, Brazil: Brazilian Computer Society, 2016. 937-946.
- Brown Jr., James J. . "From Friday to Sunday: the Hacker Ethic and Shifting Notions of Labour, Leisure and Intellectual Property." *Leisure Studies* (2007): 395-409.
- Castells, Manuel. *Communication Power*. Oxford, UK: Oxford University Press, 2013. Print.
- . *The Rise of Network Society*. West Sussex, UK: Wiley Blackwell, 2010. Print.
- Cayley, John. *Programmatology*. 2018. Website. <programmatology.shadoof.net/>.

- . "Writing on Complex Surfaces." *Dichtung Digital* 35.2 (2005). Online Article.
<www.dichtung-digital.de/2005/2/Cayley/index.htm>.
- Chachra, Debbie. "Beyond Making." *Making Things and Drawing Boundaries: Experiments in the Digital Humanities*. Ed. Jentrey Sayers. Minneapolis, MN: University of Minnesota Press, 2017. 319-321. Print.
- Coleman, Gabriella E. and Alex Golub. "Hacker Practice: Moral Genres and the Cultural Articulation of Liberalism." *Anthropological Theory* 8.3 (2008): 255–277.
- Corcoran, Leaf, et al. "Community Rules." 2019. *itch.io*. Online Article. <itch.io>.
- Davis, Jeffrey. "US 'Zero-Tolerance' Immigration Policy Still Violating Fundamental Human Rights Laws." *The Conversation* 27 June 2018. Online Article.
<theconversation.com/us-zero-tolerance-immigration-policy-still-violating-fundamental-human-rights-laws-98615>.
- Drucker, Johanna. "Projects." n.d. *johannadrucker.net*. Website.
<www.johannadrucker.net/projects.html>.
- Eastgate Systems, Inc. *Storyspace*. 2019. Interactive Fiction Software.
<www.eastgate.com/storyspace/index.html>.
- Eliot, Andrew J. and Henk Aarts. "Perception of the Color Red Enhances the Force and Velocity of Motor Output." *Emotion* 11.2 (2011): 445-449. Online Article.
- Eliot, Andrew J., et al. "Color and Psychological Functioning: The Effect of Red on Performance Attainment." *Journal of Experimental Psychology: General* 136.1 (2007): 154-168. Online Article.

Emerson, Lori. *Reading Writing Interfaces. From the Digital to the Bookbound.*

Minneapolis, MN: University of Minnesota Press, 2014. Print.

Flanagan, Mary and Helen Nissenbaum. *Values at Play in Digital Games.* Cambridge,

MA: The MIT Press, 2014. Print.

Friedhoff, Jane. "Untangling Twine: A Platform Study." *Proceedings of the 2013 DiGRA*

International Conference: DeFragging Game Studies. Atlanta, GA: Digital

Games Research Association, 2013. 1-10. Online. <[www.digra.org/wp-](http://www.digra.org/wp-content/uploads/digital-library/paper_67.compressed.pdf)

[content/uploads/digital-library/paper_67.compressed.pdf](http://www.digra.org/wp-content/uploads/digital-library/paper_67.compressed.pdf)>.

Gonzales, Roberto G., Carola Suárez-Orozco and Maria Cecilia Dedios-Sanguinetti. "No

Place to Belong: Contextualizing Concepts of Mental Health Among

Undocumented Immigrant Youth in the United States." *American Behavioral*

Scientist 57.8 (2013): 1174-1199. Online.

Harvey, Alison. "Twine's Revolution: Democratization, Depoliticization, and the

Queering of Game Design." *Game 3* (2014): 95-107. Online.

<www.gamejournal.it/3_harvey/>.

Hayles, Katherine N. "Deeper into the Machine: Learning to Speak Digital." *Computers*

and Composition 19 (2002): 371-386. Print.

—. *Electronic Literature: New Horizons for the Literary.* Notre Dame, IN: University of

Notre Dame Press, 2016. Print.

Hayles, Katherine N. "Electronic Literature: What Is It?" *Doing Digital Humanities:*

Practice, Training, Research. Ed. Constance Crompton, Richard J. Lane and Ray

Siemens. New York, NY: Routledge, 2016. 197-226.

- . "Print Is Flat, Code Is Deep: The Importance of Media-Specific Analysis." *Poetics Today* 25.1 (2004): 67-90. Print.
- Hertz, Garnetz. "What Is Critical Making?" *Current* 8 (2016): n.p. Online Article. current.ecuad.ca/what-is-critical-making.
- Himanen, Pekka. *The Hacker Ethic and the Spirit of the Information Age*. New York, NY: Random House, 2001. Print.
- Himanen, Pekka and Manuel Castells, *Reconceptualizing Development in the Global Information Age*. Oxford, UK: Oxford University Press, 2014. Print.
- Himanen, Pekka. *The Hacker Ethic. A Radical Approach to the Philosophy of Business*. New York, NY: Random House, 2001. Print.
- hooks, bell. *Teaching to Transgress. Education as the Practice of Freedom*. New York, NY: Routledge, 1994. Print.
- Horkheimer, Max. "Traditional and Critical Theory." Horkheimer, Max. *Critical Theory: Selected Essays*. New York, NY: The Continuum Publishing Company, 2002. 188-243. Print.
- Human Rights Watch. "Follow the Thread: Human Rights in Supply Chains and the Responsibility of Jewelry Companies." 2017. PDF Document.
- . *The Hidden Cost of Jewelry. Human Rights in Supply Chains and the Responsibility of Jewelry Companies*. Human Rights Watch, 2018. PDF Document.
- Hunter, John, Katherine Faull and Diane Jakacki. "Reifying the Maker as Humanist." *Making Things and Drawing Boundaries: Experiments in the Digital Humanities*.

- Ed. Jentrey Sayers. Minneapolis, MN: University of Minnesota Press, 2017. 130-138. Print.
- Jordan, Tim and Paul Taylor. *Hacktivism and Cyberwars: Rebels with a Cause?* New York, NY: Routledge, 2004. Print.
- Joyce, Michael. "afternoon, a story." *Postmodern American Fiction. A Norton Anthology*. Ed. Paula Geyh, Fred G. Leebron and Andrew Levy. 1997.
- Kim, Silvia, et al. *Eyeris*. Berkeley Arts & Design. *Design Made at Berkeley*. Berkeley, CA, 2018. Performative Wearable.
- Kirschenbaum, Matthew. "ELO and the Electric Light Orchestra: Electronic Literature Lessons from Prog Rock." Porto, Portugal: Electronic Literature Organization Conference, 22 July 2017. Keynote Speech.
- . *Mechanisms. New Media and the Forensic Imagination*. Cambridge, MA: The MIT Press, 2008. Print.
- . *Track Changes: A Literary History of Word Processing*. Cambridge, MA: Harvard University Press, 2016. Print.
- Klimas, Chris. "The Economy of Twine." 3 March 2014. *chrisklimas.com*. Blog Entry. <chrisklimas.com/the-economy-of-twine/>.
- . *twinery.org*. 2009. Website. <twinery.org/>.
- Kopas, Merritt, ed. *Videogames for Humans*. Instar Books, 2015.
- Laing, Dave. "Interpreting Punk Rock." *Marxism Today* (1978): 123-128. Print.

- Landow, George P. and Paul Delaney. "Hypertext, Hypermedia and Literary Studies: The State of the Art." *Hypermedia and Literary Studies*. Ed. George W. Landow and Paul Delaney. Cambridge, MA: MIT Press, 1995. 3-52. Print.
- Landow, George P. *Hypertext 3.0*. Baltimore, ML: John Hopkins University Press, 2006. Print.
- Latour, Bruno. *Reassembling the Social. An Introduction to Actor-Network-Theory*. London, UK: Oxford University Press, 2005. Print.
- Lessig, Lawrence. *Free Culture. How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity*. New York, NY: Penguin Press, 2004. PDF File. <free-culture.cc/freeculture.pdf>.
- Manan, Ahmed, et al. *Torn Apart / Seperados*. 2018. Interactive Map. <xpmethod.plaintext.in/torn-apart/volume/2/index>.
- Mandiberg, Stephen. "Translation and/as Interface." *The Journal of the Canadian Game Studies Association* 6.10 (2012): 53-70. Online Article. <journals.sfu.ca/loading/index.php/loading/article/view/114/128>.
- Mann, Steve. "Maktivism: Authentic Making for Technology in the Service of Humanity." *DIY Citizenship: Critical Making and Social Media*. Cambridge, MA: The MIT Press, 2014. 29-52. Print.
- Marino, Mark C. "Critical Code Studies." *electronic book review* (2006). Online Article. <electronicbookreview.com/essay/critical-code-studies/>.
- Marx, Karl. "Estranged Labor." Marx, Karl. *Economic and Philosophical Manuscripts of 1844*. St. Paul, MN: Wilder Publications, 2018. Print.

- me too*. 2019. Website. <metoomvmt.org/>.
- Memmott, Talan. "Lexia to Perplexia." *Electronic Literature Collection Vol. 1*. Ed. Katherine N. Hayles, et al. College Park, MD, 2006. Electronic Fiction.
- Milberry, Kate. "(Re)making the Internet: Free Software and the Social Factory Hack." *DIY Citizenship: Critical Making and Social Media*. Ed. Matt Ratto and Megan Boler. Cambridge, MA: The MIT Press, 2014. 53-64. Print.
- Millar, Laura. *Archives: Principles and Practices*. London, UK: Facet Publishing, 2010. Print.
- Montfort, Nick. *Taroko Gorge*. Generative Poem. <nickm.com/taroko_gorge/>.
- MorganSea. "Zine Fair Lady." itch.io, 2015. Twine Game. <morgansea.itch.io/zine-fair-lady>.
- Moulthrop, Stuart and Dene Grigar. *Pathfinders*. Vancouver, WA: Nouspace Publications, 2015. Multimedia Book.
- . *Traversals. The Use of Preservation for Early Electronic Writing*. Cambridge, MA: MIT Press, 2017. Print.
- Moulthrop, Stuart. "Intimate Mechanics: One Model of Electronic Literature." *Hyperrhiz* 17 (2017): np. Online. <hypermhiz.io/hyperhiz17/essays/3-moulthrop-intimate-mechanics.html>.
- Mulvey, Laura. "Visual Pleasure and Narrative Cinema." *Theory and Criticism: Introductory Readings*. Ed. Braudy, Leo and Marshall Cohen. New York, NY: Oxford University Press, 1999. 833-844. Print.

- Murzyn, Eva. "Do We Only Dream in Colour? A Comparison of Reported Dream Colour in Younger and Older Adults with Different Experiences of Black and White Media." *Consciousness and Cognition* 17.4 (2008): 1228-1237. Online Article.
- Nelson, Jason. "game, game, game and again game." *Electronic Literature Collection Volume 2*. Ed. Laura Borràs, et al. Cambridge, MA: Electronic Literature Organization, 2011. Digital Game.
<http://collection.eliterature.org/2/works/nelson_game.html>.
- Nelson, Theodor H. . *Literary Machines: The Report on, and of, Project Xanadu Concerning Word Processing, Electronic Publishing, Hypertext, Thinkertoys, Tomorrow's Intellectual Revolution, and Certain Other Topics Including Knowledge, Education and Freedom*. Sausalito, CA: Mindful Press, 1993. Print.
- Nelson, Theodor H. *Computer Lib / Dream Machines*. Self-Published, 1974. Print.
- Organisation for Economic Co-operation and Development (OECD). "PISA 2015 Results in Focus." 2015. PDF File. <www.oecd.org/pisa/pisa-2015-results-in-focus.pdf>.
- Pagowski, Nicole and Miriam Rigby. *The Librarian Stereotype: Deconstructing Perceptions and Presentations of Information Work*. Chicago, IL: Association of College and Research Libraries, 2014. eBook.
- Patler, Caitlin and Jorge A. Cabrera. *From Undocumented to DACAmented. Impacts of the Deferred Action for Childhood Arrivals (DACA) Program Three Years Following its Announcement*. Los Angeles, CA: Institute for Research on Labor and Employment, 2015.

Permanent Culture Now. *Introduction to Activism*. n.d. Online Article.

<www.permanentculturenow.com/what-is-activism/>.

Porpentine Charity Heartscape. *Slimedaughter*. 2019. Website. <slimedaughter.com/>.

Porpentine. "With Those We Love Alive." *Electronic Literature Collection Vol. 3*. Ed.

Stephanie Boluk, et al. Electronic Literature Organization, 2016. Twine Game.

Quinn, Zoe. "Info Section." 2013. *Depression Quest*.

<<http://www.depressionquest.com/#info-section>>.

Quinn, Zoe, Patrick Lindsey and Isaac Schankler. *Depression Quest*. 2013. Twine Game.

Ramones. "Now I Wanna Sniff Some Glue." *Now I Wanna Sniff Some Glue*. By Dee Dee

Ramone. Sire/ABC, 1976. Vinyl Record.

Ratto, Matt and Megan Boler, *DIY Citizenship. Critical Making and Social Media*.

Cambridge, MA: MIT Press, 2014.

Ratto, Matt and Stephen Hockema. "FLWR PWR - Tending the Walled Garden." *Open*

Design Now: Why Design Cannot Remain Exclusive. Ed. Bas Van Abel, et al.

Amsterdam, NE: BIS Publishers, 2014. 51-62.

Rettberg, Scott. "First Person, Games, and the Place of Electronic Literature." *Electronic*

Book Review (2005). Online Article. <[electronicbookreview.com/essay/first-](http://electronicbookreview.com/essay/first-person-games-and-the-place-of-electronic-literature/)

[person-games-and-the-place-of-electronic-literature/](http://electronicbookreview.com/essay/first-person-games-and-the-place-of-electronic-literature/)>.

"Ron and Tammy." *Parks and Recreation, Season 2*. NBC. Writ. Mike Scully. Dir. Troy

Miller, 5 November 2009. Television Series Episode.

Rowling, Joanne K. *Harry Potter and the Chamber of Secrets*. New York, NY:

Scholastic, 1998. Print.

- Ryan, Marie-Laure. *Narrative as Virtual Reality: Immersion and Interactivity in Literature and Electronic Media*. Baltimore, ML: John Hopkins University Press, 2003. Print.
- Salter, Anastasia and Blodgett Bridget. *Toxic Masculinity in Media: Sexism, Trolling, and Identity Policing*. New York, Ny: Palgrave Macmillan, 2017. Print.
- Salter, Anastasia. "Playing at Empathy. Representing and Experiencing Emotional Growth through Twine Games." *2016 IEEE International Conference on Serious Games and Applications for Health (SeGAH)* . Orlando, Florida: IEEE, 2016. Online.
- Sayers, Jentery. "Introduction: "I Don't Know All the Circuitry"." *Making Things and Drawing Boundaries. Experiments in the Digital Humanities*. Minneapolis, MN: University of Minnesota Press, 2017. 1-17. Print.
- Schmucker, Jonathan Matthew. *Roadmaps for Radicals* Mel Evans and Kevin Smith. 6 June 2018. Online Article. <<https://www.redpepper.org.uk/roadmap-for-radicals/>>.
- Sex Pistols. "God Save the Queen." By Glen Matlock, et al. London, UK: Virgin, 1977. Vinyl Record.
- Shiovitz, Dan. *Bad Machine*. Electronic Literature Organization. *Electronic Literature Collection Vol. 1*. 2006. Code Work. <collection.eliterature.org/1/works/shiovitz__bad_machine.html>.
- Spiegelman, Art. *The Complete Maus*. London, UK: Penguin Books, 1991. Print.

- Staley, David. "On the "Maker Turn" in the Humanities." *Making Things and Drawing Boundaries: Experiments in the Digital Humanities*. Ed. Jentery Sayers. Minneapolis, MN: University of Minnesota Press, n.d. 32-41.
- storytam. "Lesbian Vampire Dating Online." itch.io, 2017. Twine Game. <storytam.itch.io/lesbian-vampire-dating-online>.
- Svensson, Patrick. "The Landscape of Digital Humanities." *Digital Humanities Quarterly* 4.1 (2010). Online Article. <www.digitalhumanities.org/dhq/vol/4/1/000080/000080.html>.
- Taylor, Astra. "Against Activism." *The Baffler* 30 (2016): 123-131. Online article. <www.jstor.org/stable/43959210>.
- tecgothica. "Queered Static." itch.io, 2015. Twine Game. <riotjayne.itch.io/queered-static>.
- The Clash. "London Calling." *London Calling*. By Joe Strummer and Mick Jones. Wessex, UK: Wessex Records, 1979. Vinyl Record.
- The State of New York et al. v. Donald Trump. No. 1:17-cv-05228. United States District Court, Eastern District of New York. 6 September 2017. Document.
- Thompson-Klein, Julie. "The Boundary Work of Making in Digital Humanities." *Making Things and Drawing Boundaries: Experiments in the Digital Humanities*. Ed. Jentery Sayers. Minneapolis, MN: University of Minnesota Press, 2017. 21-31.
- Thorvalds, Linus. "Preface." Himanen, Pekka. *The Hacker Ethic and the Spirit of the Information Age*. New York, NY: Random House, 2001. vii-xii. Print.

Triggs, Teal. "Scissors and Glue: Punk Fanzines and the Creation of a DIY Aesthetic."

Journal of Design History 19.1 (2006): 69-83. Print.

UNICEF. *Fairness for Children: A League Table of Inequality in Child Well-Being in*

Rich Countries. Innocenti Report Card 13. Florence, IT: Unicef Office of

Research - Innocenti, 2016. PDF file. <[www.unicef-](http://www.unicef-irc.org/publications/pdf/RC13_eng.pdf)

irc.org/publications/pdf/RC13_eng.pdf>.

Warner Bros. Entertainment Inc. "DC Universe." 2019. *Batgirl*. Web Encyclopedia.

<www.dcuuniverse.com/mythos/batgirl/>.

Webster, Frank. *Theories of Information Society*. London: Routledge, 2014. Print.

X, Andrew. "Give up Activism." *Do or Die: Voices from the Ecological Resistance*

(2001): 160-166. Online Article. <www.eco-action.org/dod/no9/activism.htm>.

Xia, Allan and Renee Liang. "Golden Threads." itch.io, 2017. Twine Game.

<allanxia.itch.io/golden-threads>.

Xia, Allan. *PlayByPlay 2017 Festival Developer Interview with Allan Xia* Michelle Kan.

2017. Online Video. <[allanxia.itch.io/golden-threads/devlog/4840/playbyplay-](http://allanxia.itch.io/golden-threads/devlog/4840/playbyplay-2017-festival-dev-interview-w-allan-xia)

[2017-festival-dev-interview-w-allan-xia](http://allanxia.itch.io/golden-threads/devlog/4840/playbyplay-2017-festival-dev-interview-w-allan-xia)>.

X-Ray Specs. "Oh Bondage Up Yours!" By Poly Styrene. London, UK: Virgin, 1977.

Vinyl Record.

Yousuf Azeemi, Samina T. and S. Mohsin Raza. "A Critical Analysis of Chromotherapy

and Its Scientific Evolution." *Evidence-Based Complementary and Alternative*

Medicine 2.4 (2005): 481-488. Online Article.