

**Understanding Digital Literacy for Job Search for Formerly Incarcerated Individuals**

by

Ihudiya Finda Williams

A dissertation submitted in partial fulfillment  
of the requirements for the degree of  
Doctor of Philosophy  
(Information)  
in the University of Michigan  
2023

Doctoral Committee:

Professor Kentaro Toyama, Chair  
Associate Professor Tawanna Dillahunt  
Associate Professor Sheena Erete, University of Maryland  
Assistant Professor James Holly Jr.  
Professor Jeffrey Morenoff

Ihudiya Finda Williams  
iogburu@umich.edu  
ORCID iD: 0000-0002-2531-4634  
© Ihudiya Finda Williams 2023

## **DEDICATION**

This dissertation is dedicated to my mom, Mary Kumba Sinah, who saw my potential even before I could speak words or write sentences.

## ACKNOWLEDGMENTS

First and foremost, I thank God, Jesus Christ, He has kept me throughout this process. I am thankful I am finishing without many scares, but with confidence and a voice, knowing that wherever I go, I am a person of value and I can make an impact.

Words cannot express my gratitude to my advisor and chair of my committee for your support and your ultimate belief that I could be a doctor. Thank you for believing in me and not walking away when both life tragedies and and blessings hit me along this journey. Thank you for your consistency, and though you don't like it, you are indeed a role model of what a good advisor should be. Thank you for changing a generation. I am glad to say I am part of the 1.7% of PhD members granted to African Americans in computing, computer engineering, and information sciences. And I couldn't say that today, without you.

I also could not have undertaken this journey without my defense committee, who generously provided knowledge and expertise. Additionally, this endeavor would not have been possible without the generous support from the University of Michigan Rackham Merit Fellowship, GEM Fellowship, Microsoft Dissertation Fellowship, and Google Generation Scholarship

I am also grateful to my office mates, lab members, Night Writers, AAPHDCS listserv, and the Black Women in Computing Writing Group for their feedback sessions, presentation feedback, and moral support. Thanks should also go to the librarians, research assistants, and study participants who impacted and inspired me.

Lastly, I would be remiss in not mentioning my family, especially my parents, and spouse. I am thankful for both of my parents, Mary Kumba Sinah, RN and Dr. Eleanya Ogburu-Ogbonnaya. They both at different points of my life encouraged me and reminded me to keep going. From reminding me of the importance of the legacy of my name, to helping me believe I can do anything, and applying again when I face a rejection, my parents are the originators of where I obtained my grit, persistence, faith, and optimism. Lastly, I want to thank my husband who has been a part of this PhD journey since the first day I arrived in Ann Arbor. Thank you for being open to being in a relationship with a dreamer and global citizen. I thank God for your faith, stability, and trust. I thank God for blessing me with you as my husband.

# TABLE OF CONTENTS

DEDICATION . . . . .	ii
ACKNOWLEDGMENTS . . . . .	iii
LIST OF FIGURES . . . . .	vii
LIST OF TABLES . . . . .	viii
LIST OF APPENDICES . . . . .	ix
ABSTRACT . . . . .	x
<b>1 Introduction . . . . .</b>	<b>1</b>
CHAPTER	
<b>2 Positionality . . . . .</b>	<b>4</b>
<b>3 Literature Review . . . . .</b>	<b>7</b>
3.1 Returning Citizens and Reentry . . . . .	7
3.1.1 Challenges of Reentry . . . . .	7
3.1.2 Successful Reentry . . . . .	9
3.2 Returning Citizens and Job Search . . . . .	10
3.3 Returning Citizens and Digital Literacy . . . . .	11
3.3.1 Digital literacy and Reentry . . . . .	11
3.4 Technology and Reentry . . . . .	13
3.5 Adjacent HCI Literature . . . . .	14
3.6 Critical Race Theory . . . . .	15
3.7 African American Men Returning Citizens and Reentry . . . . .	18
<b>4 Method . . . . .</b>	<b>21</b>
4.1 Ethical Considerations (Assumptions, Limitations, and Delimitations) . . . . .	22
4.1.1 Diverse Literacy Rates . . . . .	22
4.1.2 Beyond Compensation: Challenges faced with respect to income, housing, health, and relationships . . . . .	22
4.1.3 Community Research Advisory Board . . . . .	24
4.2 Research Site . . . . .	24

4.3	Partner Organizations . . . . .	25
4.4	Incorporating Critical Race Theory . . . . .	25
<b>5</b>	<b>Phase One: Understanding Job Search and Technology Challenges and Opportunities</b>	<b>27</b>
5.1	Interviews and Survey . . . . .	27
5.1.1	Participants . . . . .	28
5.1.2	Data Security and Data Analysis . . . . .	28
5.2	Phase I: Findings . . . . .	29
5.2.1	Life Upon Reentry . . . . .	29
5.2.2	Interactions with Digital Technology . . . . .	30
5.2.3	Job Preparation and Job Search . . . . .	33
5.2.4	Discrimination and Disclosure . . . . .	37
<b>6</b>	<b>Phase Two: Towards an Effective Digital Literacy Classroom Intervention</b>	<b>40</b>
6.1	Action Research . . . . .	40
6.1.1	Sub-context of Race . . . . .	41
6.1.2	Participants . . . . .	42
6.1.3	Data Security . . . . .	43
6.2	Phase II: Findings . . . . .	43
6.2.1	Initial Curriculum . . . . .	43
6.2.2	The First Class . . . . .	44
6.2.3	Further Iterations . . . . .	45
<b>7</b>	<b>Phase Three: Designing Technology for Returning Citizen Job Search</b>	<b>47</b>
7.1	Design Studio Workshop . . . . .	47
7.1.1	Participants . . . . .	48
7.1.2	Structure & Implementation . . . . .	49
7.1.3	Scenarios and Focus Group Design . . . . .	52
7.1.4	Data Analysis . . . . .	54
7.2	Findings . . . . .	54
7.2.1	Definitions of Digital Literacy . . . . .	55
7.2.2	Preferred Sources of Help During Online Job Search . . . . .	55
7.2.3	The Frustrations of Online Forms . . . . .	58
7.2.4	Tactics Used to Work Around Challenges . . . . .	59
7.2.5	Bias and Discrimination . . . . .	61
7.2.6	Recommendations and Features from Participants . . . . .	66
<b>8</b>	<b>Discussion</b>	<b>71</b>
8.1	Unique Traits of Returning Citizens . . . . .	71
8.1.1	Strengths and Weaknesses with Job Search . . . . .	71
8.1.2	Inexperience with Technology . . . . .	72
8.1.3	The Importance of Social Support . . . . .	73
8.1.4	Wariness of Social Media . . . . .	73
8.1.5	Conviction Status . . . . .	74
8.2	Relevancy to the Reisdorf and Rickard Digital Rehabilitation Model . . . . .	74
8.3	Comments on Race . . . . .	75

8.3.1	Expanding Definition of Digital Literacy . . . . .	76
8.3.2	Employment Discrimination . . . . .	76
8.4	Implications for Design and Training . . . . .	77
8.4.1	Technical Recommendations . . . . .	78
8.4.2	Non-Technical Recommendations . . . . .	79
8.5	Limitations . . . . .	80
8.6	Future Research . . . . .	81
<b>9</b>	<b>Conclusion . . . . .</b>	<b>82</b>
9.1	Conclusion . . . . .	82
APPENDICES . . . . .		83
BIBLIOGRAPHY . . . . .		102

## LIST OF FIGURES

### FIGURE

3.1	Reisdorf and Rikard Digital Rehabilitation Model . . . . .	12
4.1	Event flyer in partnership with a student organization and nonprofit partner to confirm nonprofit and government contact information . . . . .	23
6.1	Student class notes from digital literacy classes . . . . .	45
6.2	Student listening to lesson during the digital literacy class . . . . .	46
7.1	A paper with writing on it showing RC3’s multiple ideas of obtaining assistance, which include (1) a website that shows sample emails available for free download, (2) an app that helps specifically with email grammar, (3) an app that links to college students who get college credit for help to assist and critique emails, and (4) calling someone who can help. . . . .	57
7.2	Image of virtual interviewer made together with a returning citizen and social support pair. On the left of the image is a computer screen where a person has the option to complete the form using text entry or using a virtual assist. On the right side is the virtual assistant beside the application form. The virtual assistant is saying ”Hi! What’s your name? Where do you excel? How long was your last job?” . . . . .	58
7.3	Image of participant ideas from top left to right. (1) Image of a cellphone that has writing in it that states: “Good Evening, But, we will no longer need you and your services are no longer needed....In person”, (2) Image found in Figure 7.1, (3) Image of one of the scenario worksheets where a participant writes, “Experienced Help!, online examples and grammar correction (or) spell-check”, (4) A plain white sheet of paper where a participant wrote, “Scenario #2 Call Them” . . . . .	68
7.4	Image of participant ideas from left to right: (1) On plain white paper, a participant writes and draws, “Scenario 1, I think the app process should be simplified. Interest Letter, Step 1: Video Recording, In person, Step 2: Relevant Info”, (2) Top right images shows a participant response from scenario one, which states, “I would like these forms to have voice recognition software attached to them. You fill out a lot of them and they become tedious. I also prefer the ones that have the skills and positions already present to choose from...Scenario 1”, (3) Bottom right image is Figure 7.2 . . . . .	70
A.1	Study One Flyer . . . . .	83
A.2	Study Two Flyer . . . . .	84
A.3	Study Three flyer . . . . .	85



## LIST OF TABLES

### TABLE

4.1	List of Critical Race Theory for Education Tenets and their relevance to the dissertation	26
B.1	Phone Screen Questions . . . . .	86
C.1	Survey Questions Page 1 . . . . .	92
C.2	Survey Questions Page 2 . . . . .	93

**LIST OF APPENDICES**

**A Phase I, II, and III Flyers . . . . . 83**

**B Phone Screen Protocol . . . . . 86**

**C Phase I Interview and Survey Protocol . . . . . 87**

**D Design Studio Workshop Schedule - Day 1 . . . . . 94**

**E Design Studio Workshop Schedule - Day 2 . . . . . 96**

**F Design Studio Workshop Scenarios . . . . . 97**

**G Focus Group Questions . . . . . 99**

**H Beyond the Dissertation . . . . . 101**

## **ABSTRACT**

Formerly incarcerated individuals face a number of obstacles transitioning home, among which job search is one of the critical issues. While searching for a job can be difficult for most people, returning citizens face additional obstacles due to their criminal records, gaps in employment, and reduced professional networks. Furthermore, returning citizens often have been incarcerated in prisons with little to no internet access. With this in mind, job search challenges are compounded by the fact that digital literacy is increasingly required to address them. Job search involves several digital elements, including searching for job postings, preparing an online resume, applying online, and communicating via email. Despite a considerable body of literature on the difficulties of reentry, there is limited research addressing the interaction between digital literacy and job search for returning citizens and little scholarly effort to design digital literacy programs for them.

Drawing on semi-structured interviews, action research in the classroom, and a design studio workshop, this dissertation explores the following research questions: (1) How do returning citizens interact with digital technologies, both in general and specifically for job search? (2) What challenges do returning citizens have as they seek to gain digital literacy skills? (3) How can digital technology be better designed to support returning citizens and their social support in digital literacy skill development for job search?

Through my research, I found that social support members play a pivotal role in helping returning citizens learn digital literacy skills and obtain access to a mobile phone. While returning citizens mirror mainstream populations in their mobile phone usage, they are wary of social media and face significant challenges distinguishing good and bad content online. Returning citizens also face substantial challenges determining when and how to disclose their criminal past on online applications. However, when faced with concerns about employment discrimination, especially racism, participants maintained a practical outlook.

Based on these findings, I recommend including social support members in the design of digital literacy for job search tools. I emphasize creating practical and applied digital literacy for job search course content that addresses the unique experiences of this population. Finally, I recommend the design of digital literacy for job search tools that reduce redundancy and engage users beyond text entry and text-based content.

My empirical research contributes to improved knowledge of how this population fares outside

of prison, specifically as it relates to job search and digital literacy. I suggest new features in curriculum design and the design of tools and resources for digital literacy for job search, specifically as it relates to returning citizens and their social support networks. Lastly, this dissertation also highlights the sub-context of the challenges of race, racism, and employment discrimination as it relates to the formerly incarcerated community navigating the digital aspects of job search.

# CHAPTER 1

## Introduction

In 2018, in the United States, over 600,000 formerly incarcerated individuals returned back to society [18]. These *returning citizens* faced a number of obstacles transitioning home. Among these obstacles, job search was one of the critical issues [3, 5, 9, 20, 47, 50]. While job search can be difficult for most people, returning citizens face additional obstacles due to their criminal record, gaps in employment, and reduced professional network. These challenges are compounded by the fact that digital literacy is increasingly required to address them. Job search involves several digital elements including searching for job postings, preparing an online resume, applying online, and communicating via email. Despite a considerable body of literature on the difficulties of reentry [4, 5, 20, 24, 51, 73, 79, 100, 101, 102, 119, 138], there is limited research addressing the interaction between digital literacy and job search for returning citizens and little scholarly effort to design or evaluate digital literacy programs for them.

For my dissertation, I seek to understand the following research questions:

1. How do returning citizens interact with digital technologies, both in general and specifically for job search?
2. What challenges do returning citizens have as they seek to gain digital literacy skills?
3. How can digital technology be better designed to support returning citizens and their social support in digital literacy skill development for job search?

To explore my research questions, I ran three studies: In Phase I, I conducted semi-structured interviews with 23 returning citizens in the Greater Detroit area, in which we discussed their job-related skills, job search tactics, and digital technology use. Next, in Phase II, I piloted a six-week digital literacy course using an action research paradigm [57] for a handful of returning citizens. Lastly, for the final phase (Phase III), I facilitated a design studio workshop based on the findings from Phase I and Phase II.

During the development and maturation of this research study, it became apparent that it was important to understand the implications of race and racism. With that in mind, I incorporated

critical race theory as a theoretical framework in my thesis. Race, racism, and challenges due to employment discrimination were not the initial focus of my research questions (Phase I and II); however, after observing the racial demographics of my participants, it became apparent that challenges related to race and racism should be examined. Therefore, Phase I and Phase II were further analyzed to understand the implications of race and racism with a focus on African American men – individuals who are significantly impacted in the criminal justice system in Michigan. Additionally, based on the findings and lessons learned from my previous phases, I changed both the approach and focus for Phase III. First, I incorporated a community research advisory board (C-RAB) that included several African American men returning citizens. I also designed Phase III to include a focus group on the experiences of African American men returning citizens.

In Phase I, I learned that while returning citizens face pressures to immediately find a job, they're rarely prepared for a modern job search, especially one involving digital elements. While returning citizens who faced longer sentences emerge with almost no digital literacy skills, they are quickly provided a mobile phone – often a smartphone – by their social support. Further, many returning citizens have a range of employable skills, and are moderately capable of using their social ties to find opportunities; yet, few are equipped with the more formal processes of job search, either online or offline. Lastly, while returning citizens use digital technology for purposes similar to those of mainstream users – for basic communication, for entertainment, and for online information search – many are wary of social media for a range of reasons.

Next, in Phase II, I discovered that returning citizens are hungry for tailored course content related to digital literacy for job search, but they also face significant challenges in acquiring the relevant skills. They own devices they know to be powerful, and they want to understand and use these devices better. As an instructor, one must be prepared to manage the diversity of incoming skill levels as it requires a combination of structured class time and open time for personalized one-to-one instruction. Additionally, significant work must be done to help students catch up to cognitive models of digital technology that much of society now takes for granted (i.e., sending an email, searching for content online, etc.). Lastly, unlike other populations (e.g., elderly people), returning citizens faced pressures to find work as soon as possible to support themselves, their families, and/or to pay back restitution, court fees, etc.

Finally, in Phase III, I found that while returning citizens were able to conceptualize common job search tactics and systems, they favored systems that ultimately led them to connect to a caring and knowledgeable human being. When navigating common job search systems, returning citizens faced significant challenges in knowing when and how to disclose their felony status, and often developed tactics to have more control over when to disclose their past incarceration. Furthermore, it became apparent that returning citizens' understanding of digital literacy for job search was often limited by the knowledge and expertise of the individuals who made up their social support

network. With that in mind, few social support members self-identified as returning citizens themselves and could only posit what would make a successful job application for their counterparts. Lastly, returning citizens and their social support expressed specific features they sought in technology platforms for job search: clear, simple job descriptions; auto-fill for commonly occurring input fields; video-based tutorials tailored to their unique needs; and options for human assistance.

With respect to race and discrimination more generally, returning citizens were aware of discrimination during job search, either as they encountered it directly or as they might in the future. They were also able to articulate discrepancies in the location of available jobs in relationship to where one lives in Detroit, which has a racial history. Returning citizens also appeared very optimistic and hopeful about interactions with future employers, even when made aware of research about discrimination in the job search process. However, when it came to designing technology, participants weren't fully aware of the discriminatory factors in the job search process outside of that of a biased employer.

My empirical research contributes to improved knowledge of how returning citizens with little to no internet access while incarcerated fare outside of prison as it relates to job search and digital literacy. I contribute new curriculum recommendations and new features in the design of tools and resources for digital literacy for job search, specifically as it relates to returning citizens and their social support networks. This dissertation provides empirical evidence of the Reisdorf and Rickard Digital Rehabilitation Model [105], specifically providing concrete evidence of the challenges returning citizens face as it relates to digital literacy for job search. Lastly, this dissertation also highlights the sub-context of the challenges of race, racism, and employment discrimination as it relates to the formerly incarcerated community navigating the digital aspects of the job search process.

## CHAPTER 2

### Positionality

The issue of criminal justice requires extensive reflexivity given the vulnerability of the population.

I am an African American woman HCI researcher who is based at the University of Michigan, a predominately white university. I grew up in a low-to middle income predominately African American suburban community outside of Washington, DC, where my neighborhood was highly surveilled by police. I have never been to prison, however, I have frequent memories of observing the police in my neighborhood, the over-policing of my school, and the profiling of my neighborhood due to its low-to-middle income status.

In my own family, I have individuals who have been incarcerated which supported my ability to interact with this vulnerable population. As I connected with my participants, who were predominately African American, many reminded me of individuals from my family, my neighborhood, and my community. However, my ideas about prison and who goes to prison were heavily influenced in the past by media. The true work needed to do this dissertation was unearthing the many years of force-fed information by entertainment, news, and other forms of media about the carceral system and reminding myself that every person that I met was a child once. Every person that I met was not their crime.

As an African American woman I am attuned to racial undertones – both micro and macro aggressions – as a means of survival in a capitalistic society. Since starting college, I have been cognizant of the racial mismatch of my home and the places where I study (predominately white institutions) where I am often questioned by other students and sometimes faculty about my existence, knowledge, and place in these spaces.

My research interest in this area spans previous research experiences working with research that explored community safety, juvenile justice students, and educational technology in highly constrained spaces [41, 75]

In fact, about two years before I began my PhD, I interned at the Center for Applied Special Technology (CAST) on the Reclaiming Access to Inquiry-based Science Education (RAISE) for Incarcerated Students project. The objective of the project was to understand whether students



performed better engaging science concepts using technology in comparison to students in a controlled prison environment. I assisted with the research by evaluating technology and software to determine their effectiveness in a juvenile corrections setting. During this time, I became aware of how restrictive and inconsistent the prison system can be as it relates to educational programs and what educational materials can and cannot be accessed by inmates. Performing research surrounding incarcerated students helped me become aware of the way technology can provide innovative methods to address educational issues in self-imposed resource-constrained environments.

Once I began my PhD program – recognizing that there are many intersections of marginalization that I do not experience – I was proactive in connecting with and learning about the returning citizen community. I volunteered in a prison and connected with a nonprofit that supports returning citizens. I toured the juvenile justice prison and the women’s prison, both located in Ypsilanti, Michigan, and I took classes on the topic of criminal justice. Lastly, I volunteered as a mentor at the Women’s Huron Valley Prison. These experiences provided me with exposure to the inside of prisons, which helped improve my understanding of the prison context. Additionally, my close relationships with several returning citizens broadened my understanding of the prison-industrial complex.

Throughout my dissertation itself, I prioritized using strength-based approaches to help understand formerly incarcerated individuals. I opted to not look at the criminal histories of participants until after each research study in an effort to not add additional biases to my frame or point of view. However, I acknowledge that some light secondary trauma did occur as some participants disclosed their past criminal history during interviews and design sessions.

After reflecting on Phases I and II of my research, I created the community-research advisory board (C-RAB) to inform my approach for Phase III. The C-RAB played a pivotal role in moving this dissertation forward by filling in knowledge gaps from my perspective. I discuss more about their role in the Methods section.

I also partnered closely with the Michigan State Appellate Defender Office (SADO), a reentry nonprofit, and Luck, Inc., a now defunct nonprofit organization founded by returning citizens. This experience provided me close proximity to individuals who were incarcerated or who worked daily with incarcerated individuals and their families.

Given my diverse exposure to formerly incarcerated individuals (e.g., media, community members, etc.), I consistently questioned my assumptions about my participants throughout the dissertation.

Overall, the research goals of this dissertation were closely guided by the community I focused on. Conversations with formerly incarcerated individuals from my community partner, Luck Inc. influenced the research directions of this work. Additionally, individuals I interviewed further affirmed the need for this work. Within my methodology, I describe how I partnered with formerly

incarcerated individuals to understand their lived experiences as collaborators.

This dissertation wouldn't be possible without the trust and support of the returning citizens, nonprofit businesses, and families who supported me in my research, and who navigate the challenges discussed in my dissertation everyday. I hope that efforts to understand their context supports changes in policies and laws.

## CHAPTER 3

# Literature Review

In this section, I review previous literature on, (1) returning citizens and reentry, (2) returning citizens and job search, (3) returning citizens and digital literacy, (4) technology and reentry, (5) adjacent HCI Literature, (6) critical race theory, and (7) Black men returning citizens.

### 3.1 Returning Citizens and Reentry

Reentry is the process of formerly incarcerated individuals from prisons returning back to their community [90]. In 2016, 2017, and 2018, over 600,000 formerly incarcerated individuals returned back to society each year, and over a million individuals continue to be incarcerated each year [17, 18]. In this section I will discuss the challenges of reentry, what constitutes successful reentry, and the importance of social support to returning citizens.

#### 3.1.1 Challenges of Reentry

Returning citizens face several issues upon reentry, including challenges obtaining employment, housing, social support, and healthcare (including substance-use rehabilitation) [4, 5, 9, 20, 47, 54]. While returning citizens commonly face these kinds of challenges upon returning home, the relative consequences of each is debated among researchers [3]. In this section, I will review common challenges faced by returning citizens.

First, returning citizens face several challenges as it relates to job search. For one, 40% of incarcerated individuals have not completed a high school diploma (as cited by [55] in [53]) which limits their job outlook. Limited formal education – in addition to criminal histories – often places returning citizens in a “secondary labor market” or “jobs that are characterized by lower wages, greater turnover, poor working conditions, and fewer possibilities for upward mobility” ([14, 103, 68, 14] as cited in [53]). In conclusion, education level compounded by factors like criminal history and a reduced professional network has caused finding a job that pays a living wage difficult.

Second, returning citizens, especially those without a strong social support face housing challenges [4, 44]. Some are placed in half-way houses, some stay with family, and some are initially housed in transitional housing, while others are homeless. Returning citizens face difficulty with housing due to their formerly incarcerated status. Laws and housing policies often legally enable the discrimination of returning citizens in the housing market [1, 4, 44]. Finding housing is especially difficult since, surprisingly, few formerly incarcerated individuals return to their hometowns after being released [53], which makes connecting with former supports more difficult.

Research also shows that social support can play both a positive and negative role in reentry. In this paragraph, I discuss the negative aspects of social support; later in the literature review, I discuss how social support can contribute to a successful return home. Social support includes support from family, friends, and nonprofits. In this thesis, I use the definition of social support created by Sugie and Augustine [131] who define social support as emotional and instrumental care and assistance, with instrumental support defined as material aid such as transportation, financial, housing, etc. [131]. As it relates to challenges, Harding et. al. [53] found that returning citizens, especially those from disadvantaged communities, face difficulties connecting with social support upon release. Meanwhile, when social support is available, it does not always result in positive outcomes. Towne et. al. [135] found that family and friends involved in the lives of returning citizens did not improve self-rated reports on their physical health. This research highlights how all challenges faced by a returning citizen interact with each other. Also, while some returning citizens have the benefit of interacting with family and friends, some do not. Nonprofits can be a form of social support, but researchers have discussed that nonprofits can also be a source of social control, punishment, and surveillance [53].

Neighborhood context, especially individuals who lived in low resource neighborhoods, can negatively impact reentry as individuals seek to distance themselves from pressures of their previous life [53, 63]. For example, using a data set of released returning citizens from Ohio, Huggins found that formerly incarcerated individuals in “economically disadvantaged neighborhoods and less residentially stable neighborhoods are more likely to recidivate [63].

Lastly, mental and physical health are additional challenges returning citizens must contend with when transitioning home. Given the stressors of navigating multiple reentry challenges and the pre-existing health conditions faced by returning citizens while incarcerated, maintaining good health (both physically and mentally) can be a challenge. Health challenges range from finding new healthcare providers as they return home to navigating the extreme mental challenges during reentry (e.g., rejections finding housing, rejections finding work, etc.).

As it relates to physical health, researchers like Semenza and Link [116] analyzed data from the Serious and Violent Offender Reentry Initiative (SVORI) and found that returning citizens rated themselves as having lower physical health. Binswanger et al. [9] found that after two weeks

from being released formerly incarcerated individuals had a risk of death that was 12.7 times higher than mainstream society. They also found that the leading causes of death in the returning citizens population were due to drug overdose, cardiovascular disease, homicide, and mental health challenges like suicide.

Clearly, these mental health challenges have a large impact on returning citizens. For example, Semenza and Link [116] found that returning citizens had increased symptoms of depression as they returned home. Halushka [51] in their 2020 study with incarcerated men found that these men found it challenging to navigate both criminal justice and welfare bureaucracies. In the study, they found that incarcerated men learn how to navigate the precarious systems, but were impacted in their well-being (physically and mentally) as they work to become full community members. In conclusion, returning citizens navigate several challenges that impact their physical and mental health during reentry.

### **3.1.2 Successful Reentry**

Successful reentry is the ability to be fully reacclimated to home, participating in everyday life in a way that is similar to individuals who have not been incarcerated. In this section I discuss factors that can contribute to successful reentry.

Research has shown that addressing the challenges with reentry that were mentioned in the previous section is an important step toward reducing recidivism [4, 5, 9, 20, 47, 54, 53]. In this vein, Freudenberg et al. [47] conducted two studies. The first study was a randomized trial of a case management and social support intervention designed to reduce drug use and recidivism for adolescent males and women in New York City jails. The second study used community-based participatory research and interviewed stakeholders related to New York City jails (people returning from jail, policymakers, and other stakeholders). In each study, the researchers found that steady employment and health insurance lowered rearrest rates and drug use.

Studies also show that social support of family, friends, neighbors, and community-based organizations play an important role in the successful transition of returning citizens [53, 139, 131]. While social support like family members can play a key role in successful reentry, they are not always provided with the proper resources to support returning citizens. Family care can often allow for customized support, yet, commonalities in the successful reentry experiences of returning citizens are often not understood sufficiently to improve the reentry process. However, researchers found the growing importance of not just family, but also community-based organizations and peers for successful reentry [106]. Riggs [106] conducted ethnographic fieldwork at a transitional house for men returning home from prison in New York City where he found that in addition to family, many of the house residents were connected to peers with a criminal background, either

from previous relationships or through community-based organizations. Their study found that social support from peers with a criminal background promoted prosocial behavior. Another example is provided by Blomberg et al. [11], who interviewed 45 formerly incarcerated women about how they were accessing resources during the COVID-19 public health crisis. This study found that due to their lack of stable access to internet, returning citizens relied heavily on social connections (family, friends, neighbors, etc.) and local organizations to access resources such as job applications and educational opportunities.

Overall, researchers have found that successful reentry varies by individual, based on social circumstances, prison system, and other factors [4, 45, 124]. Given the diversity of prison systems, social support systems, and the backgrounds of individuals incarcerated, many researchers are calling for a more holistic and community-based plan for reentry [84]. I extend the growing literature on reentry and supporting successful reentry by investigating how the widespread adoption of digital technology affects returning citizens and exploring how to support their efforts to gain technology skills for reentry.

## **3.2 Returning Citizens and Job Search**

In this section, I will review research related to returning citizens and job search and discuss job search challenges.

Job search can be challenging for returning citizens for a number of reasons. Statistically, returning citizens' educational preparedness and socio-economic background are lower than that for the general population, which can create barriers to employment [62]. Job search is also known to depend greatly on social networks and the ability to capitalize on them [147]. Returning citizens, though, tend to have either limited networks or networks less connected to legitimate work [8, 43]. Lastly, returning citizens must contend not only with the stigma of incarceration [96], but also with the dilemma of whether and when to disclose their prior criminal history [54, 62].

Pager and Quillian (2005) [96] highlight several issues with obtaining a job as a returning citizen. In their research article, "Walking the talk? What employers say versus what they do," [96], they use an experimental audit study of entry-level jobs matched with a telephone survey of the same employers. Using the employers actions and comments, they were able to learn about an employer's willingness to hire a Black or white returning citizen. Employers who stated they would hire returning citizens did not demonstrate this increased likeliness in their actions [96]. Additionally, the study found there was a difference when it came to race in which white returning citizens were three times as likely to be considered by a company than Black returning citizens [96].

Several research articles focused on the educational background and skill level of returning cit-

izen in the job search process, highlighting the lack of educational attainment (no high school diploma or no college degree) among the returning citizen population [42, 124]. In addition, the Urban Institute found that upon release few returning citizens had a job lined up or obtained employment-related training while in prison – even though finding a job has been shown to reduce recidivism [124]. While several authors have shared the challenges faced by returning citizens and their job search, a study from Liu, Huang, and Wang (2014) [82] found that the “odds of obtaining employment were 2.67 times higher for job seekers participating in job search interventions.” Additionally, they also claim that “job search interventions that contained certain components, including teaching job search skills, improving self-presentation, boosting self-efficacy, encouraging proactivity, promoting goal setting, and enlisting social support, were more effective than interventions that did not include such components” [82].

Overall, returning citizens face a series of challenges when looking for a job. A significant number of returning citizens have no college degree, lack the social ties to help them advance out of their current employment status, and face discrimination-related issues when applying to jobs. My research extends this current literature by addressing how digital literacy for job search and access to technology can have an impact on how returning citizens navigate online job tasks.

### **3.3 Returning Citizens and Digital Literacy**

The American Library Association defines digital literacy as “the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills” [2]. In this section, I will discuss digital literacy as it relates to reentry, presenting both the implications and the relevant research studies and findings.

#### **3.3.1 Digital literacy and Reentry**

Reisdorf and Rikard’s offer a sociological framework called “digital rehabilitation” for incorporating digital skills when considering returning citizens reentry needs [105]. This model provides the theoretical framework for my research. The digital rehabilitation model (Figure 1) integrates a communication-theoretic model that sees digital exclusion as mirroring offline social exclusion with a two-phase conceptualization of rehabilitation spanning time in prison and reentry [59]. Their work is based, in part, on a study of digital encounters among inmates in England and Northern Ireland. While they do not report empirical findings specifically about returning citizens [67], they do, however, call for reentry programs to pay greater attention to the digital, and my work is in part a response to that call.

Since 2018, additional researchers have examined digital literacy and reentry. For example,

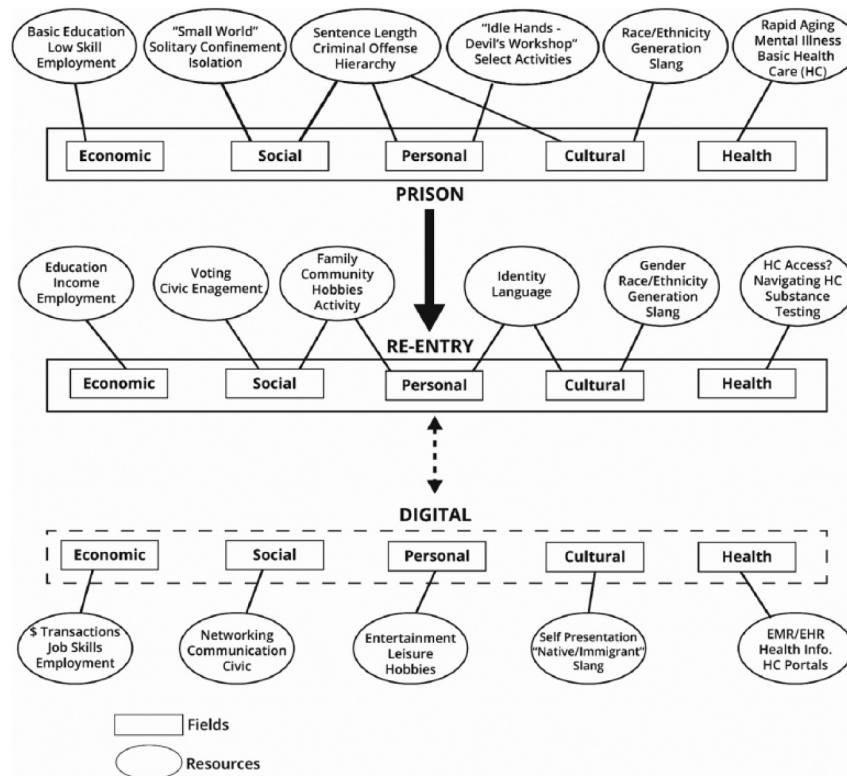


Figure 3.1: Reisdorf and Rikard Digital Rehabilitation Model

in 2020, Magassa [84] developed a holistic digital literacy framework called "everyday digital literacy" that seeks to understand the digital literacy levels of formerly incarcerated individuals. Magassa [84] developed their framework using closed card sorting, focus groups with returning citizens, and interviews with experts, and determined that their returning citizen participants assessed themselves as having low to medium digital literacy. Seo et. al, has published several studies seeking to develop and understand digital technology usage and privacy skills of formerly incarcerated women [11, 19, 118, 117]. Seo et al. [118] conducted interviews with 75 women transitioning from incarceration (women who left incarceration within the last 5 years). They found that housing, financial problems, concerns over ex-partners, poor mental health, and lack of self-efficacy posed challenges for access to and use of digital technologies and online privacy. In another paper, Choi et al. [19] proposes a mobile application to support the teaching of digital literacy to returning citizens who are women. My dissertation builds upon this existing body of literature by providing empirical evidence to the Reisdorf and Rikard model, and it dives deeper into the challenges faced by returning citizens, especially African American men returning citizens, as it relates to digital literacy for job search.



### 3.4 Technology and Reentry

As of recently, researchers have been acknowledging the challenge of acclimating to and navigating services using technology for individuals who have left prison [11, 50, 104, 119]. Shlosberg's [119] 2020 study uses interviews of exonerees – individuals absolved of blame from a prison sentence but who may have spent time in prison [78]. This work highlights technology as a critical area that needs to be addressed in the transition home, especially since it has an impact on all challenging areas. Gurusami [50] conducted an 18-month ethnographic study where they found that formerly incarcerated Black women must contend with an online landscape that makes it difficult to hide or avoid their carceral past. Furthermore, their limited knowledge of the digital landscape leaves them susceptible to scams and identity theft. Gurusami concludes that "...digital training and solidarity offer some possibility of self-defense, individual-level interventions are limited in their capacity to shape the Carceral web." Gurusami's findings highlight the precariousness of navigating the internet after leaving prison, especially when looking for a job and other social services.

Researchers have also called for technology developed for returning citizens to be accessible to a diverse set of users, including being mobile friendly and useable without access to the internet [11, 49, 93, 118]. For example, Grierson et al. determined from their interviews and workshops with Australian community service organizations, the Department of Justice, and individuals previously incarcerated that it is necessary to design web and mobile applications that provide offline functionality that can be accessed without internet connectivity. Blomberg et. al [11] discusses in their study how formerly incarcerated women in the United States mostly used smartphones to engage online, except when they were filling out online forms for unemployment or housing benefits.

Researchers have also suggested that technology ought to be developed that is not associated with the criminal justice system [49, 105, 118] – who play a role in the control and surveillance of returning citizens before, during, and after incarceration. Grierson et al [49] who conducted a design studio workshop with stakeholders in the reentry process in Australia specifically states that "participants were adamant that a digital service would not be used if there was even a perception of an association with the justice system." Another example is that Seo et al [118] found that recently released formerly incarcerated women avoided posting online as they feared being surveilled online by the government. Overall, both examples demonstrate how returning citizens widely are of aversive and aware of the surveillance of the criminal justice system.

Furthermore, researchers recommend digital content containing relevant information about reentry processes and systems with the option of support from family, friends, neighbors, libraries, and other social support. [11, 49, 130]. For example, Sugie [130] recommends providing targeted employment resources to returning citizens – especially older returning citizens – to support

their job search during reentry. Grierson et al. [49] calls for the design of an application that has information tailored to an individual returning citizen, allowing them to find and access relevant resources, improve their digital capabilities, and view tips for independent living to help adjust to life after prison.

Lastly, researchers recommend technology tailored to the intersectional identities of returning citizens [11, 49]. Both Grierson et al. [49] and Blomberg et al. [11] recommend the design of applications that are accessible – considering different abilities, different cultural backgrounds, different linguistic capabilities, different life experiences, and different modes of accessing technology in the design of the tool.

Despite the work above, few have sought to understand the experiences of formerly incarcerated individuals within the United States as it specifically relates to digital literacy for job search. Consequently, most of the recommendations in the existing work occur at a high level, with few detailed findings or suggestions. Additionally, few researchers have sought to understand how race and racism in the United States has an impact on an individual’s online job search process. My thesis extends the work above by specifically examining returning citizens’ digital literacy skills for job search and the development of technology to support skill development. I look more in-depth at the identities of returning citizens, especially as it relates to their race and conviction status. Furthermore, through a design studio aimed at learning what returning citizens themselves want from technology, I gain more direct insight into potential technology-based interventions for job search and digital literacy.

### **3.5 Adjacent HCI Literature**

While HCI researchers have not specifically explored digital literacy for job search within returning citizen populations, they have addressed adjacent topics, such as research on incarcerated individuals, and research on low-income and underserved job seekers. Underserved job seekers within HCI research have included homeless youth [60, 61], youth with autism spectrum disorder (ASD) [58], and job seekers from low-income and transportation-scarce areas [31, 33, 34, 35, 65, 83, 147]. In this section, I describe adjacent HCI literature.

Within the HCI community, one study has considered the increasing use of technology in prison life and the implications it might have on incarcerated individuals [142], but they did not consider challenges post-release. Other relevant work includes research focused on job search among a range of underserved communities – low-income urban adults, homeless populations, older adults, and so on [31, 36, 58, 60, 61, 147]. However, while these explorations occasionally include a returning citizen among the participants, they do not identify or address trends particular to returning citizens.

Adding to this body of adjacent research, Dillahunt et al. [36] contribute a literature review of HCI research that explores some of the barriers that underserved job seekers face and presents key design insights from these investigations. They found that underserved job seekers require support for their social, personal, and societal needs. Social needs include the need for social networks – especially to connect to job leads and to provide feedback on interviews – as well as social resources and emotional support [36]. Personal needs require effort from one’s self such as the ability to articulate one’s skills and career path and the ability to self-reflect [36]. Finally, societal needs refer to challenges that require government or community implementation such as the need for public transportation, support for combating discrimination, and childcare access [36]. In terms of design insights, these authors found that low-resource job seekers had an overwhelming preference for employment tools that addressed their social and personal needs. While some of these needs and digital concepts may be beneficial to returning citizens, the review of past HCI literature for underserved job seekers did not include this group. As prior research calls out, exploring the employment needs of job seekers with prior felonies and suggesting ways to address these needs through design (beyond providing a list of felony-friendly companies) is an open research area [31].

All of this is to say that while there have been many efforts addressing adjacent issues, there is limited research that explores how digital literacy and digital tool use directly impact job search among returning citizens.

### **3.6 Critical Race Theory**

While my main focus is on researching reentry, job search, and digital literacy, I use critical race theory in my approach to the work because race and racism are inextricably intertwined within the criminal justice system in the United States. In this section, I provide an overview and history of critical race theory, critical race theory for education, ongoing debates within critical race theory, and recommendations on conducting research that deals with race.

Race has multiple definitions and the definition remains contested [86, 110, 146, 127]. I refer to race as a categorization that is socially constructed, but that involves material and concrete consequences [88, 92]. Common racial categories in the United States are Asian, Black or African American, Hispanic or Latinx, Native American, Pacific Islander, and White. However, racial categories are not fixed nor exhaustive and who is included in certain racial categories has changed over time.

Racism comprises attitudes, actions, and institutions which create inequitable outcomes for racially marginalized groups [92]. It includes overt acts such as hate speech and violence; systemic exclusions, prejudices, and biases; and subtle – even unconscious – acts, such as aversive

racism and microaggressions [27, 38, 91]. Racism can be perpetrated by individuals, groups, and institutions, either intentionally or unintentionally [27].

I define anti-racist as supporting efforts, especially policy changes that fight against the different forms of racism (individual racism, interpersonal racism, institutional racism, and structural racism) [71].

Critical race theory gives voice to minoritized individuals impacted by racism and empowers minoritized communities by highlighting their value [125]. It was developed in the 1970s by legal scholars that include Derrick Bell, Alan Freeman, Richard Delgado, Kimberlé Crenshaw, and Mari Matsuda. It aimed to highlight the problems with the colorblind approaches that were used to examine civil rights law cases following the Civil Rights Act and Voting Rights Act in the 1960s. Scholars used the theory to call attention to the inherent racism in the policies and laws that persisted after the Civil Rights Movement of the 1960s. Theorists chose to highlight minoritized voices through storytelling to demonstrate the need for race-focused policies within the United States. Their overall intent was to eliminate racial oppression as part of a larger goal of eliminating all oppression [132]. Today, the ideas posited by critical race theory – that racism is a systemic problem built into legal, political, and cultural structures – is applied to a range of academic fields and theoretical frameworks. In HCI research, critical race theory offers researchers a critical approach to examining how race and racism can have an impact on both participants and the research process. Overall, this lens enables researchers to develop interventions from an asset-based viewpoint [127] by critically examining how everyday ideas, viewpoints, and perspectives are impacted by racism.

Though critical race theory does not have a fixed set of principles across research fields, a few of its tenets are widely agreed upon. In the section below I describe critical race theory tenets based on text adapted from Ogbonnaya-Ogburu et al. [92].

Racism is ordinary, not aberrational [129]. Those who rarely encounter racism themselves often think of racism as an occasional happening – that a minority of individuals are racist, and racist events are one-off occurrences. But racism is pervasive, ever-present, structural, and systemic. Those who experience it do so on a regular basis in a variety of forms with a range of severity. Racism is often embedded in institutions and practices. To productively discuss racism, its hidden ubiquity must be exposed and acknowledged.

Race and racism are socially constructed [26]. Race does not represent biological or genetic truths. Instead, racial categories, and social behavior with respect to them, are entirely human-made. Despite this, their effects and consequences are real, and there is substantial evidence demonstrating this. Furthermore, this is not to say that physical characteristics have no genetic basis, but that the categories used to differentiate and divide groups of people are artificial. History has shown that racial categories are fluid [12].

Identity is intersectional [22]. Each person represents a unique and even potentially conflicting set of overlapping identities. In order to discuss and dismantle racism, scholars must be anti-essentialist and incorporate an understanding that these intersecting identities create unique contexts.

Liberalism itself can hinder anti-racist progress [26]. Liberalism's very aspirations to color-blindness and equality – while admirable – can impede its goals, as they prohibit race-conscious attempts to right historical wrongs. In addition, liberalism's tendency to focus on high-minded abstractions can lead to neglect of discrimination in practice.

Those with power rarely concede it without interest convergence [7]. Racism benefits some groups, and those groups are reluctant to move against it. They will take or allow anti-racist actions most often when it also confers them benefits. In the U.S. context, the forward movement for civil rights has typically only occurred when it is materially in the interest of the White majority.

There is a uniqueness to the voice of color, and storytelling is a means for it to be heard [25, 127]. Belonging to a racial minority group endows one with a unique perspective, especially with regard to race and racism. Counter-stories can challenge and displace dominant narratives, which are broadly held, consciously or unconsciously. Critical race theorists often use counter-storytelling as a methodological approach to understanding minoritized voices within a research project [127]. They can consist of fiction, personal stories, other people's stories or narratives (biographical stories), or composite counter-stories (drawing on various forms of data to tell a fictional story based on actual evidence) [127].

As critical race theory has been adopted and built upon by other fields – such as public health, education, and history – field-specific tenets have developed as well. Given that my dissertation includes an educational component, I draw from critical race theory as adapted for education [126, 127]. Critical race theory for education re-emphasizes the centrality and intersectionality of race and racism [22, 26, 129], and the valuing of experiential knowledge [25, 127].

Critical race theory for education includes three additional tenets:

Challenge to dominant ideology [77]: Critical race theory challenges ideas of objectivity, meritocracy, color-blindness, race neutrality, and equal opportunity. Notions of “neutral” or “objective” research often silences the voices of minoritized individuals and creates a deficit viewpoint of these communities that often exacerbates or confirms white supremacist ideas of non-white individuals.

Commitment to social justice: Critical race theorists have a commitment to social justice. They fight for the elimination of racism, sexism, poverty, and the empowerment of other minoritized groups or identifiers.

The transdisciplinary perspective: Theorists challenge ahistorical perspectives and insist on analyzing race and racism within a historical context. They draw on scholarship from law, history, psychology, film, etc., to situate and further understand minoritized populations.

Within computing, and specifically HCI, researchers have also explored topics about race, including the use of frameworks like intersectionality and critical race theory [92]. Schlesinger et al. [114] conducted a survey of all the ACM CHI Conference on Human Factors in Computing Systems (CHI) proceedings since its first convention in 1982, collecting a total of 140 papers that include intersectional perspectives. This is approximately one percent of all published CHI papers at the time of publication (which was in 2017). The authors leveraged their findings to call for additional work that engages more thoroughly with identity complexities. In their paper, Schlesinger et al. [114] argues for the need to consider users and authors with more awareness directed towards a person's complex identities. A concrete research example of the examination of race in the field of HCI is Thomas et al.'s [134] research that explored the intersectional experiences of Black women in computing, including discussions of work, family, and other topics. In this study, they found that participants experienced sexism, racism, isolation, and too low or too high expectations.

Ogbonnaya-Ogburu et al.'s [92] paper introduced critical race theory for HCI. The authors addressed the following tenets: racism is ordinary, not aberrational; race and racism are socially constructed; identity is intersectional; those with power rarely concede it without interest convergence; liberalism itself can hinder anti-racist progress; there is a uniqueness to the voice of color.

Most commonly, when intersectionality and critical race theory are used in HCI research, the focus is on computer science education and computer science as a professional field [21, 74, 109, 115, 134, 137]. For example, a study from Ross and Godwin [109] provides preliminary results of a study seeking to understand why African American women leave the engineering field. Another example is the work of Kizilcec et al., who explore the early social cues of women in online science, technology, engineering, and math (STEM) courses.

In this dissertation, I applied the principles of critical race theory for education in my approach to the research, and I also used the theory as one lens for analysis as it provides me the opportunity to understand how race and racism impacts returning citizens and their digital literacy skills for job search. I discuss more about how I applied critical race theory in this research in the Methodology chapter.

### **3.7 African American Men Returning Citizens and Reentry**

Given the large percentage of Black or African American men reflected in my study, understanding the specific perspectives of African American men returning to their communities after incarceration is critical in understanding what visible and invisible aspects play a role in successful reentry. Additionally, it is important to understand the social history that has led to the high incarceration rate of African American men in the U.S. In this section, I highlight aspects of incarceration history, and I provide a brief summary of what is known about Black men returning citizens. Next,

I explore research on the health outcomes of this population, and conclude with research that explores African American men returning citizens and job search.

The criminalization of Black bodies has occurred since the existence of the United States. Alexander [1] examines this history, noting that it does not extend to just Black people who have been previously incarcerated, but Black people in general. From slavery, to the failure of the Reconstruction era, to imposition of Jim Crow laws, to the War on Drugs in the 1990s, there is a consistent theme of wanting to contain, control, and stereotype Black bodies. [1, 95]. According to the U.S. Department of Justice, Black men were incarcerated at 5.8 times the rate of white men in 2018 [18], even though African Americans only make up 13% of the US population [141]. Black returning citizens are more likely to return to underserved neighborhoods and are most likely to have family members that have been in prison or jail [52]. Additionally, they are more likely to experience longer sentences and more likely to come from communities with poorer schools (since schools are often funded by local income tax in the United States) [52].

This body of literature on formerly incarcerated Black men can provide helpful context, but it tends to be deficit focused and absent of the historical context leading to mass incarceration in America. It also contains little description of any advantages that Black returning citizens might have. However, other researchers have sought to understand the opinions and perspectives of African American men in the reentry process, and this work speaks more to the strengths of Black men returning citizens. Several studies have sought to unpack the various intersectional identities of African American men returning citizen to demonstrate the diversity of this population. For example, Payne and Brown [98] conducted a mixed-methods research study to understand how street-identified and/or previously incarcerated Black American men and woman interpret the impact of reentry on themselves and their neighbors [98]. Payne and Brown found that participants understood the circumstances that led them to prison and understood what was needed for successful reintegration into their communities (requiring self-discipline and personal, social, and economic security). The authors also found that Black men and women differ in their reentry experiences. Another example is DeVaux [28], who researched how Black men in reentry define success and found that Black men shared similar definitions of successful reentry as researchers. Their definitions of successful reentry also included included material (satisfying quality of life), social (community reintegration), and psychological goals (positive self-concept and self-worth) that could take several years in a non-linear process.

Researchers have also sought to understand the impact of health, including mental health, during the reentry process, specifically for African American men [29]. For example, Wallace et al. [145] found that while drug overdose, cancer, and cardiovascular disease were the leading causes of death amongst young Black men (ages 18-25) who were formerly incarcerated, participants self reported their health status as excellent despite reporting health concerns within the past year.

Given the mass incarceration of Black people in the United States and the challenges faced by this population, Wallace et al. concludes by recommending that there should be health programs specifically focused on African American men who are formerly incarcerated [145]. Mahaffey et al. [85] found that mental health challenges were three times higher in prisons, and that Black men returning citizens who reported mental health challenges most often used alcohol as a coping mechanism and were often unemployed.

Lastly, researchers have found that African Americans, especially African American formerly incarcerated individuals fared worse than white formerly incarcerated individuals in job search. Pager [95] found in a field experiment that a white applicant with a criminal record was just as likely to receive a callback as a Black application without a criminal history when comparing the callback records of white applicants with no criminal history and white applicants with a criminal history to Black applicants with no criminal history and Black applicants with a criminal history [95]. Pager's research shows that even without a criminal history, Black people are viewed as high risk.

Researchers have thoroughly investigated the history around the increased incarceration of African Americans in the United States. While researchers have historically focused on deficit understandings of this community, they have recently taken a different approach and sought to understand the opinions and livelihoods of African American men returning citizens as they navigate returning to their communities. My dissertation builds on previous research that seeks to understand the experiences of African American men returning citizens and explore current and new technologies used to support digital literacy for job search (Phase III). I address how Black men returning citizens reflect on their own experiences with digital literacy and job search as well as their understanding of employment discrimination, race, and racism as they navigate technical tools.



## CHAPTER 4

### Method

My research was conducted in three phases. In this chapter, I provide a brief overview of each phase, highlighting the methodological approach taken in each study, when the study occurred, and the analysis used for each study. Detailed methodology for each study is provided in each of the following three chapters.

In Phase I, I conducted semi-structured interviews with 23 returning citizens in the Greater Detroit area to learn about their job-related skills, job search tactics, and digital technology use. This research was conducted during the summer of 2018. Interviews were initially analyzed using thematic clustering and iterative summarization with a focus on job search, digital literacy learning, and technology use. I conducted additional analysis in the summer of 2023 using critical race theory as a framework to analyze conversations and topics that were focused on race, racism, discrimination, and disclosure.

Next, in Phase II, I piloted a six-week digital literacy course using an action research paradigm [57] for a handful of returning citizens. This research was also conducted during the summer of 2018. As the instructor of the classes, I wrote field notes and audio recorded the classes to collect data. The curriculum for each class was adjusted based on data collected, despite being initially designed from Phase I findings.

Finally, in Phase III, I facilitated a design studio workshop based on the findings from Phase I and Phase II. The purpose of Phase III was to understand how returning citizens responded to potential tech-enabled interventions to support their digital literacy for job search, and to understand whether and how returning citizens would like to see content about bias and discrimination embedded in an intervention. This final research project was conducted during the summer of 2022 in the Greater Detroit area. Participant artifacts and audio recordings of the workshop were analyzed using thematic analysis. Member-checking was also used to confirm analysis during and after the workshop with participants and the community-research advisory board.

For the remainder of this section, I discuss the methodological approach used to answer my research questions. I highlight ethical considerations, provide an overview of my research site and partner organization, and present my research process.

## **4.1 Ethical Considerations (Assumptions, Limitations, and Delimitations)**

There are several ethical challenges with this research, specifically due to being focused on an already vulnerable community and because of the sensitive topics discussed in interviews and focus groups. In this section, I will review the ethical considerations (assumptions, limitations, and delimitations) considered in my dissertation.

### **4.1.1 Diverse Literacy Rates**

In 2016, over 38% of individuals incarcerated reported having a disability with the most common types including cognitive (23%), ambulatory (12%), and vision (11%) disabilities (Maruschak, 2021). During interviews and informal conversations, I met several people who stated that they were functionally illiterate. In order to maintain the dignity of my participants as it related to cognitive disabilities, especially literacy rates, I ensured that surveys and design studio workshop content were presented in a diversity of ways. For example, all survey questions in Phase I were printed on paper in addition to being read out loud in to give participants the option of how they would like to consume the content. During Phase II, I shared tools and resources that allowed content to be read out loud, I limited exercises that encouraged participants to read out loud to the class, and ensured that class content was culturally relevant and focused on the goal of digital literacy. Finally, in Phase III, I encouraged participants to create how they felt most comfortable creating (e.g., talking to the recorder on workshop tables, drawing, taking a picture, dancing, writing a poem, etc.) and be prepared to explain it during the discussion portion of the session.

### **4.1.2 Beyond Compensation: Challenges faced with respect to income, housing, health, and relationships**

Several measures were taken beyond compensation to ensure my research didn't cause new challenges as many of my participants were actively looking for jobs, securing housing, and more. My research involved interviews, classes, workshops, and focus groups that took time away from participants to address their current challenges. While I attempted to have classes on the weekends, that was not always guaranteed for interviews and the design studio workshop. Many companies have specific office hours that they can be reached and I was cognizant of the time participants used to participate in this study. In addition to compensating participants, I curated lists of useful reentry resources to assist participants in alleviating pressures related to income, housing, health, and relationships. I also made myself readily available to parole officers to ensure my participants



Figure 4.1: Event flyer in partnership with a student organization and nonprofit partner to confirm nonprofit and government contact information

did not break parole restrictions.

I created a lists of useful reentry resources for my participants to support their efforts of successful reentry. To ensure accuracy of my curated lists, I partnered with the The State Appellate District Office Prison Re-Entry Project, an undergraduate student group, and the Information Alliance for Community Development (IACD), a graduate student group, to confirm the contact information of nonprofit organizations during the initial development of this study through a “call-a-thon” (Figure 2). Confirming the contact information of local nonprofits was important to ensure accuracy of reentry resources shared. Information learned from the “call-a-thon” was shared with my community partners and participants.

Lastly, I worked closely with nonprofits and parole officers to ensure participants were not at risk of breaking the law. For example, sex offenders who are on parole often could not get on the internet as a parole restriction. I requested all participants who were on parole to inform their parole officer and asked them to give the research team’s contact information to the officer. I spoke to several parole officers to clarify the goals and outcomes of the study. Overall, additional actions were taken to limit any additional challenges to returning citizens that could have been caused by

my dissertation.

### **4.1.3 Community Research Advisory Board**

To support the gaps in my experience of the criminal justice system, I created a community-research advisory board to act as a group of advisors for my project. A community-research advisory board (C-RAB) Committee was created in October 2020. The purpose of the advisory board was to collaborate with community members directly affected by the carceral system. The committee was composed of three returning citizens, two social workers, and three researchers (i.e., my undergraduate researcher, my advisor, and myself) . One social worker was an employee of a nonprofit organization that regularly works with returning citizens in assisting them with getting adjusted to returning home. They have the responsibility of performing needs assessments and collaborating with returning citizens to get access to resources and mental well-being care. One social worker was a returning citizen and activist who previously held positions inside the prison advocating and writing legal briefs. We met initially bi-weekly to discuss research logistics and implementing service initiatives to support returning citizens and their families. Meeting topics varied from recruitment, ethical implications of research, discussions of race and discrimination in the study, as well as conducting pilot studies of the methods. Members of the committee were compensated \$20.00 per one hour meeting and given the opportunity to be trained as research assistants. Participants were also given authorship credit in future research papers related to this dissertation project.

All members of the C-RAB Team acknowledged the importance of digital literacy and the research needed to improve it. They also acknowledged that the implementation of the research project must focus on providing skills the participants would be able to apply to their personal and professional lives.

## **4.2 Research Site**

This study was based in Detroit, Michigan between 2018 to 2022. Participants were located in the Detroit metropolitan area and surrounding suburban areas.

According to the 2020 U.S. Census, Detroit has an estimated population of 630,000 people [140]. Seventy-seven percent of the population of Detroit describes themselves as Black or African American, followed by 14% of individuals who identify as White. About two percent of the population identifies themselves as Asian, and less than one percent of the Detroit population self-identifies as American Indian and Alaska Native or Native Hawaiian and Other Pacific Islander. As an ethnicity, Hispanic or Latinx people make up about 8% of the population.

As it relates to the carceral system, Wayne County Jail, the largest county jail system in Michigan, is located in the Detroit Metropolitan area [72]. Furthermore, in 2003, over 30% of returning citizens paroled to Wayne County, which is more than any other county in Michigan. Of the over 30%, the majority of the individuals were African American men [124]. Given that the Detroit Metropolitan Area has an increased amount of returning citizens paroling in the area it is a site of interest for this research study.

### **4.3 Partner Organizations**

The State Appellate District Office (SADO) and the organization formerly known as Luck, Inc. (now no longer active) were my community partners in this research project. SADO, specifically Project Reentry was founded in 2016 to support the holistic needs of juvenile lifer returning citizens in Michigan [23]. I chose to partner with SADO because of their history of maintaining positive long-term relationships with the returning citizen community. For example, during a monthly educational meeting, returning citizens who graduated from their services would often return to share advice and resources. The organization formerly known as Luck, Inc. was founded by a team of returning citizens in Detroit. The mission of the organization was to teach life skills to at-risk youth, returning citizens and individuals who are incarcerated. I chose Luck, Inc. because it was founded by returning citizens for returning citizens. I obtained several recommendations of these organization by individuals from Detroit and the University of Michigan community.

### **4.4 Incorporating Critical Race Theory**

Critical race theory has been used as a theory, analytic frame, and more [15, 16, 127]. For this dissertation, critical race theory was used as an approach to the research itself and an analytic frame to support conversations related to race and discrimination. In Table 4.1, I list critical race theory tenets for education and describe their use in my dissertation. Critical race theory supports my ability to focus on the realities of job search for racially marginalized participants who may experience employment discrimination during the job search process.

Phases I and Phase II didn't initially use critical race theory as a theoretical framework. Yet, the racism (explicit and implicit) participants experienced was apparent during interviews and informal conversations. I also recognize that due to my own positionality as an African American woman I am attuned to issues of race and racism as I navigate racial challenges in my own life. Thus, data from Phase I and Phase II were further analyzed after interviews and one round of analysis was conducted, using critical race theory as a theoretical framework. Phase III, however, explicitly incorporated critical race theory in the design, development, and analysis of the whole study.

Finally, although I sought to understand how design could support returning citizens as they engage with job search online and offline, I did not seek racially targeted design features. Instead, my hope was that by centering the voices of African American men returning citizens, the overall recommendations would naturally accommodate their needs. In the context of the U.S. criminal justice system, African American men are over-represented. Therefore, accommodating their needs is likely to both serve anti-racist goals and result in recommendations that support all returning citizens.

<b>Tenet</b>	<b>Usage in Dissertation</b>
<b>The centrality and intersectionality of race and racism</b>	Discussion of race and discrimination in the dissertation  Seeking to understand the multi-faceted identities that participants carry and how it impacts their job search
<b>Challenge to dominant ideology</b>	Understanding how uniqueness of perspective impacts engagement/ learning/etc.  Committing to use clear and direct language as it relates to race, ethnicity, and racism
<b>There is a uniqueness to the voice of color/The valuing of experiential knowledge</b>	Usage of interviews, focus groups, and community-research advisory board
<b>Commitment to social justice</b>	Digital Literacy Courses
<b>The transdisciplinary perspective</b>	Literature reviewed in Sociology, Communication, Education, and Human-Computer Interaction

Table 4.1: List of Critical Race Theory for Education Tenets and their relevance to the dissertation

## CHAPTER 5

# Phase One: Understanding Job Search and Technology Challenges and Opportunities

In Phase I, I sought to understand how returning citizens search for jobs and how they interact with digital technologies – both in general and specifically for job search. I conducted semi-structured interviews with returning citizens about their experiences with job search, digital literacy, and digital literacy for job search. This exploratory study was the first of its kind in understanding the experiences of returning citizens with digital literacy as it related to job search.

In this chapter, I provide an overview of my methodological approach, which includes an overview of method, participant background, data security, and data analysis. I then conclude with what was found in this research project.

### 5.1 Interviews and Survey

In Phase I, I performed semi-structured interviews that explored interviewees' previous jobs or careers prior to being incarcerated, their work performed while being incarcerated (legal and illegal), their experiences once they returned home, the moment they obtained their first digital device upon return, their job search activities and experiences to-date, their general use of technology, and their expectations of what a digital literacy course would teach. At the end of the interview, I conducted a short demographic survey that included basic questions about gender, age, income, educational level, and prison facility type (state vs. federal). I read these surveys aloud to participants in anticipation of diverse literacy skills.

I conducted interviews in neutral locations such as libraries, fast-food restaurants, and reentry organization offices. Interviews ranged from 20 to 90 minutes, with the average length being 44 minutes. Participants were compensated \$30 for their time and transport costs.

### **5.1.1 Participants**

Initially, I sought returning citizens who had been released from prison within a year of the study, so as to ensure that their experiences of job search and re-integration were still fresh on their minds. Otherwise, I sought diversity – in terms of age, gender, and background – so as to cover a wide range of potential behaviors and experiences. Recruitment continued until saturation was achieved in the interview process – when I only rarely heard new cases of information from participants (e.g., different ways of learning job skills, different aspects of smartphone use, etc.) – even if the specifics continued to differ from person to person. Participants were recruited through five local reentry organizations (four nonprofits and one government agency) and snowball sampling.

Interviewees were pre-screened by phone to identify if they were 18 or over, were out of prison for less than a year, and identified as a returning citizen. I verified interviewees' prison time using Michigan's Department of Corrections Offender Tracking System after each interview session, which provides public records about state prison sentences. Ultimately, 23 returning citizens were interviewed for this study.

Of my 23 participants, 19 were men and 4 were women (women represent only 7% of the U.S. prison population [17], so these numbers are proportionately skewed toward women, but I felt that without at least a few women, I would have too little data about their experience). One of my participants was between 65-74 years of age; six were 55-64 years of age; eight, 45-54 years of age; four, 35-44 years of age; three, 25-34 years of age; and one, 18-25 years of age. Sixteen of the participants identified as African American, five identified as mixed race, one was White, and another was Hispanic. Ten of the participants' highest educational level was less than high school; eight had a high-school degree or Graduate Equivalency Diploma (GED); and five participants had tertiary degrees, with one person with a doctorate. In a stark reminder of the income opportunities available to returning citizens, eighteen of my interviewees earned less than \$20,000 a year, and seventeen were unemployed (there is overlap between these groups, as several participants earned income informally). Five participants made over \$20,000 a year. Twenty of the participants had been in state prison, two in federal prison, and one in out-of-state prison. Participants ranged in the nature of their convictions from controlled substance abuse, arson, assault, home invasion, identity theft, murder, perjury, possession of explosives, racketeering, robbery, sexual assault, and theft. Prison sentences ranged from 6 months to 45 years.

### **5.1.2 Data Security and Data Analysis**

Phase I interviews were audio recorded and transcribed. I followed a strict security protocol in handling participant audio recordings. All files were stored on the University of Michigan's cloud storage, which has been evaluated for security and approved by the University of Michigan's insti-



tutional review board to hold sensitive data. In all work downstream of transcriptions, participant names were replaced with codes: P1, P2, ... P23. For the Phase I data, I analyzed transcripts using thematic clustering and iterative summarization, with a focus on my research questions and content not revealed in previous literature. I worked with another research scientists to perform a preliminary clustering by reviewing the first four interview transcripts. Conversational segments focused on the same topics were physically cut and organized into piles; these segments often followed the question sequence in the interview protocol, but not always. Once the interviews were clustered in this way, each pile was read and re-read to identify common themes or emerging patterns across interviewees. This process was then iteratively repeated with the remaining interviews. During iteration, a few new clusters were created based on content that did not fit the original clusters. Ultimately, ten themes were identified, and these form the subsections and sub-subsections in the Phase I Findings section below.

## **5.2 Phase I: Findings**

In this section I review the findings from Phase I of this research proposal that were published in 2019 (Ogbonnaya-Ogburu et al., 2019).

Daily life upon reentry – challenges faced, career aspirations, and social support – was very much as noted in existing sociological studies of returning citizens [5, 20, 45, 79]. Below, I summarize these findings and move onto technology-specific issues which have not been detailed elsewhere.

### **5.2.1 Life Upon Reentry**

Participants identified a range of issues upon reentry including challenges with transportation (to places like parole check-in meetings and the grocery store), remaining sober, “staying out of trouble,” doing menial work at advanced ages, and dealing with boredom. However, consistent with prior literature, finding employment and maintaining health were the most salient issues [5, 20, 45].

Surprisingly, years in the prison system did not appear to dampen my participants’ career aspirations, though most were well aware of the difficulties attaining them. All participants aspired to be independent. And, differing from previous work, seven noted wanting to start a business of their own. A few seemed less interested in the nature of the job, as much in what it could allow them to obtain: a house or a car.

Still, participants were aware of the difficulty achieving their goals. Most participants acknowledged the reality that earning a living wage was itself difficult for them. I also found that very few participants mentioned formal education as a route to better jobs, and those who did had du-

bious notions of what constituted good education – some seemed to echo the marketing materials of predatory for-profit universities. I suspect these views were due primary to participants’ socio-economic backgrounds.

Among my participants, most had some form of social support and/or public assistance to assist with reentry, and this was highly valued. Families, intimate partners, and close friends were called out by almost all of my participants as providers of everything from housing, food, money, transportation, encouragement, and social engagement. This differs from previous findings, but the difference is likely due to my recruiting methodology (as noted later in Discussion).

At the same time, participants did not always feel positively about their dependence. Many mentioned not wanting to be a burden to their support systems. Several participants wistfully mentioned altered family dynamics (compared to their pre-prison life) due to parents passing away or parents not being present in their lives. Some participants also mentioned concerns about being patrolled by their family or lacking freedom within their family context.

## **5.2.2 Interactions with Digital Technology**

Next, I discuss how participants first came into contact with digital devices upon reentry, how participants learned to use the devices, and how participants used their technology.

### **5.2.2.1 Technology Ownership Access**

Returning citizens who served a decade or more in prison noted with surprise that smartphones, which had not existed before they entered prison, were now everywhere. And, all of my participants reported that they obtained a mobile phone from family or close friends soon after release – for most, this happened within days, even hours, of release. P5 (male, 25+, incarcerated for 4 years) mentioned a friend provided a phone within two weeks. P4 (male, 55+, incarcerated for over 40 years) mentioned obtaining his phone the day after release, accompanied by his wife. P2 (male, 45+, in and out of prison since 17) stated that he received his phone fully set up from his brother. For the most part, my participants had smartphones.

It was also true for most of my participants that their mobile phone was the *only* form of digital technology they owned. Quite a few noted, however, that they lived with family members who owned laptops, MP3 players, video game consoles, and other forms of digital technology that they had some access to. A handful of my participants reported owning their own laptop.

### **5.2.2.2 Learning about Technology**

My participants unanimously mentioned that they learned about technology from family, intimate partners, and friends. There was a strong reliance on younger family members or friends for

support on technical issues. Speaking about his grandson, P12 (male, 55+, in and out of prison since 39) remarked,

He is like 16. And me and him, we be joshing around. He likes to play games and stuff on it, and showing me how to do certain things on it. Because, you know, I'm kind of computer illiterate.

P4 (male, 55+, incarcerated for over 40 years) mentioned that his daughter and niece showed him how to “take pictures on it, how to download apps and get certain things or information... Google, YouTube – how, if you want to learn stuff, go to YouTube.”

But while learning from family, friends, and other social support was essential for basic digital literacy, it seemed to remain at a superficial or recreational level. Rarely did this type of learning provide skills to support job search. When I asked P2 (male, 45+, in and out of prison since 17) what items his girlfriend and nephew showed him how to use on his phone, he said,

Plenty of fish dot com. What else. Oh, how to use the internet, how to watch porn. The games, the little games you can get.

If friends and family were not sufficient for solid digital literacy, what about formal classes? A few participants mentioned seeking college courses to learn about technology, though only two enrolled. However, neither of them completed their courses. I suspect that there is a gap between what returning citizens can readily learn from friends and family, and the skills needed to access and keep pace with the formal digital literacy classes that are offered. P10 (male, 55+, incarcerated for over 30 years) said,

I went to a class... this summer and I thought I was gonna be able to do it. The lady was just... the professor, she was unforgiving, because she went, boom boom, boom, boom boom... I couldn't keep up with her... So, I went and I dropped that class.

### **5.2.2.3 Technology Use and Social Media**

Returning citizens used their smartphones for voice calls, entertainment, daily tasks (e.g., bus schedules), and occasional tasks relevant to job search. P2 (male, 45+, in and out of prison since 17) mentioned using their phone for calling and setting appointments. Somewhat rarer were consistent users of email and calendars. Most participants did not appear to make regular use of any specific mobile apps, but some participants mentioned specific websites such as Indeed.com for job search. In other words, with a key exception noted below, the everyday use of digital technology by returning citizens appears to mirror everyday usage by others.

When participants mentioned specific activities during my interviews, I sometimes asked them to show us what they did on their smartphones, and in general, they responded with a quick demonstration. These participants agilely performed basic functions such as unlocking the phone with a passcode, clicking on an icon, calling up a browser, or reading/sending text messages. A basic foundation of digital literacy appeared to be in place.

Only about half were *intentional* users of the internet – that is they used features such as online search or email, and vaguely understood that these activities entailed digital communication with infrastructure other than the phone itself. One participant was familiar with Google Assistant, and spoke of his first encounter with speech-based search with palpable awe. These participants primarily used online search, though sometimes the search seemed to be constrained to searches on YouTube. A few specifically mentioned YouTube as a site where they could learn new skills. For example, P4 (male, 55+, incarcerated for over 40 years) stated,

Yesterday I was on the phone, and I Googled rotors... My daughter got like a 2014 Malibu... So that's something I did, for instance. Like, I would know to do that now, as opposed to, I probably wouldn't have even thought about that [before].

One surprising finding was that despite tech-use patterns similar to mainstream use, returning citizens diverged when it came to social media. No participant frequented social media sites daily. There was hardly any mention of social media in my interview transcripts, despite direct prompts about it. It emerged that they had various reasons to actively avoid it. Some had specific parole restrictions on internet use. Others had restrictions on whom they could interact with, and social media was seen as a channel to transgress. For example, P14 (male, 45+, incarcerated twice since age 35) mentioned not wanting to stumble into inappropriate content while using the internet, so much so that he chose to stay with a feature phone. P10 (male, 55+, incarcerated for over 30 years) wanted to learn more about digital technology, but said that he did not want to become too attached to his phone. It seems possible that parole rules have spilled over into a general wariness of social media among returning citizens. P18 summed up,

I've never been into that social media – Instagram, Facebook. I don't event deal with it... Because everybody I know I basically can be in touch with. Like my family, I know all their numbers. I just never been into it really.

#### **5.2.2.4 Interest in Digital Literacy Training**

Finally, I asked participants whether they had any interest in digital literacy training programs. All participants responded with a resounding "Yes!" when asked. Most participants expressed interest in learning advanced skills such as graphic design, web design, or computing skills that

they thought could open the door to more opportunities. P13 (male, 55+, incarcerated for two years) said,

Maybe graphics... As far as designing a page or something like that. Like a page for a company on the computer.

Several participants stated that they wanted to learn everything there was to learn about computers. When probed, these participants were unable to unpack what they meant by "everything." P10 (male, 55+, incarcerated for over 30 years), referring to those with computer skills, said,

Everything. They do everything. They connect, and change over. They know how to go into a file. I don't know how to go into a file or anything of that nature. I don't know how to create a file. I need to know how to utilize a computer as it is.

Others were less ambitious but more specific. They wanted to learn basic skills such as how to set a calendar reminder, how to identify "useful apps," and how to search for specific information such as job opportunities.

### **5.2.3 Job Preparation and Job Search**

In this final section of my findings from interviews, I report what I learned about job preparation and job search. My participants all had employable skills, some acquired before prison and some during. These skewed overall toward menial or blue-collar skills, but not always – among my participants were people with skills in teaching, tattoo art, paralegal work, and theology. On the whole, however, they struggled to convert skills to income for a variety of reasons: discrimination against convicted felons in hiring, lack of familiarity with formal job application processes (both online and offline), and other miscellaneous obstacles to closing on a job.

#### **5.2.3.1 Prison Jobs and Learning Opportunities**

Prison itself offered opportunities to gain work experience. Most of the work was blue collar work performed in support of the prison system itself. Common jobs included custodian or porter in prison – the latter a kind of correctional officer's assistant position involving tasks such as cleaning or organizing. Other common jobs included cooking, plumbing, painting, being on the yard crew, shoveling snow, removing trees, fixing machinery, and doing laundry. Income was at very low prison rates – P5 (male, 25+, incarcerated for 4 years) noted, "It had to have been, like, cents, though, a day. Because the pay rate at the end of the month was, like, 26 dollars" – but they nevertheless could translate to work outside of prison. For instance, one of my participants was hired after release by McDonald's as a technician.

A minority of participants mentioned holding white-collar jobs while in prison. They worked as tutors, librarians, teachers, and paralegals. One participant noted that educational institutions that serve prisons encourage people to learn about the law so as to better navigate the legal system with which they routinely interact. There was also a mention of tattoo art as an income-generating skill practiced in prison. All of this work, of course, involves potentially employable skills.

And, though not formally work, some participants also mentioned “hustling” in prison as a way to earn income and food items. Hustles tended to involve some form of informal gambling or loan-making. For instance, P13 (male, 55+, incarcerated for two years) ran a lottery in prison:

I was the lottery guy. Okay, so what I did was... I would come to you and say, “Do you want to get in the lottery?” I had this big sheet that’s got like 200 squares on it. And you could pick out your squares. But each square costs you a dollar... But I’m accepting food only. So you might have a can of tuna, which is a dollar. Meat stick, bag of chips, cakes, or whatever. So you take that and I put it in this big bag. And then in a couple of days, this bag is full with like 300 bucks... There’s going to be a winner for 250. I’m taking 50 dollars off the top... I would do it twice a week.

Without conflating hustling with formal work, I can nevertheless surmise that the initiative and considerable social skills required to make such a scheme work might translate into skills for entrepreneurship, for which there was much interest.

It is also worth mentioning that prison frequently, if inconsistently, offers opportunities for formal learning. Many of my participants – especially those serving long sentences – took classes through formal prison programs, some of which were run in partnership with local colleges or universities. One impressive case involves a man who reportedly earned a doctorate in metaphysics while in prison. Another man incarcerated for over 40 years entered prison at a third-grade reading level but ultimately earned a bachelors degree in behavioral science. He reported that under rules that prevented the state from paying for more than one degree, he intentionally postponed graduation so that he would continue to be eligible to take courses. One notable theme among this group was that they would seek out prison transfers as a way to access different educational opportunities. For example, P10 (male, 55+, incarcerated for 30 years), remarked,

I was transferred about six times, and four of those times was on my own request because I was, you know I wanted to do something different.

These anecdotes emphasize success stories, but many participants who took formal courses reported that it was a struggle throughout – to sniff out educational opportunities; to gain permission to enroll; to remain in a course to complete it; and so on. P1 (male, 60+, incarcerated since 17) said, “I took every opportunity I could get.”

In any case, in terms of skill level, returning citizens appear to be reasonably prepared for the job market, though the degree to which their specific preparation matches their aspirations is highly variable.

### **5.2.3.2 Offline Job Search**

Prison systems often provide reentry classes and resources about organizations that hire felons. However, these were generally perceived by my participants as inadequate: They were out of date, focused on low-wage jobs, or simply insufficient in terms of the breadth and depth of knowledge or support they offered. Meanwhile, government and nonprofit resources for returning citizens are generally underfunded, so even when well-intentioned, they are unable to provide the intensive, individualized attention that returning citizens need [45]. As a result, returning citizens must rely on their own social networks and street smarts to find work, and they must do this while navigating some difficult constraints.

Among the constraints are parole restrictions that inhibit the type of work they could perform. This further narrowed job opportunities for some participants. For example P15 (male, 65+, incarcerated since 25) alluded to being geographically tethered during parole (referring to legally or electronically enforced restrictions on where some parolees can go):

I'm tethered right now. I'm more restricted. Tethered for 90 days. After 90 days I'd be on tether where I can move around and go anywhere I want to in [this state]... And after I get out there I'm going to get a job. I can get a job now, but there's so much restriction on it.

Other constraints are those imposed by family on whom the returning citizen relies. Several of my participants mentioned pressures to get “just any job,” even if it did not fit their self-image.

Whatever the additional difficulties, returning citizens must also navigate an unfriendly job market. Because so much white-collar work is dependent on a successful background check (that would instantly disqualify my participants), the obvious options available to them are low-skill jobs – manual labor, retail jobs, and informal work. These jobs in turn appear to be less systematic than white-collar jobs in being posted online or on government job-matching services. As a result, my participants relied heavily on their (non-virtual) social networks, with friends and family again figuring prominently. Almost all of my participants had stories about landing or hearing of jobs through word of mouth.

But direct, offline interaction with potential employers was so important that many of the interviewees developed strategies to increase such opportunities. Some of them mentioned meeting people on the street, at job fairs, at networking events, or even while driving on the road. When asked how he found employment, P14 (male, 45+, incarcerated twice since age 35) said,

Just going down the road... Yeah. I mean, I've been at a stop light before. So, you're sitting at a light, a truck pulls up. [You say,] 'Hey, you guys doing any hiring?' 'Well, yeah. What kind of work you into?' 'Dude, I can work for you two days [free].'

Several participants mentioned informal work as options, as well. For example, P13 (male, 55+, incarcerated for two years) was a mechanic who worked on cars for family and friends on an as-needed basis. Another example was P2 (male, 45+, in and out of prison since 17), a tattoo artist who took on informal jobs.

### **5.2.3.3 Job Search and Digital Technology**

Not surprisingly, most participants mentioned using their mobile phone to call contacts about job opportunities, to arrange meetings, and to follow up with potential employers. Most participants additionally used online search on their smartphones to search for jobs. The job-searching site, Indeed.com, was mentioned frequently in this context, and several of my participants showed us how they searched for jobs on their smartphones.

Critically, however, online job search was fraught with unexpected challenges, and the online application processes – which almost all of my participants had encountered – presented a impenetrable obstacle.

P19's case illustrates one of the problems:

I start typing. I'll start answering questions. Next thing you know, it will throw me off and it will switch over to another list of jobs. Next thing, it will start talking about educational opportunities... 'Are you interested in this?' Like, I don't want to waste time on education until I get a job first.

I believe that this was an instance of pop-up ads and predatory advertising, though it was not clear whether the participant initially landed on an illegitimate site posing as a job-search site, or whether he accidentally clicked on an exploitative ad from a legitimate site. Other participants mentioned dialog boxes asking them questions such as, "Do you smoke?", or "How old are you?" both of which seem likely to be illegitimate sites.

Some participants understood online job search to be a numbers game. P5 (male, 25+, incarcerated for 4 years), for example, searched for jobs in the Indeed app. He said,

I just apply to everything... They all look the same reasonable, I guess.

Going into this research, I imagined that writing resumes would be an important part of the job search process, but I found it to be a marginal issue for most of my participants for three reasons. First, the jobs they applied to often involved manual work that did not require resumes. P2, who



had skills in plumbing, dry wall, framing houses, tree cutting, and tattooing, explained he never needed a resume. Second, jobs were sometimes offered by people they knew. P4 (male, 55+, incarcerated for over 40 years) said that those who hired him were “people that I’ve known since I was a kid. Or like, my auntie or she knows people.” And third, several participants noted that before release, they were given reentry readiness courses where a resume was the final product, and which sufficed for most job search purposes. The resumes were typically prepared on a computer without internet access, or by an instructor who typed the resume on their behalf. P14 (male, 45+, incarcerated twice since age 35) said,

Well, [the prison] had computers, but only staff was allowed to be on the computers... I told 'em I couldn't read and write. So, they went over, they did everything for me, printed everything out and gave it to me.

Finally, I heard from several participants how they navigated disclosing their criminal background during interviews. In Michigan, as in many others, the Department of Corrections makes records of incarceration available online for public search. Participants varied in how they went about disclosing their criminal background but were all aware that their criminal history would come out eventually during their job search.

## **5.2.4 Discrimination and Disclosure**

While Phase I interviews were not conducted with explicit attention to race, race was impossible to ignore. Given the racial make-up of my participants and the racism and racial bias built into the history of incarceration in the United States [1], it was apparent that racial issues were unavoidable in this study. The issue of racial discrimination in job search also arose. The interviews in this study were thus further analyzed using critical race theory. Codes to highlight race, racism, Black life, and discrimination were used in this analysis. These findings presage some of what I found later in Phases III.

As a Black researcher conducting interviews, it should be noted that conversations about race may not have been as direct as accounts of racism can be explicit or implicit. I posit that participants may have assumed a shared understanding of discrimination, historical racism and institutional racism that exists in the Detroit metropolitan area (essentially, some participants may have assumed I was from the area and had many of the same experiences that they did) [133].

### **5.2.4.1 Discrimination Before Prison**

Participants reflected on challenges related to racism and other forms of discrimination before prison. For instance, P15 shared a story that is embedded in a national history of discrimination

and racism. He remarks,

I had a disability to learn [when] I left Alabama...so they put me in a special class and everybody at school was picking on the kids in the special class so I kept getting in fights...they put me out of the school....I came from a good family, I'm the only one in the family that had messed up.

While P15's story seems like a simple story about bullying, when adding context about his identity and history, the story becomes more complex. P15 was an elderly African American male who lived during the early desegregation of schools. P15 had a learning disability, and he doesn't reflect on a teacher or parent coming to his aid. Instead, he shares a story of being kicked out of school. One can wonder, if he was criminalized due to his race, or what dynamic was at play that he wasn't defended by an adult (e.g., teachers from a different racial background having lowered standards for P15, classism, etc.). Being placed out of school eventually reduced his job prospects, and further conversation from P15 revealed he didn't have a strong network of individuals that could employ him. In fact, when living in Alabama, he picked cotton with his family, demonstrating that his family most likely moved during the great migration to northern cities to improve their job prospects. Several participants shared similar stories of life before and during prison that reflected personal histories embedded in institutionalized racism.

#### **5.2.4.2 After Prison**

Employment discrimination also appeared during the reentry process. While forms of racial discrimination were not explicit during analysis, one was able to examine several intersectional forms of discrimination that impacted returning citizens - especially Black male returning citizens. In this section, I reflect on the forms of discrimination experienced by Black male returning citizens who participated in Phase I.

Discrimination appeared in the location of equitably paying jobs. Several participants remarked on having to commute to obtain a job. One can posit that due to Michigan's history of auto vehicle development, white flight, and redlining, segregation is acute, and jobs that pay a living wage are near white majority neighborhoods [97]. For example, P12 remarked,

Anytime I want to, that I got to go somewhere, I got to make sure that I'm up and ready, because I got to catch the bus. Which I really don't mind, because I hate asking anybody. And just getting myself familiar with getting around.

P13 highlights a combination of challenges with job search, but also concludes the location of the job being a challenge. He states,

A lot of them [jobs] are [learned about] just [by] word of mouth....The parole office, they've got a sheet that says felony friendly, places to hire felonies. But they don't seem to be hiring. And they usually are so far away.

What was also clear was that, due to the intersectional identities of participants and the lack of feedback from employers during the job search process, the specific reason that a participant may not have received a callback was unclear. For example, P13 ponders on why he didn't receive a callback. He states,

And the guy, I was telling him I had been a crane operator and I drove a big dozer [bulldozer], and this and that. And he's looking for a guy to drive a dozer [bulldozer]. So he took me out. Let me test drive everything and stuff. And he's like, "I like you man." He said, "I like you. As soon as we start hiring again, I'll make sure I call you." That's been about a month ago. I'm like, "Well when is you hiring again?" So he never called me back yet.

I inquired if he told the person they had a criminal past. P13 states,

Yeah. I put all of that on the application....I always put it on the application....Because I have experienced this. I didn't put it on an application, and I worked at a place for four days. When they found out I had a felony, they called me to Human Resources. They said, "You know you have a felony on your record?" Well, at that time it was three felonies on my record. And I said, "Yeah." And she said, "Well you didn't put that on the application." She said, "We're going to have to let you go." So I had worked two hours that day, but they paid me for the four. But I was like, oh I'm not doing that anymore.

It was not clear if P13's criminal past directly impacted their employment at the time of the interview, nor was it clear what other factors may have affected employment. Instead P13 was left without answers or an understanding on why they did not receive a call back.

Overall, discrimination discussed in Phase I demonstrated non-explicit examples of institutionalized racism, classism, ageism, and other forms of discrimination. It should be noted that, when examining conversations on race, the explicit and implicit bias expressed in the participants answers is one indicator of the challenges they faced, but others were left altogether unsaid. With that in mind, In Phase 3 (located in Chapter 7), I chose to focus further on discrimination during the job search process.

## CHAPTER 6

# Phase Two: Towards an Effective Digital Literacy Classroom Intervention

My goal for Phase II was to observe and understand on a first-hand basis what challenges returning citizens faced as it related to digital literacy for job search, in addition to learning what topics would be useful when developing a digital literacy for job search intervention. In this phase, I conducted a pilot digital literacy course using an action research paradigm to understand how returning citizens search for jobs; how returning citizens interact with digital technologies, both in general and specifically for job search; and how to design digital literacy programs for them.

In this chapter, I provide an overview of my methodological approach (overview of method, participant background, structure of design studio workshop, data security, and data analysis), and conclude with my findings for Phase II.

### 6.1 Action Research

Using an action research paradigm [57], I held a pilot digital literacy training course that occurred as six three-hour sessions over successive Sundays in the summer of 2018. The pilot intended to include four participants, but only three were ultimately able to participate. The classes were conducted at Bamboo Detroit - a co-working classroom space located in downtown Detroit.

Action research is a set of research approaches used to investigate a research problem and take action towards solving a challenge [57]. It often involves a cycle of inquiry where a researcher plans an intervention, acts or conducts the intervention, and reflects on the outcome of the changes. The cycle of inquiry is continuous until the goals of research and community outcomes are achieved in the study.

To prepare for the initial study, I found educational materials related to digital literacy and job search online. Using this information and the findings from Phase I, I created an initial course curriculum. Recognizing that some members of the returning citizen community may be functionally

illiterate, I made sure my curriculum was accessible by checking it against the Universal Design for Learning Framework [107]. Additionally, since many of the participants were from Michigan, I made sure the course was culturally and locally relevant by using examples that were based on jobs and people from the state of Michigan, especially the Detroit Metropolitan area. I served as the primary instructor for this course. To ensure I was collecting data throughout, I made note of observations, challenges, and opportunities during the course during breaks and after the course. I also recorded classes with my phone to support writing field notes.

Field notes were used to inform the creation of the next class the following week. After each class, I read through field notes and reflected on the instructional experience. As the goal in the reflection sessions was to refine the digital literacy curriculum in time for the following week, I analyzed the data by asking the following questions: (1) What, if anything, went well/poorly? (2) What were the possible causes of good/bad outcomes? And, (3) How could the content, nature, or organization of class activities be improved? The findings resulting from these reflections, along with the solutions I tried, are detailed in the Phase II Findings section.

### **6.1.1 Sub-context of Race**

Apart from the development of the curriculum created each week, I found myself, as an instructor, briefly discussing during sessions and breaks aspects of professionalism (attire, code-switching, etc.). Furthermore, recognizing that not everyone would fully embrace returning citizens and their intersectional identities, as I developed the final two classes, I began to critically reflect on the implications of these interconnected identities, including race, returning citizen status, class, and age. I grappled with how non-incarcerated individuals would perceive or interact with this vulnerable population based on their multiple identities - some of which are described in Phase I and the Literature Review. Given the inevitability of race and discrimination in these conversations, I discuss the sub-context of race in my Phase II.

I was especially attuned to issues of race as a Black woman researcher conducting research in Detroit, Michigan, which is a majority African American city with a complex history regarding race relations, African Americans, and job opportunities. At the same time, issues of race and racism are well-addressed in literature on reentry. With that in mind, as I discussed uploading a photo on LinkedIn, I talked about having a professional head shot, which may not appear to be a racist, classist, ableist, ageist, or a sexist topic. However, when I discussed what a good head shot looks like, I grappled with how an "unprofessional" head shot (e.g., poor lighting, looking not happy, "not welcoming") could hurt their job aspirations with a LinkedIn profile that could highlight their age and gaps in employment. I wondered if I should emphasize to the men in the class to smile more so they will be seen as "friendly" – and in doing so perhaps not reinforce racist

stereotypes of Black men being angry America [1]. I also wondered if my participants knew about research surrounding race and incarceration that I read prior to conducting this study.

Eventually, I asked my participants if they would be interested in learning about the research I've reviewed, my personal experience as a low-income Black person who has been working since the age of 14, and the personal stories I knew of Black men who have navigated finding jobs and who have never been incarcerated. I plainly asked my participants as the topic was not directly related to digital literacy for job search, but could be useful for job search in general. The participants agreed, and it was at this point, that I realized that I knew little about how returning citizens, especially Black men returning citizens, navigated discrimination due to race, or how they navigated disclosing their incarceration status in job search.

A limitation of this study is that field notes and memos were focused on participant observations and technology use and not the nuance and background of the instructor (myself) as it related to curriculum development.

Overall, given the focus of the research questions in Phase II, the sub-context of race may appear unclear to someone not sensitized to racial relationships in the United States and American history.

### **6.1.2 Participants**

Each interview participant from Phase I was also asked whether they would be interested in participating in my digital literacy course for Phase II. Out of those who responded positively (the vast majority), eight people were randomly shortlisted based on my perceptions of their textual literacy, smartphone ownership, access to a laptop, and ability to perform well in a classroom context. In screening for these traits, students were intentionally selected based on sincerity and desire to participate in the workshop, in recognition of the fact that this was a pilot, and in anticipation of the significant efforts I would need to make week-to-week to adapt the curriculum. I called each candidate in turn, and asked whether they could attend six Sunday sessions, and I accepted the first four who assented for inclusion in Phase II. Though not by design, none of the accepted participants held a job.

Participants were compensated \$20 per hour of class, both to assist with transportation costs and to compensate for their time, as it was time they could have spent searching for work, finding resources, or building networks. Field notes were recorded after each class, and most of the classes were additionally audio-recorded with permission of the participants.

I was the primary instructor, and I was assisted by one to three university students, depending on the week. The class focused on digital skills appropriate for a laptop. Participants were encouraged to bring their own laptop, but a laptop was provided to participants who did not own one. Overall

two of the three participants brought their own laptop, and one participant was loaned a laptop during the duration of the course. All participants owned a phone. An initial curriculum was developed based on insights from Phase I. However, following action research's plan-act-reflect cycle, each class resulted in findings that caused adjustments to future classes. In some cases, these changes were significant; this will be discussed further in my finding section.

### **6.1.3 Data Security**

Similar to Phase I, Phase II classes were also audio recorded and transcribed. I followed a strict security protocol in handling participant audio recordings. All files were stored on my institution's cloud storage, which has been evaluated for security and approved by my institutional review board to hold sensitive data. In all work downstream of transcriptions, participant names were replaced with codes (P1, P2, ... P23) to de-identify them.

## **6.2 Phase II: Findings**

I now turn to my findings for this study. The sections below represent several iterations of the plan-act-reflect cycle of action research, with each cycle intended to improve on the curriculum.

### **6.2.1 Initial Curriculum**

My initial curriculum was developed in response to the insights from previous work, findings from Phase I, and my desire to run the course in a participatory manner. I thus skipped introductory concepts such as "This is what clicking means," or "What is a website?" (which are common to existing digital literacy training materials) and instead designed each class around a practical job search or entrepreneurial goal that took simple digital skills for granted. My hope was to simultaneously teach job-search/entrepreneurial skills and advanced digital literacy. For example, for the first class, the goal was to open a LinkedIn account and complete one's own profile. This would serve as an entryway to social media with limited risk of breaking parole injunctions, while also providing job-search skills directly. A range of other such decisions went into the curriculum design. An overview of the topics that I *originally* intended to cover, numbered by week, is as follows:

- (Week 1) Introductions, open lab, LinkedIn. Goal: Start a LinkedIn profile and send messages to prospective employers.
- (Week 2) Open lab, basic job search skills. Goal: Learn to search for jobs on Indeed.com.

- (Week 3) Open lab, marketing and advertising, content management systems. Goal: Set up a simple personal webpage.
- (Week 4) Open lab, customer insight, ready-made online tools. Goal: Draft an online survey.
- (Week 5) Open lab, budgeting, spreadsheets. Goal: Start a monthly budgeting tool using Google Sheets.
- (Week 6) Open lab, networking, social media. Goal: Connect to non-felon, productive contacts on LinkedIn.

## **6.2.2 The First Class**

The intended goals of the first class were largely not met, and after it, I revised the remaining lesson plans dramatically with my collaborators.

### **6.2.2.1 What Actually Happened**

To begin with, only two of the students were able to attend. The other two were unsuccessful in their bids to have parole restrictions waived for the course. (The restriction was waived in time for the the third class for P3, but P4 was unable to attend any of the classes.)

I also found that starting with open lab exacerbated the problems of diversity in digital literacy, rather than alleviating them. P1 wanted to learn about Skype, because he had heard about making ‘free’ telephone calls. P2, though he brought a laptop with him, said that he did not know what he did not know, and wanted guidance on what he should learn first. He also expressed interest in writing a resume. His laptop flickered from the battery not holding charge. These issues required in-depth responses. Though 45 minutes were allocated to open lab, only minor tasks had been accomplished, issues (such as privacy settings) had been glossed over, and relatively little had been absorbed by the students.

Then, the students were brought back together for the session on LinkedIn. The hope for the end of the day was for the students to have set up with their own LinkedIn profiles and for them to send potential employers messages via the platform. In practice, P2 became stuck on account creation, and was ultimately unable to verify his account through either LinkedIn’s email or mobile-based verification methods. It eventually turned out that P2’s smartphone email app was not synchronizing correctly, but by the time that was understood, the class was over.



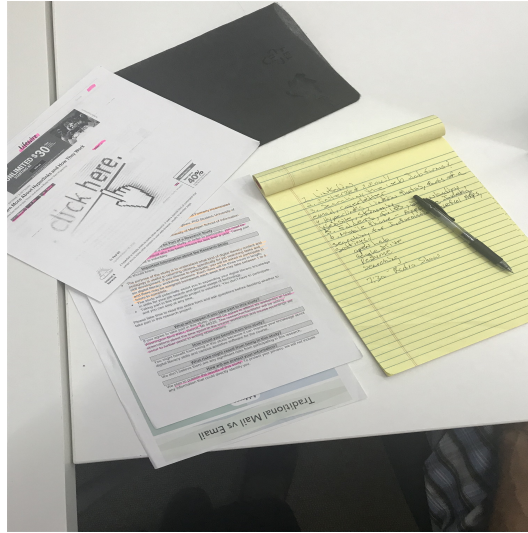


Figure 6.1: Student class notes from digital literacy classes

### 6.2.2.2 Reflections and Adaptations

The first class taught us a number of lessons: Parole restrictions require weeks to negotiate, so students must be given plenty of advance notice about classes. Having students bring their own devices helps them to become better acquainted with their own devices, but it increases time needed for troubleshooting. Smartphone literacy does not necessarily translate to laptop literacy – basic computer skills must still be covered for some groups. In fact, the simplified interfaces of smartphones arguably give users an illusion of digital literacy. In order to establish a common base of understanding, it is helpful to start with somewhat more structure (efforts toward participatory design can go too far). Despite that participants said in interviews that they rarely used a resume for job search, they still valued the knowledge required to write formal documents on a computer.

I applied what I learned and changed the ensuing lesson plans each session. I held open labs at the end of each class, not at the beginning. I slowed down the pace of the classes. I eliminated per-class goals, in favor of smaller tasks. I added modules on basic digital literacy skills as well as on requested skills such as resume-writing. All of these changes were incorporated by the second class.

### 6.2.3 Further Iterations

I summarize some of the other key findings and adaptations from Phase II here.

I found that some of my students were less-than-fluent readers, and none were fluent typists. I had students practice typing during the initial ten minutes of the class for the last three classes, and I adapted my instruction by verbally spelling out words during class demonstrations.

Students often clicked on ads and became lost in a maze of pop-up dialogues and predatory webpages. (I speculate that this was, in part, due to a combination of slow textual literacy among some participants, as well as lack of experience with critical media reading.) Lessons were adjusted to include a discussion of the Wild West that is the modern internet, as well as tips to avert these online traps.

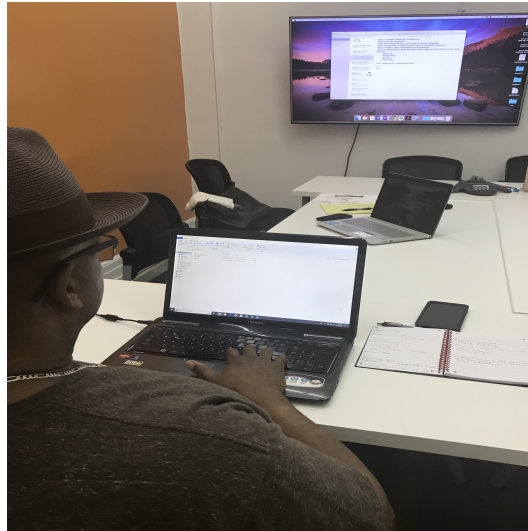


Figure 6.2: Student listening to lesson during the digital literacy class

I found that students often turned to their more familiar devices – their smartphones – even when their laptops were right in front of them, so I replaced the sixth session with a session on improving smartphone skills.

My final curriculum (Week 2 onward) differed considerably from the one I initially planned:

- (Week 2) Basics of Internet and email, open lab.
- (Week 3) Online search, online job forms, and cover letters.
- (Week 4) Typing, hyperlinks, online ads and click-bait, open lab.
- (Week 5) Typing, files, folders, uploading/downloading, open lab.
- (Week 6) Typing and smartphone literacy: Indeed.com app, web and voice-based search, finding apps, open lab.

Finally, the classes also showed me several points where participants experienced consistent challenges. For example, they had challenges with online forms, writing the substantive content in cover emails, and creating personal profiles, e.g., as on LinkedIn. Several of these challenges led to the creation of the scenarios found in Phase III.

## CHAPTER 7

# Phase Three: Designing Technology for Returning Citizen Job Search

The goal of Phase III was to explore designing technology for returning citizens and their social support to improve digital literacy skills for job search. In addition, this study investigated how Black returning citizens perceived racial and racist experiences in their lives and how that might influence their relationship to technology. To address these goals, I implemented a design studio workshop with returning citizens and their social support. Social support members were individuals who had experience working with returning citizens with their digital technology needs. Social support members were explicitly included based on my findings from Phase I, which demonstrated the importance of social support for returning citizens when acquiring digital literacy skills.

In this section, I provide an overview of my methodological approach and end with key findings.

### 7.1 Design Studio Workshop

I chose to conduct a design studio workshop to address the following research questions: How can digital technology be better designed to support returning citizens and their social support in digital literacy skill development for job search? What design features are desired by returning citizens and their social support with respect to online job search? How is the above question affected by considerations of returning citizens' criminal past, race, and racial discrimination?

Design studio workshops provide researchers and participants the ability to collaborate on the ideation and development of tools and resources [69]. I partnered with the returning citizen participants and their social support to iterate on design ideas in the hopes of improving their digital literacy when it comes to job search. To ensure all content was accessible and relevant to my research questions, a pilot workshop was conducted with the community research advisory board I formed to test all parts of the study.

### 7.1.1 Participants

For this study, participants were recruited from five local reentry organizations (four nonprofits and one government agency), as well as through snowball sampling. All participants were prescreened over the phone to determine eligibility, with returning citizens being asked about their incarceration history and social support members being asked about their experience teaching digital technology to returning citizens. In total, eleven participants were included in the study.

A total of six participants self identified as returning citizens. Of the six participants, only five individuals fully completed their survey responses. Below I describe the demographics of my returning citizen participants. Returning citizens who participated in the study were released between January 2018 and December 2022. Individuals were initially incarcerated between 1977 and 2017. All of the returning citizen participants were men. Five of the six participants self-identified as Black or African American, and one participant self-identified as White. Two participants' highest level of education was an associates degree; two participants had some college credit but no degree; and one person only had a high school degree. Income levels also varied, but didn't necessarily match education level. Family members were identified as the social support who most often worked with the returning citizen participant on digital literacy related topics. Most of the social support members had the same racial background as the returning citizens. One person noted having a cognitive disability.

Next, I describe the demographics of the social support members in the study. A total of five individuals participated who identified as a social support member. Social support participants ranged in age from roughly 25-74 years old, with an average age in their low-to-mid 50s (Survey data was recorded by age ranges, so the precise ages of participants were not recorded.). A majority of the participants were Black or African American, one person self-identified as White, and one person self-identified as having a mixed racial identity; 4 out of the 5 social support participants self-identified as female, 1 self-identified as male. Two individuals' highest level of education was a high school diploma or GED. Another two individuals had a master's degree, and one person had some college credit but no college degree. Education levels tended to correlate with income levels. Both participants who had a masters degree earned an annual income between \$50,000 to 74,999, next was \$35,000 to \$49,999 by the individual who had some college, and the individuals who had a high school degree had an income range between \$20,000 to \$34,999 and less than \$20,000. The relationships they had with their returning citizen counterparts included mentor/reentry specialist, son, and colleague or client. Four out of five of the social support participants worked primarily with an African American men returning citizen. Two of the social support participants mentioned working with a female, with one person noting they work equally with men and women returning home. One person noted having a mobility disability.

All participants were compensated \$150 for the workshop. While social support members were

typically not required to attend the focus group sessions, several of them provided the transportation for the returning citizen participants. With that in mind, everyone was paid the same incentive to complete the study.

## **7.1.2 Structure & Implementation**

I ran two two-day workshops consisting of five participants in the first session and six participants in the second session. The first day of the workshop was a design studio workshop; on the second day of the workshop, returning citizen participants were asked to return for a critical consciousness focus group. With the exception of one participant, all returning citizen participants returned for the focus group.

### **7.1.2.1 Room and Equipment Setup**

Participants were strategically placed around the workshop room on the first day. If a participant came with their social support counterpart, they were encouraged to sit next to each other near a recorder. If a returning citizen did not bring their counterpart they were partnered with a social support member who didn't bring their returning citizen counterpart. Similarly, if a social support member did not bring their returning citizen counterpart to the workshop they were partnered with a returning citizen participant who did not have a partner. Participants were partnered in this manner to encourage honest conversations about teaching and learning digital literacy for job search concepts. During the second day, returning citizen participants sat around one table (at a comfortable distance due to COVID-19 protocols). A recorder was placed in the middle of the table to conduct the critical consciousness focus group.

Additionally, on the first day, each participants was given a consent form, pencil, crayons, sheets of unlined paper, printed images of various technology (e.g., television, radio, phone, and monitor), markers, a fillable workbook containing each scenario and discussion question, and a printed PowerPoint presentation about the workshop and research team.

### **7.1.2.2 Workshop Day 1 - Design Studio Workshop**

On the first day of the workshop, returning citizens and social support attendees participated in a Design Studio Workshop at the Michigan State Appellate Defender Office. During the design studio workshops, participants were given guided discussion questions and scenarios and asked to ideate on the challenge presented in the scenario (See Schedule in Appendix). In this section, I discuss the structure of the first day of the workshop.

Prior to starting the design studio workshop, I conducted an ice breaker, provided background information about the workshop, and held a conversation about the workshop values. At the be-

gining of the workshop, I introduced myself, and I had everyone else introduce themselves. Next, I conducted an icebreaker where participants shared what they hoped to get out of the workshop and what they felt would not be helpful from the workshop. After hearing everyone's responses, I shared a PowerPoint Presentation that welcomed everyone, shared the values of the space, explained what is a design studio, and answered any questions. Afterwards, I introduced the schedule of the workshop. Finally, I reviewed and collected the consent forms.

To ensure all participants understood the concept of a design studio workshop, I demonstrated an example scenario on brainstorming ideas about making shopping easier. During the example scenario I modeled out loud what a participant would be thinking and doing for the scenario. I emphasized to participants that creating was not limited to pen and paper and that all methods of contribution to the conversation were encouraged (writing, drawing, talking, video recording of dance, etc.).

To begin the design studio workshop, participants were presented with three different design scenarios (as specified in 7.1.3). The goal of the design studio workshop was to understand the ideas of returning citizens and social support members regarding scenarios based off of experiences shared or observed in Phase I and II.

Each scenario was presented to the group followed by several discussion opportunities both in pairs and with the entire group. I read the scenario and prior to providing participants the opportunity to start creating I asked if they had any questions. If no questions were asked, participants were given five minutes to create. After the five minutes, I asked the room if anyone had encountered a scenario like this, and if so, what did they find most difficult about it? I also asked if they could imagine using what they created with their support system or returning citizen? With the exception of scenario three, several participants affirmed that the scenarios were familiar and that they had experienced something similar.

Soon after, participants were asked to share their designs with their partner for two minutes. Their partner was also given two minutes to share their ideas. Afterwards, all participants shared their top design to the room, and other participants provided feedback based on the values initially introduced at the start of the design studio session.

Finally, at the end of Day 1 of the workshop, closing remarks and summary discussion items were presented to participants. At the end of each session all participants were encouraged to fill out an evaluation of the overall workshop.

### **7.1.2.3 Workshop Day 2 - Critical Consciousness Focus Group**

On Day 2 of the workshop, I conducted a focus group to further understand information preferences and returning citizens perspectives on job search, discrimination, and digital literacy. All returning citizens participants were invited back for the second day of the workshop. All but one returned

– the exception was a participant who could not attend due to transportation challenges. I did not directly request a specific racial or gender demographic for the second day of the workshop, but the focus group reflected the demographics of the workshop, which had a majority of African American men returning citizens. Rapport was developed the previous day, which provided us ample time to dive into the focus group. The focus group was scheduled for 1 hours and 30 minutes.

I implemented critical consciousness as a method for the focus group in an effort to support involved conversations about race. Researchers have called for the use of critical consciousness tactics to challenge inequities faced by marginalized communities, especially as it relates to job search [32]. Critical consciousness is a pedagogical practice that has roots from Paulo Freire’s work in *The Pedagogy of the Oppressed* [46]. Critical consciousness provides participants the ability to reflect on discriminatory experiences. As a researcher, my role was to facilitate the conversation while modeling reflection alongside the participants [39, 76]. It was not to lecture them or relate my opinion.

Questions were set up for individuals to identify and state who, what, and why about their experiences. Participants were encouraged to share more with probing questions like, “tell me more,” “say more,” and “can you tell me what this would look like in a different culture,” etc. Additionally, for each experience, participants were asked about their emotions (how did this make you feel), thoughts (what do you think about this), and actions (what actions did you take or plan to take). As experiences were discussed, I introduced a term or labeled the experiences that focus groups members either confirmed or denied. This differs from traditional pedagogical literature that calls for the introduction of terminology at the beginning of a critical conversation. Terminology was introduced later in the focus group to provide participants space to unpack and discuss racially related incidents in their lives. At the conclusion of the conversation, the I held a broader discussion on social action based on the experiences discussed in the focus group.

Two critical consciousness focus groups were conducted with a total of five African American returning citizens in attendance. Sessions were recorded with a recorder in the middle of the table. Participants were encouraged to engage, not engage, or remove themselves during the session as they wished.

#### **7.1.2.4 Data Storage and Security**

Recordings and field notes were captured throughout the workshop. On Day 1 of the design studio workshop the session was voice recorded to ensure all notes and observations were accurately captured. Returning citizens and their social support sat at tables together during the design portion of the workshop where a recorder was placed on each table to record participants. Day 2 of the workshop was also voice recorded using one recording device because only the returning citizen

participants were asked to return. Lastly, field notes were written after each workshop session.

Data obtained at the design studio workshops were recorded and transcribed. Data was anonymized using strict security protocol for handling participant audio and film recordings, and it was stored on my institution's cloud storage, which has been evaluated for security and approved by my institutional review board to hold sensitive data.

#### **7.1.2.5 COVID-19 Safety Protocols**

During the design studio workshop the United States Center for Disease Control optionally recommended the use of masks indoors by individuals vaccinated from COVID-19, and a mask was highly recommended if an individual was not vaccinated. To ensure the safety of participants, COVID-19 Safety Signage with safety recommendations was placed at the entrance and at the check-in table at the front of the conference room. Participants were encouraged to use hand sanitizer prior to checking in and were given a free surgical face mask. Participants were also given their own pen and pencil, papers, and workshop packets. Additionally, participants were grouped with people they knew.

### **7.1.3 Scenarios and Focus Group Design**

In this next section, I provide a detailed overview of the scenarios and focus group that occurred during the design studio workshop. Additional details of the workshop – including the schedule of the workshop – can be found in the Appendix.

#### **7.1.3.1 Scenarios**

Scenarios were designed to gradually bring up the topic of race. Scenarios one and two were based on findings from Phase I and Phase II [94]. Additionally, both scenarios indirectly discussed race (motivated by the understanding from critical race theory that racism is ordinary). Scenario three was created in order to posit a scenario where a returning citizen and social support would have to directly ideate about a challenge dealing with race.

Scenario one stated, “You are applying for a new job at Ford Motor Company. You’ve found the job online, and see the form for applying. You are unsure what information to put in the form to highlight your experience in the best possible manner.” Scenario One was based on Phase I and II findings of participants having difficulties applying to jobs within a job portal. Additionally, it was based on Phase I findings that family members are important when it comes to learning digital literacy skills. All of the social supports in the room had experience working with returning citizens for job search.



Scenario two stated, “You’re writing an email on your mobile phone to a new employer or a potential customer for your business. You’ve drafted the whole email, but you’re not sure if it’s written well. You want to write an email that will have a strong impact on the reader.” Scenario two was based on findings from Phase I that showed how returning citizens quickly obtained a smart phone and would often, initially, use it to connect to employment opportunities.

Lastly, scenario three was based on the awareness that returning citizens were reluctant to engage with social media. Additionally, it was the only scenario that directly discussed race and racism. Scenario three stated, “You’re setting up your LinkedIn profile. (LinkedIn, in case you don’t know, is a professional networking website where employers and potential employees can learn about each other.) The site prompts you to upload a head shot. But, you’ve heard that people sometimes don’t get call backs from jobs they apply to because of their race, so you’re wondering about whether you should upload a photo. How would you like the LinkedIn website to handle this overall scenario? Is there anything that LinkedIn could do that would make it easier for you to decide how to respond?”

Scenarios were read aloud and accompanying artifacts were provided to participants to support in the brainstorming process. Additionally, supporting questions were provided to participants to help them brainstorm ideas. Scenarios and accompanying questions can be found in the appendix.

### **7.1.3.2 Critical Consciousness Focus Groups**

Researchers have found that conversations about race are not always explicit [81, 93]. With that in mind, each of the scenarios slowly introduced the topic of racism and discrimination, with the first scenario having no apparent connection to the topic and the second two scenarios driving closer to the topic of racism and discrimination in the job search process. Additionally, scenarios were designed keeping the tenets of critical race theory in mind, specifically the idea that racism is ordinary (not always explicit) and not an aberration.

Focus group questions were developed using critical consciousness based on the findings and recommendations from education and healthcare related research that encouraged participants to have conversations around race [40, 66]. Participants were asked open-ended questions, and race-related terminology (e.g., stereotype threat, internalized racism, institutional racism, microaggressions, etc.) were later introduced based on the examples shared during the focus group. The session concluded with participants unpacking and thinking of action oriented next steps from the conversation.

### **7.1.3.3 Room, Equipment, and Participant Setup**

To ensure participants were mindful of their identities during the workshop, demographic information was collected at the beginning of the workshop. Researchers have found that prompting an individual to be mindful of their identity before conducting a task that is negatively stereotyped about a specific group can cause stereotype threat or the cognitive fixation of one's identity in relationship to a task during the actual task [128].

Additionally, participants were encouraged to create however they felt comfortable [108]. This included drawing, talking to the microphone, writing ideas, etc. Drawings of various technology were also placed on each table as a place to scaffold participants' ability to create new ideas.

### **7.1.4 Data Analysis**

In total there were four recorders on Day 1 of the workshop located around the room. On Day 2 of the workshop, one recorder was placed on the table around the returning citizens who returned for the second day of the workshop. During the second two-day workshop series, two of the four recorders recorded only the second half of the first day of the workshop. With this in mind, paired conversations were not analyzed as not all conversations were captured, instead, analysis was based on group discussions captured from my recorder (the facilitator) and on participant artifacts.

All data (workshop audio recordings and participants' drawings) from the design studio workshop were analyzed using thematic clustering and iterative summarization, with a focus on my research questions and content not revealed in previous literature [111]. Additionally, I used member checking [10] during the workshop to confirm interpretation of findings. In collaboration with my nonprofit partner who attended all of the sessions and self-identified as a returning citizen, we developed our initial codes/themes after each session. Next, open coding was conducted when analyzing all of the workshops to understand recurrent themes. Drawings were also analyzed based on commonality of recommendations, features, and characteristics. Opening coding of workshop data and the initial themes discussed after each workshop were brought together to determine the final set of findings. Member-checking was again used after the final set of findings were determined by members of SADO and by the community-research advisory board members who attended the workshop to confirm analysis.

## **7.2 Findings**

In this section, I review how returning citizens conceptualized the term digital literacy, how they navigated currently online job search systems and tasks (e.g., writing an email, submitting an online application, etc.). Next, I discuss participant design preferences as it relates to seeking

out help for online job search tasks and their current workarounds for challenges. I then discuss how African American men returning citizen experience employment discrimination, and I explore their strategies to navigate challenges. Lastly, I conclude by providing design recommendations shared by participants to address challenges they face in digital literacy for online job search.

### **7.2.1 Definitions of Digital Literacy**

Prior to starting the design studio workshops, participants were asked to define digital literacy in order to identify their understanding of the term. Upon completion of this activity, participants were introduced to the American Library Association's definition of digital literacy to ensure everyone had the same definition of digital literacy for the workshop. Participants conceived of the term digital literacy in ways similar to the American Literacy Associations' definition - "the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills" [2]. Participants were able to build off each others definitions. For example, RC7 responded "to communicate technologically" as their definition for digital literacy. Next, S6 defined digital literacy as "using technology not only to communicate but to maintain records, how to apply for jobs, or public assistance, bank accounts, pay bills,...all that stuff." Participants were aware of what they did not know in terms of digital literacy and understood why they needed to know it.

Overall, participants' definitions of digital literacy was similar to those of standard definitions. No one in the study explicitly mentioned or discussed the implications of discrimination or disclosure when it came to learning about digital literacy for job search.

### **7.2.2 Preferred Sources of Help During Online Job Search**

Returning citizens expressed clear priorities about who and what they preferred when seeking help, with strong preferences for human, synchronous help. Their order of preference was tailored support by their social support, support from a trustworthy person with relevant knowledge, support from anyone willing to help, and finally digital (robotic or AI) support. Below, I review the various types of support, in the order of most preferred to least preferred, as was expressed by participants.

First on the list was in-person help from friends and family who know the returning citizen participant well and can tailor their support. This finding was echoed in survey data when returning citizens listed whom they often go to for support, and it was also echoed in the design studio workshop conversation. For example when I asked the entire group their preferences of support, RC2 described what he felt most other returning citizens wanted, including himself,

They [returning citizens]...need somebody to hold their hand....if they go into a company, you fill out application. I gotta take [SS1] with me. I want her to sit right there.

And, [help me to understand] what is right there (while grabbing the example online application form), you know, then she gonna tell me what to fill in.

During member-checking in Workshop 1, four out of the five participants stated they preferred to work with a person first.

Next are people who have relevant knowledge they can trust (e.g., someone with inside information about a job, or someone who knows how to write cover letters), even if there is no personal relationship. For example, RC3 shared as his best idea the creation of a tool that provided job-seeking returning citizens with external support from college students who obtain college credit for providing feedback (Figure 7.1). When asked if a robot would be ok to replace a human being in the idea suggested by RC3, he responded,

Then that would be unfair because in that regard, uh, it's supposed to be a platform where the college student is getting the credit and you're supposed to be dealing with a human being that can make real life suggestions. So a bot might tell you anything. It'll just tell you, whatever's been programmed to tell you, but a human might look at it and say, "Hey, you know what, normally we wouldn't say this in a professional email, but given that you are going into this particular field, this is okay for this field."

In a different idea for scenario 2, RC5 also emphasized the importance of interaction with a person. RC5 stated, "I had one idea... I wanted it [my email] proofread by a smart person or a person with knowledge about how emails are made." RC5 further highlights that a knowledgeable person was preferred when given the opportunity.

After that, returning citizens preferred any support from people who were willing to help. For example, when asked how do you currently obtain assistance for digital literacy, RC7 stated:

...where do I get it [help] from? Uh, OCC (Oakland Community College), the library, uh, the tutors there. Okay. The people at PNC Bank. Okay. Everybody that know me, know what it is. So anybody, anyone, my laptop is here now, everywhere I go, I'll leave here and go to Starbucks and whoever near me, [I'll say], 'excuse me, can you show me?' And then that's that, you know.

RC2, echoed a similar sentiment when he said,

Yes. Uh, her friend (SS1), [SS8] says help me...the girl right across around the corner who works at the Dollar General has helped me a little bit.

I've been to about four Detroit public libraries where I get a little help there....But you know, the librarian, they can't devote all of their time just to you....So I get a little help here and there, but I, I want somebody who could sit down with me.

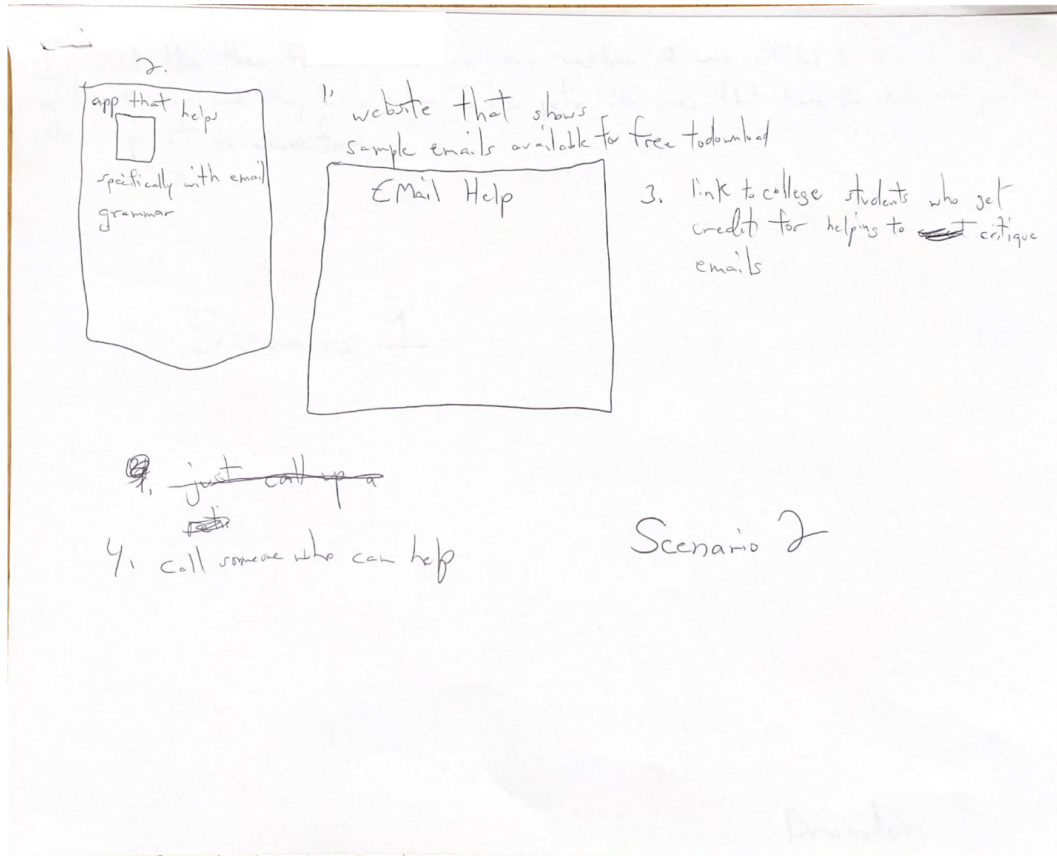


Figure 7.1: A paper with writing on it showing RC3's multiple ideas of obtaining assistance, which include (1) a website that shows sample emails available for free download, (2) an app that helps specifically with email grammar, (3) an app that links to college students who get college credit for help to assist and critique emails, and (4) calling someone who can help.

It should be noted both of these participants did not have familial social support closely available, which one may posit, may have been the reason they turned to strangers.

Overall, most participants preferred assistance from another person, however a small number of participants suggested using some form of technology to obtain digital literacy support for job search. For example, two participants (RC11 and SS10) collaborated and recommended the creation of a virtual assistant to assist with filling out online applications using video and voice (Figure 6.2). SS10 describes it by saying, "we collectively came up with the video...like a virtual assistant that was like, what were the last three jobs?" While bots and AI tools were rarely suggested as ideas or current practices, this idea shows that some participants did see digital assistance tools as a viable option for help.

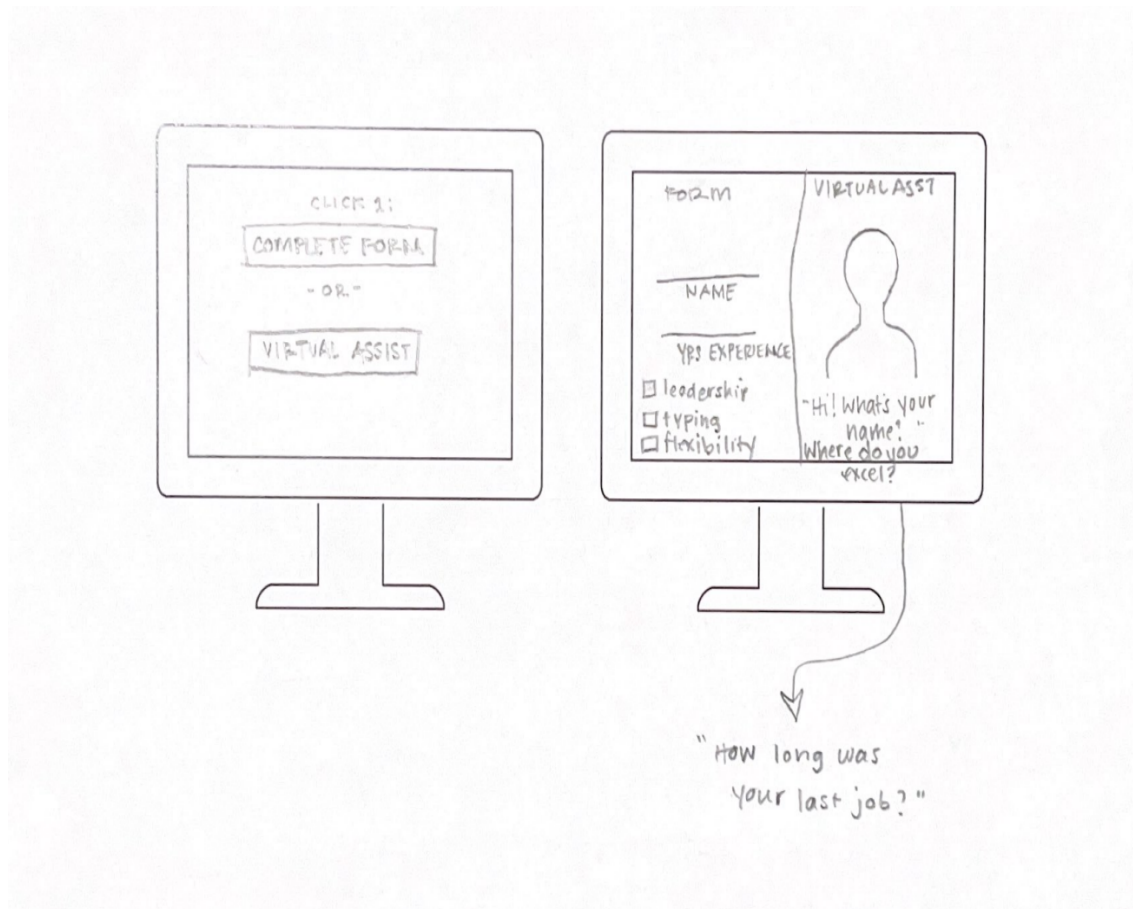


Figure 7.2: Image of virtual interviewer made together with a returning citizen and social support pair. On the left of the image is a computer screen where a person has the option to complete the form using text entry or using a virtual assist. On the right side is the virtual assistant beside the application form. The virtual assistant is saying "Hi! What's your name? Where do you excel? How long was your last job?"

### 7.2.3 The Frustrations of Online Forms

Participants mentioned several areas of frustrations as it relates to the online job application. Some of these challenges included confusion regarding two-factor authentication, form fatigue, and cautiousness about sharing personal information. In this section, I highlight examples of these challenges.

During the discussion of an example online job application, RC3 discussed one of his earlier experiences filling out a job application. He stated:

I couldn't figure out how to input the information [to log-in]...they would send me this text [confirmation] and then...they would send me an email. So I had to come out of there [the company website], go to my email and I couldn't figure out how to get back

in once I would come out to get that email....

His comment highlights how two-factor authentication could provide additional obstacles to individuals who are trying to become digitally literate for job search.

RC11 highlighted the frustration of form fatigue – the exhaustion and frustration of filling out multiple, redundant forms. He states,

I was on the job search the first, like whole month, first month, second, second month too, it was just excessive, like doing the same, asking, answering the same question. Every time, like I have all my information right by me to answer all these little personal questions and it's like a hassle to like, it's just like very repetitive.

RC11 highlights how many job application systems from different companies require returning citizens, and job seekers in general, to constantly enter the same information as they apply for various jobs. In response to form fatigue, SS6, who was also formerly incarcerated, shared how she has a process to copy and paste personal information into an application form.

Lastly, SS8 shared an obstacle faced by support system participants assisting returning citizens in job search, which was to assuage the concerns of their returning citizen counterpart on whether to share information or not on a job application. SS8 states,

...I found whenever I was helping people with applications [they ask], “why do I have to give my email? Why do they need my middle name? Why do they need this? Why do they need this?” Because when they went to prison, it was you walk in and got it. And you talked to the person to get the job, the idea of having to give all this to a computer for a lot of guys that I worked with was very frightening, cuz it's their personal information and somebody might be trying to snap [ or take] it.

SS8's quote highlights that teaching digital literacy for job extends beyond data entry, and also includes critical thinking skills of knowing what are appropriate responses in a job application form.

Overall, participants had a number of frustrations with the online job search process. Participants highlighted how tasks like using two-factor authentication, consistently sharing the same information, and the hesitancy of what to share when engaging with online forms made the task of applying to jobs online challenging.

#### **7.2.4 Tactics Used to Work Around Challenges**

The workshop revealed many workarounds for addressing the challenges of job application form-filling. Many of the ideas were proposed by the social support participants, some of whom were

themselves formerly incarcerated. As such, these workarounds seem to come from individuals experienced with the job market. These suggestions included writing “none” when an individual does not have additional information to share, writing “will discuss at interview” when employers request information about criminal background, and using creative language to describe jobs and positions. For example, SS6 describes advice she typically gives to the (primarily women) returning citizens’ that she works with as it relates to filling in job application fields. SS6, who was also previously incarcerated, states,

And if they run into something where, like you said, looking for experience, you have none type “none” [and] that will satisfy the field, you know, unless it’s requiring a certain number of characters. And in that [case] I put “none” and give it periods all the way till you give them enough characters and move on to the next one.

The social support participants were asked what advice they usually give returning citizens as it relates to handling gaps in employment. SS8 shared advice on what he tells his returning citizen clients when faced with an application form question that is required but they do not have a response. He remarked,

I just always tell ’em to put zero for zero [knowledge or experience]. Just write zero. I mean, what else do you have to put there? Just put zero.

Later in the workshop SS6 further shared the advice she uses and provides to other returning citizens as it relates to discussing one’s criminal background. She stated:

Well, like I say, when it comes to the felony question, I never answer yes or no. I’d say ‘will discuss at interview.’ Cause if you not gonna talk to me, there’s no point in telling you my business.

For returning citizens and their social support who had experience applying to a job using a resume, they all recommended the use of a functional resume to reduce highlighting gaps in employment and potential questions from an employer. RC3 stated,

You know, there are skills that you learn depending on where you’re at, and then you just left, we call it like a functional resume. You would leave the dates themselves empty, but you would put on there, what job you had, what skills you learned... So you wouldn’t make it seem as though it was much different than other resumes... And, our employee would be the state of Michigan.

SS1 further emphasized the importance of a functional resume when she stated,



They have to have a functional resume because the gap in time from the last time they were out and then not working... It could be much of 10 years and it's hard to get hired when you have such a large gap. [Mimics an employer asking a question:] "What was you doing?" That's their next question. And, you really don't want to answer that.

Overall, while there was no agreement about what actually improved the chances of an interview or job offer, it was apparent social support participants provided advice based on their own experiences. Though these comments were made in the context of tedious form-filling, it is noteworthy that all of the advice focused on trying to address the anticipated bias against people with a conviction history.

## **7.2.5 Bias and Discrimination**

All returning citizens in the study discussed experiencing bias and discrimination; however, it was not always clear as to which aspect of their identity this discrimination was related. To the extent that they discussed race specifically, participants talked about racism as an ordinary occurrence in a matter-of-fact manner, both as experienced in prison and afterward. At the same time, their discussion of racism tended to focus on overt racism though several of the discussion topics exemplified institutional or internalized racism. These conversations about racism were also not related to a specific technology. In this section, I review conversations about race, bias, and discrimination as it relates to the job search process, and I discuss the implications of this bias.

### **7.2.5.1 Racial Discrimination**

Returning citizens had many stories of racism, though they did not express an understanding of all the ways in which racism may have entered their lives. Focus group participants highlighted stories of experiencing racism while incarcerated in prisons located in rural areas that had a predominately white correctional officer population. In discussing the idea of institutional racism, RC5 was very aware of his experiences of racism while in prison. After being quiet, and standoffish, he was eager to share his experiences. When asked if he experienced institutionalized racism, he stated that he could get a PhD in racism, specifically, he said,

It was like you just smelled it [racism] in the air. Like it was a bunch of racist stuff going on. You could talk to, uh, have conversations with the COs [correctional officers] and you could tell... They are slower to get to fights... And even if you get jumped, it's like they are just walking... They lie on tickets... They set people up.

Participants reflected on and shared their observations of discrimination they personally experienced and discrimination experienced by those around them. RC9 discusses their perception of

applying for a job in competition with a returning citizen who is white. RC9 states,

Because say for instance, me and a white individual came in here for a job interview, don't know the background, both came from the joint. Both may have similar crimes. When you go in there and they ask you, "Why do you think you deserve this position? Or, What can you bring to my business to accelerate?" And I might give the proper answer. Guarantee it is like, okay, yeah, he gonna take my business to the next level. [But] Johnny [a name of a white man] here going in there and say[s], "just because I need a job," due to the fact that the man is hiring, [The hiring manager] is probably more than likely [going to hire] the white man.

RC9 shows that they believe that their white counterparts may obtain more empathy than themselves.

Furthermore, participants in the focus group and design studio discussed the location of jobs and the discrimination that may happen when a person learns what side of town you may be from. While location of jobs may be determined by zoning requirements, one must remember that Detroit has a history of redlining. Communities that are often predominately African American and low income, have low housing prices that were directly affected by redlining. These same communities often faced blight, food deserts, and lack of care. Children who come from these neighborhoods often are not well resourced as other neighborhoods because schools are funded by the income taxes of the nearby neighborhoods. All of these economic factors can affect the commercial opportunities within these neighborhoods and the likeliness of finding a sustainable employment opportunity close to home.

RC7 shares their experience of having to drive further from home to obtain job opportunities in a city that doesn't have strong public transportation. RC7 states,

RC7: I mean, in addition to that, all the jobs worth having are out in white neighborhoods and owned by white people.

Facilitator: What are the jobs worth having?

RC7: Having jobs that pay over \$15?

Facilitator: So, gimme some examples.

RC7: High paying jobs. Jobs that pay you enough to where you can make a living instead of having to hustle and have the job, for example. Uh, uh, managerial jobs at, uh, corporations, all of them, okay, are in Auburn Hills, Rochester Hills....

The point was made clearer that the jobs worth having were largely located in the whiter and richer parts of Michigan; making them difficult or impossible to get to.

It is important to note, during both workshops, social support participants often discussed with returning citizens what was socially appropriate when navigating the online job search.

RC2 provided a great summary of his impression of what returning citizens needed to do. He stated,

That's what we call successful assimilation....Well, that's the goal of education. Mm-hmm the goal of education is to assimilate you into society's workforce...to make you a useful citizen....If you're not assimilated, then you going to stay marginalized. You're gonna stay outside the mainstream.

During the second workshop, I bluntly asked returning citizen participants if they felt they needed to change themselves after leaving prison to adapt to society. Most provided a head nod or other non-verbal gesture in agreement, and during the lunch break two participants elaborated that in the male prisons there were aspects of prison life one needed to put away to successfully acclimate back home. Overall, RC2 and several returning citizen participants recognized the need to change or adjust their demeanor, often in a racial code switching manor [87], to navigate job search.

#### **7.2.5.2 Intersectional Discrimination**

Participants also discussed their various identities, in general, and the implications of being identified as a returning citizen. For example, participants in the focus group were aware that being identified as a returning citizen caused individuals to react to them differently. When asked if they self-identified as a returning citizen, most did not, and used other terms like father, son, businessman, or Black man to identify themselves. For example, RC3 states,

To be blunt, it's just the way society is. We had a discussion a couple nights ago and we live in a very punitive minded society, okay? And so most people say, Hey, he's been to prison, so what was he in for? Or we don't know, but he was in for a very long time. So they figure it was a violent offense. Most people don't feel comfortable around people that have committed violent offenses... Traditionally, psychologically people feel more comfortable hiring somebody that does not have a criminal, uh, criminal background versus somebody that does, particularly when you think or believe that this person has a violent conviction.

There was also recognition that certain professional fields or positions lacked diversity and, as such, access to blue collar jobs was often easier to attain. When discussing research about returning citizens being in more blue collar jobs over white collar jobs, RC3 responds,

There is, there always has been. Uh, just look at any board of directors for any company. Look at the C-suite and especially Fortune 500 companies. That'll explain a lot

to you right there. Now if you add a felony to that mix, they're not hiring that person. They have difficulty hiring, uh, a, a citizen without a felony because he or she is from the east side, but they went to Wayne State and got a bachelor's degree in whatever case it might be. There's a lot of that going on. More than qualified...So when we come home for one of the blue collar jobs are easier to get.

RC7 and the returning citizen participants aspired for better but grappled with both societal and internalized awareness of being penalized for not only being a returning citizen, but also a host of other interconnected qualities. Participants discussed discrimination bluntly when prompted. For example, when RC3 discussed the likeliness of being overlooked for a white collar position, he spoke with frustration. Overall, returning citizens were able to recognize various types of discrimination that have occurred and could potentially occur in the job search process. However, as I discuss in the next section, less visible forms of racism and discrimination were not always salient to the participants.

### **7.2.5.3 Institutional and Internalized Racism**

During the critical consciousness workshops, it became apparent that participants were not familiar with all language around racism. While, on the one hand, some of the examples shared in the focus group discussions alluded to institutionalized racism and internalized racism, on the other hand, not all participants recognized or resonated with the terms.

During both critical consciousness workshop sessions, I asked questions inquiring about specific incidents of racism prior to introducing language surrounding racism. With that in mind, when I inquired if participants understood the term institutional racism, most were able to give me a clear definition. For example, when defining institutionalized racism RC5 remarked,

...I think institutionalized racism is not just one person. It is the whole prison. And then it's like, it's embedded into the prison.

RC5 was also able to provide an example of how the lack of diversity within the prisons correctional officer community caused discrimination.

I got tickets. I got so many tickets that I beat...[For example] the CO put spud [liquor] which is the liquor version [in my cell area]. It is the alcohol version of liquor....So [he/she/they] put that in my area of control, which it was somebody else, but they wrote the ticket on me. And I proved that it wasn't mines....

I highlight this portion of the quote above to demonstrate that RC5 recognized unfair treatment towards him and other Black men who were incarcerated at the time. RC5 also discusses how

several correctional officers were related to each other, which helped to reinforce the idea that the discrimination was institutional.

While there were stories about internalized racism (e.g., other Black people encouraging young men to pull up their pants to improve job prospects or concerns within the community that fatherless homes cause Black youth to go to jail), the term didn't resonate with participants in the focus group.

Overall, while participants weren't always aware of all of the terms related to racism, they were able to describe both direct and indirect racist incidents both inside and outside of prison. Despite discussing this difficult topic, the focus group conversations were casual; the participants were persevering and persisting, existing as formerly incarcerated citizens alongside several other more salient identities (e.g., Black men, father, business owner, etc.).

#### **7.2.5.4 Perseverance Despite Discrimination**

As stated above, participants were aware of the potential for discrimination in the hiring process, but throughout the workshop they tended to express a persevering, hopeful view. Whatever the circumstances, what was important for them was to keep trying. This was true even during those moments in the workshop when I explicitly introduced hiring discrimination as a topic of discussion. Participants tended to focus on solution-oriented methods within their control to navigate their job search.

When asking the group about their thoughts on video interviews and the introduction of bias, RC7 responded, "They always gonna discriminate against you. So you just gotta have it in your mind that I take what I can get until I can do better..." RC7's statement demonstrates that returning citizens are aware of employment discrimination and their role in responding to discrimination, which was to keep applying despite the existence of discrimination. RC5 echoed a similar sentiment when asked why he isn't concerned about bias and discrimination. He said,

It don't bother me because, man, I've been going through that shit for years. Okay. I've been going through for years, so I know like all signs of it... I know how to peep racism. I know how to smell it. I know what it look like.

RC5 earlier in the conversation shared his experiences living in an explicitly racist prison in upstate Michigan. His experiences in prison made him unbothered about potential employment discrimination.

SS8 shared a similar sentiment as it related to employment discrimination, she said, "Well, one thing I always say is I would encourage you to never let your record stop you from going through the process because it's all, I mean, even when we can do a background check, jobs be looking for specific things [i.e.,skills]". Overall, whenever discrimination based on race, criminal past, or zip

code/location was brought up during the discussion, the resounding solution was to keep applying to jobs. No one mentioned methods to stop employers from continuing discriminatory practices.

Throughout the workshop and focus group, there was a recognition and understanding that an individual should be penalized for criminal activity, but participants did not think that penalties should limit returning citizens from all jobs. For example, after everyone agreed in the second workshop that employers should focus on skills first, SS6 remarked,

Well, I think that's commendable [that skills are]...the upfront focus...the primary focus. [However] secondary focus though, is if you went in prison, what was you in for cause like, you don't want somebody with a CSC (criminal sexual conduct) case in your massage parlor for real, for real....

Participants also agreed when SS10 echoed the point that employers need to think critically about whether or not to hire a returning citizen. She said,

Listen, depending on the aspects of the case...the fact is, if you are going to be manufacturing lids for plastic wear for a living, you can have a CSC...There have to be some places [where people with a variety of criminal convictions can work], you know, I think...that's one of the biggest things, which is just like...we just off the bat discriminate based on this [criminal history].

There are laws to prevent returning citizens from being discriminated against solely on criminal background [1], but this information was not raised during the workshop.

The conversation with the group continued around an individual with a criminal sexual conduct or sex offender conviction. Through verbal and non-verbal consensus, the room eventually agreed that employers should prioritize skills first and then scrutinize criminal history – especially if a specific criminal past could impact a business negatively.

Overall, very few of my participants complained explicitly about discrimination – racial or otherwise. They had clearly experienced many discriminatory events, but they maintained a practical outlook to keep searching for a job.

## **7.2.6 Recommendations and Features from Participants**

Next, I relate design ideas developed by participants. In this section I discuss the overall themes that were found across all of the ideas participants created during the design studio workshop.

### **7.2.6.1 Seeking Information about Jobs**

In both workshops participants wanted more specific information about jobs from employers to better assess their ability to take on the job. S4, RC7, and S10 all mentioned this. For example, S4

mentioned the difficulties of understanding the specifics of a job when she states,

...my thing was if it's a person from prison and they fill it out application for a business is they not having any knowledge of the experience of the job. You know how people can, you know, they Chrysler is hiring, Ford is hiring, but if you filling out that form and you get hired, you wanna know what position you work in, what is what, what is required of you physically. You know, mentally, you know, if you have the stamina to, you know, cuz you get a lot of guys, that's older coming out.

RC7 echoed a similar sentiment when he stated,

I think the job description should be a little more clear as in what you'll be doing, how you'll be doing it, as opposed to it being broad, [For example,] I'm hiring a salesperson. What are we going to be selling?...How much time am I to donate to this selling?...Where am I going to sell this?...Do you already have a clientele? What actual role do you want me to play in it?

### **7.2.6.2 Applying to Jobs**

Participants suggested ideas for several aspects of the job application process: getting help with an online application or cover letter, enabling video-based responses to job calls, and bypassing the online application process altogether and instead having direct access to employers.

Returning citizens preferred a person assisting them with their job application over any digital tool, but they also suggested some technical possibilities. In Figure 7.3, the bottom image on the far left shows a list of ideas for obtaining help with a cover letter, and one of the ideas is to call for help. The middle photo suggests being able to call someone for experienced help. Finally, on the far right, one participant simply suggests being able to call for support.

The drawing on the bottom right shows one of the few cases where participants mentioned a technical solution. RC11 and SS10 collaborated on a drawing of an application that provided users the option to have a virtual assistant or robot where users speak out their employment history.

Other participants wanted to use video as an option to apply to a job in lieu of a form-based job application. Figure 7.4 shows examples of these drawings. At the left, SS8 discussed creating a simplified application process that uses video and only requests relevant information to the job.

Several participants liked the idea of using video, and when asked about the potential of video introducing new types of bias, SS6 countered and responded, "video interview can overcome some stereotypes." We also discussed how the interview process should include a diverse panel of people to help reduce bias.

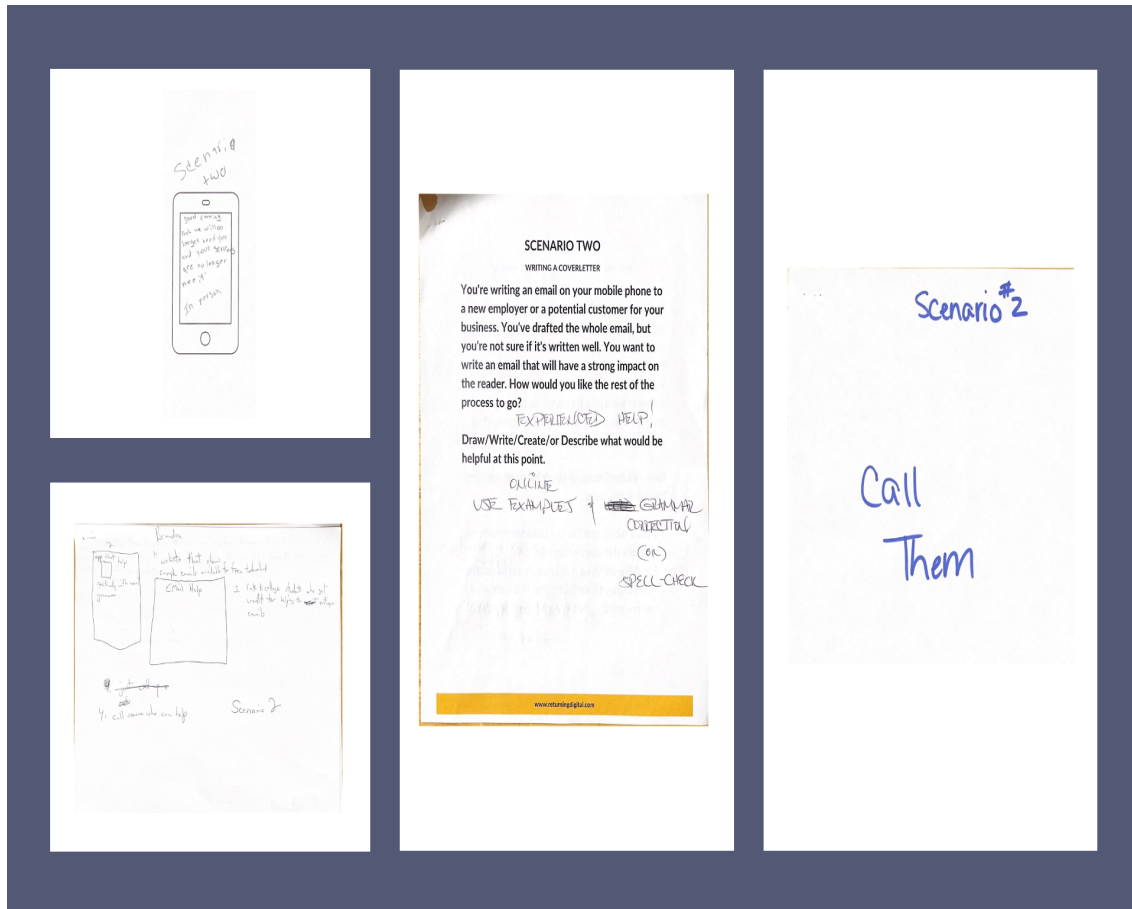


Figure 7.3: Image of participant ideas from top left to right. (1) Image of a cellphone that has writing in it that states: “Good Evening, But, we will no longer need you and your services are no longer needed....In person”, (2) Image found in Figure 7.1, (3) Image of one of the scenario worksheets where a participant writes, “Experienced Help!, online examples and grammar correction (or) spell-check”, (4) A plain white sheet of paper where a participant wrote, “Scenario #2 Call Them”

Finally, there were multiple mentions of wanting to bypass the application process altogether, and go straight to an interview. When asked why they prefer direct access to an employer, RC2 put it succinctly: “Um, because I know how to sell myself.”

There was general agreement among the returning citizens in the room that all of the suggestions provided were good ideas.

In conclusion, I sought to understand (1) what the challenges and preferences are in learning digital literacy for job search, and (1a) how returning citizens and their social support navigate these challenges. I also wanted to better understand (1b) How one’s criminal past and race impact finding a job. I found that returning citizens face a significant challenge in knowing when and how to disclose their felony status and often develop tactics to have more control. It was also



evident that participants in the study wanted to be evaluated for their actual skills, as opposed to their identity or background. Finally, they described specific features they sought in technology platforms for job search. These include: clear, simple job descriptions; auto-fill for commonly occurring input fields; video-based tutorials tailored to their unique needs; and options for human assistance. My findings also highlighted the nuanced experiences Black men returning citizens, noting that, while many of my Black men returning citizen participants were aware of challenges and discrimination in the job search process, they maintained a mindset of perseverance.

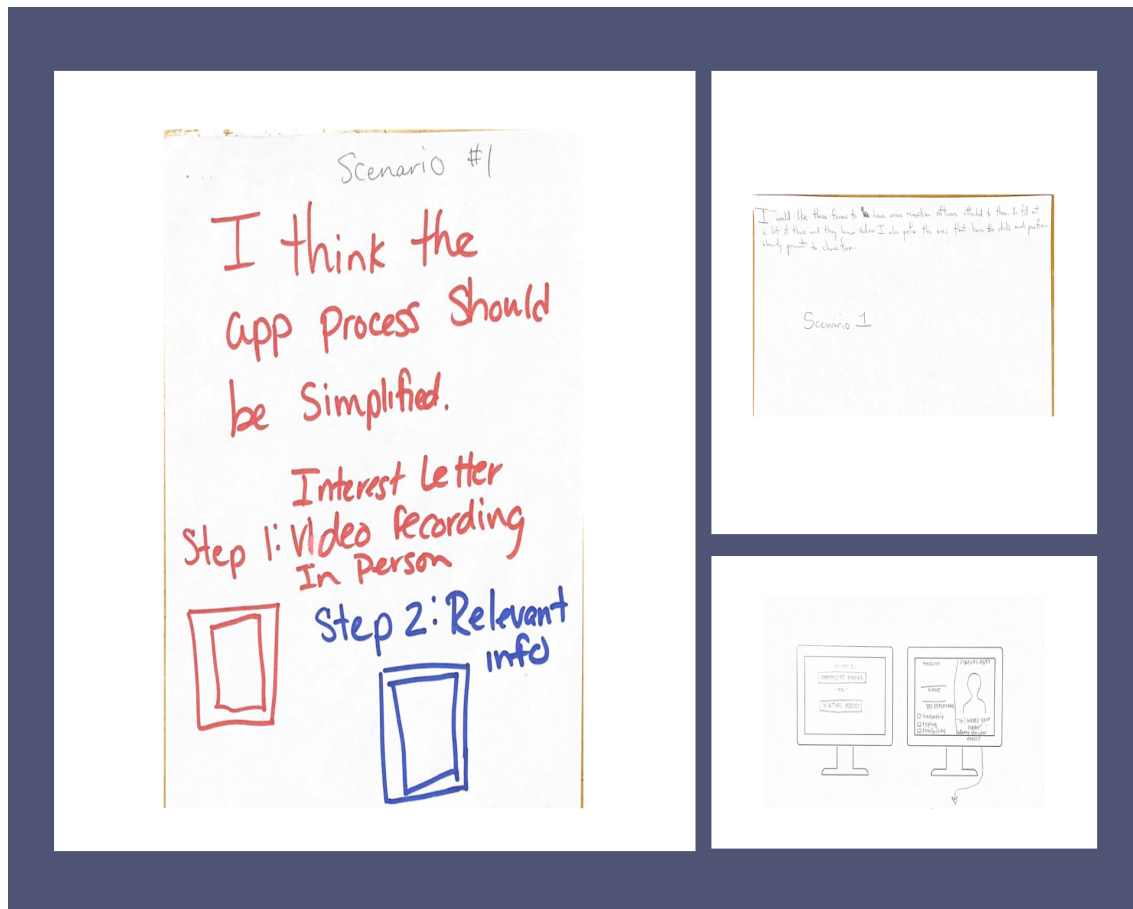


Figure 7.4: Image of participant ideas from left to right: (1) On plain white paper, a participant writes and draws, “Scenario 1, I think the app process should be simplified. Interest Letter, Step 1: Video Recording, In person, Step 2: Relevant Info”, (2) Top right images shows a participant response from scenario one, which states, “I would like these forms to have voice recognition software attached to them. You fill out a lot of them and they become tedious. I also prefer the ones that have the skills and positions already present to choose from...Scenario 1”, (3) Bottom right image is Figure 7.2

## **CHAPTER 8**

### **Discussion**

I conclude my dissertation by discussing the overall findings of all of the studies conducted in this thesis, and situating them against the backdrop of existing literature. On the whole, my work confirms and extends the existing literature on returning citizens and on HCI job search. In this section, I discuss specific findings, addressing the unique traits of returning citizens and why more researchers in HCI should focus on this population. I also discuss the relevance of this research to the Reisdorf and Rikard Digital Rehabilitation Model. Next, I discuss the impact of race, racism, and other types of discrimination. Then, I discuss implications for design and training. I conclude discussing the limitations of this dissertation and its potential for future research.

#### **8.1 Unique Traits of Returning Citizens**

Though returning citizens have some things in common with other groups that are less familiar with digital technology, in terms of job search, I found that returning citizens are a unique subgroup of technology users, differing in key ways from other groups who are either marginalized or novices with respect to digital technology. Returning citizens face a gap in their employment history, are susceptible to spam and ads due to the changing landscape of technology, rely on social support to learn about digital literacy for job search, are wary of social media, and must navigate the online job search with a sometimes visible conviction status. These traits, discussed below in detail, result in new recommendations for design and intervention for returning citizens.

##### **8.1.1 Strengths and Weaknesses with Job Search**

Returning citizens have several strengths and weaknesses as it relates to job search that were highlighted and confirmed in this dissertation.

As it relates to strengths, returning citizens have multiple skills (Phase I) and career aspirations (Phase I). Most participants were optimistic, and had empathetic social support that provided both

material and emotional support (Phase I and Phase II). Returning citizens, especially the African American men who participated in this study, were conscious of how they needed to code switch or adapt to the job search process (Phase III). Some of the weaknesses returning citizens had in the job search process included engaging in a professional network (Phase I and II) and challenges with literacy (Phase I, II, and III).

The strengths of returning citizens have provided them the opportunity to find jobs without solely relying on a digital device. However, returning citizen weaknesses may have limited their exposure to an increased amount of job and educational opportunities.

### **8.1.2 Inexperience with Technology**

Returning citizens exhibited a great diversity with their digital literacy skills, but many participants in this study (from varying backgrounds) acknowledged some sort of difficulty with adjusting to the necessity of contemporary digital technology. For example, returning citizens often report a Rip-Van-Winkle-like experience<sup>1</sup> with respect to digital technology: Having been imprisoned in an age before widespread digital infrastructure, they are befuddled to enter a world in which friends and family eagerly put a smartphone in their hands. Their experience is reminiscent of, for example, technology interaction by older adults [149], but there are salient differences. Older adults who use smartphones can be fluent with sophisticated apps and websites; this did not appear to be the case with my participants. Many older adults are literate and have good educational backgrounds; several of my participants struggled with reading. Older adults rarely worry about pre-existing content about them on the internet [148]; for my participants, their criminal records haunted them online.

I also found that returning citizens needed support learning about and becoming adjusted to searching the web, online advertisements, and spam. This echoes what is found in existing HCI research by Vitak et al [144]; however, Vitak et al, focused on high-poverty communities whereas my research focuses on returning citizens. While some returning citizens may live in high-poverty communities, this susceptibility is engendered and exacerbated by being in a highly restricted environment with little to no internet access while inside prison.

As returning citizens adapt to their new homes, their use of phones eventually become like mainstream mobile users. However, there is more need for non-text based methods of navigating the internet due to some returning citizens being functionally illiterate.

---

<sup>1</sup>In Washington Irving's well-known story set in colonial America, Rip Van Winkle falls asleep for 20 years and wakes up to a dramatically different post-Revolution America [64].

### **8.1.3 The Importance of Social Support**

Previous researchers have found that social support plays a pivotal role in reentry. My research supports these findings and also identifies some of its limitations. Returning citizens rely especially on younger family members for technical help, echoing findings with both older adults in the developed world [149] and low-literate developing-world technology users [112]. However, unlike the latter, who often have others dial numbers or manipulate apps on their behalf, my research shows that returning citizens use – or want to learn to use – digital devices themselves.

Past research has found that low-income job seekers and returning citizens relied more on their strong ties (mostly their social support) than weak ties [48] to acquire and search for jobs [30, 54, 147]). My research further demonstrates the importance of strong ties like families to returning citizens [48]. I think this is due to the increased set of challenges faced by returning citizens which include having to acknowledge their criminal histories on job application, gaps in work history, and decimated weak ties. Strong ties seem more likely to provide additional credibility, share outside employment opportunities, or hire returning citizens. The supporting evidence on this in my research was compelling but limited, and additional research would be required to confirm. While digital technology could serve a role in strengthening both strong and weak ties [30, 120, 143], my finding that many returning citizens may not use social media dampens this possibility and supports a potential area of opportunity for future research.

Yet, the support that even close family members provide is often at a surface level and does not typically cover digital skills important to job search. Unlike prior work with low-income job seekers [36], I did not find examples of social support providing resume feedback, for example. In fact, my participants rarely had or required resumes in their job search.

Overall, I find that family and friends – when they are supportive – play an essential role in providing access to and knowledge about technology, but they don't necessarily provide all of the information required to support a successful transition to using digital technology for the job search .

### **8.1.4 Wariness of Social Media**

My research is the one of the early studies to highlight some returning citizens' wariness of social media. While the returning citizens I interviewed generally seemed to settle into a pattern of digital technology use similar to mainstream use – communication, entertainment, online search – they exhibited a major exception: Many refrained from social media due to parole restrictions, wariness of its temptations, or uncertainty about its value. Given the potential for social media to provide benefits (highlight new jobs and expand one's network), on the one hand, and drawbacks (show harmful targeted ads and unwittingly disclose personal information), on the other, wariness

to social media may have both positive and negative impacts.

Avoiding social media may be good. Previous researchers have found that returning citizens have avoided social media in order to not connect with previous unhealthy communities [99]. Social media has been found to cause depression and provide content that encourages individuals to spend unnecessary time on the platform [70, 80]. Studies have shown social media does not necessarily expand an individual's social network [113].

Nevertheless, returning citizens might be missing out on several opportunities by avoiding social media. For example, using social media sites like YouTube could potentially provide them with content that teaches them real-world skills about technology, coding, and other careers. Social media sites could assist returning citizens in learning about job opportunities or could be a gateway to further enhancing their digital literacy skills in general.

Finally, while it's unclear how widespread the wariness of social media is among returning citizens, it is the case that many returning citizens are generally counseled to stay away from former criminal associates. Avoiding social media is one way that returning citizens avoid interacting with others who have felony convictions [118]. Additionally, some parole restrictions have limits on internet use.

### **8.1.5 Conviction Status**

Public information about previous criminal status is another thing returning citizens must contend with when navigating online job search. Some states' official websites provide the option of looking up conviction status of individuals online. Even in states without that provision, Google searches can show the criminal conviction of an individual, often among the top search hits. As such, many returning citizens are potentially at a disadvantage before they even begin the job search. Overall, after completing a prison sentence society often treats returning citizens as having a scarlet letter [56].

Overall, while returning citizens are similar to other novice technology users in many ways, they also have unique traits (as mentioned above) and unique needs with respect to digital technology.

## **8.2 Relevancy to the Reisdorf and Rickard Digital Rehabilitation Model**

In this section I discuss how my findings relate to the Reisdorf and Rickard Digital Rehabilitation Model [105].

My dissertation provides empirical evidence of the Reisdorf and Rickard Digital Rehabilitation Model. Additionally, my empirical evidence demonstrates applicability of the model within a

U.S. context. I found that there were both digital and non-digital aspects to the economics (i.e., job search, job skills, and employment) of reentry, and that digital challenges added a new layer of complexity on top of the pre-existing non-digital ones. The researchers' model worked as discussed in their research article; however, if I were to extend their model, I would add that participants requested solutions to digital challenges that were non-digital. For example, they sought the ability to be connected to another person when seeking digital literacy for job search help. Additionally, I would add digital literacy as an additional hurdle to the digital aspects of reentry, as digital literacy impacts seeking healthcare online, social engagement online, and the remaining reentry categories discussed by Reisdorf and Rickard.

My research also complicates the Reisdorf and Rickard Digital Rehabilitation Model and goes beyond the literature found in the Technology and Reentry section of my Literature Review. For one, I explore how an individual's identity can complicate reentry. Several of the examples Reisdorf and Rickard share are outside of the United States; using critical race theory, I ground their model in a U.S.-specific context, including the challenging history of slavery, Jim Crow laws, reconstruction, the civil war, and the current carceral system. With this in mind, the United States has a racialized history that continues to make an impact today as it can be seen in areas like health and economic outcomes of racially marginalized communities. Additionally, I engage social support and nonprofits in my research as they are bearing the responsibility of supporting returning citizens during reentry. However, this support is not explicitly recognized in the model.

My research further interrogates the carceral system as it puts into question if these systems truly prepare formerly incarcerated individuals for reentry, given our technologically connected society, and the restricted and highly monitored access of technology in prisons.

Overall, given the history of race and racism in the United States, using the Reisdorf and Rickard Digital Rehabilitation Model, technology developers and users should become attuned to and wary of how system issues can be amplified using technology. [136]

### **8.3 Comments on Race**

In this section I discuss my findings as it relates to race and racism. My use of the community-research advisory board, critical conscious focus groups, and critical race theory have helped support me in understanding my participants viewpoints as it relates to navigating racial discrimination in the job search process. I used critical race theory to develop my research questions, support my methodological approach, develop codes during analysis, and broaden my discussion. While my dissertation does not suggest anti-racist technical features, it incorporates how I define anti-racism design – design that either highlights injustices or finds future alternatives.

In this section, I use critical race theory to structure my discussion on race and perhaps recon-

sider definitions of digital literacy and employment discrimination.

### **8.3.1 Expanding Definition of Digital Literacy**

While my participants defined digital literacy in a way similar to the American Library Association, these definitions did not acknowledge issues of bias or systemic challenges that cause some populations, often marginalized populations, to engage with technology differently from others. I thus recommend expanding the definition of digital literacy to account for bias and the unique experiences of technology users. The American Library Association defines digital literacy as, “the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills” [2].

Participants in this dissertation faced a number of digital literacy challenges few others face. Examples include having to learn how to navigate questions related to incarceration or having to learn new ways to document resume items gained in prison in a way that avoids calling attention to incarceration. While participants understood the definition of digital literacy, I learned in my research that conversations on digital literacy for job search during the workshop extended beyond technical skills; they also included a host of cognitive skills in relation to what information to enter in the forms and how to present oneself during an interview.

When examining this finding through critical race theory [92], especially the tenet of the centrality of race and racism and the challenge to dominant ideology, I speculate that most definitions of digital literacy, including the American Library Association’s definition, assume that “digital literacy” is the same for everyone. However, my research shows that this definition does not account for bias, technological errors, or the fact that some groups face digital literacy challenges that others do not. With that in mind, I recommend an expanded definition of digital literacy that specifically includes digital bias and skills to mitigate it. For example, the American Library Association definition of digital literacy could be, “the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring cognitive skills, technical skills, *and skills to navigate oppressive systems for minoritized individuals.*”

### **8.3.2 Employment Discrimination**

A key tenet of critical race theory is that racism is ordinary and not an aberration. The ordinariness of racism was visible throughout my study. For example, one of my participants mentioned that concerns about race are always present, since employers ask demographic information when applying to jobs. As it relates to race and employment discrimination, participants highlighted the importance of persevering and taking the jobs that were available as they worked their way to jobs that met their aspirations.



Notably, they rarely raised the question of race or racism themselves – it was only when I prompted them about race that they mentioned it. This finding is interesting as one could argue that many of my participants have experienced the worst parts of racism and classism, yet they chose not to dwell on it in the job search process. Formerly incarcerated Black men are aware of the issues as it related to challenges of racism and employment discrimination, but many nevertheless persevered, often optimistically. Instead of fighting back against racist policies, systems, and institutions, most Black men returning citizens in my participant pool were fighting back by working earnestly to live their lives and to successfully return home. They were looking for jobs, they were searching for housing, they were working on their relationships, they were seeking care for their health, and, overall, they were doing what was necessary to survive and hopefully thrive in life.

Navigating racism often included hiding and downplaying aspects of their identity to not affirm stereotypes or to draw too much attention to their background or culture. Researchers have studied how, within a couple of months, formerly incarcerated individuals often reduce their use of mobile devices for job search during their transition home [121, 123]. However, after conducting this dissertation one can posit if the reduction of use of cellphones to find jobs is due to digital literacy challenges, access-to-the-internet challenges, accessibility challenges, or racial battle fatigue due to navigating various systems and searching for a job.

Future research on reentry could focus on the impact of code-switching, assimilation, racial battle fatigue, or John Henryism stressors – the latter of which includes “attributes such as hard work, strong mindedness, and determination that individuals who lack resources draw from to achieve success in spite of high levels of exposure to adversity” [37]. These all affect the formerly incarcerated, as they return home to systems that limit their access to basic necessities, like housing, employment, and healthcare. In conclusion, all issues that deal with racism are significant as they impact not only an individual’s livelihood and well being, but also families and broader community.

## **8.4 Implications for Design and Training**

In this section I share both technical and non-technical recommendations to support the design and development of digital literacy tools and resources for job search for returning citizens. These were provided by my participants and myself. My findings inform technology design – the need for web browsers that certify legitimate sites (versus ad traps); clearer indications in browsers when navigating away from a site; and video tutorials for job-search sites that allow returning citizens to learn basic online tasks step-by-step. But, in line with other research that discourages facile notions of tech-centric support [6, 136], my recommendations also inform the design of digital literacy training programs that would build human capacity.

Lastly, it should be noted that my findings related to race and anti-racism – research that either highlights injustices or finds future alternatives – did not lead to the development of specific technological features but instead improved methodological approaches when engaging marginalized populations.

### **8.4.1 Technical Recommendations**

The two areas that emerged clearly as areas where technical design could support returning citizens with job search was with respect to gaining information about critical topics such as digital literacy or job search and applying to jobs, especially when it comes to form-filling. These recommendations come from the combination of returning citizens' desire to bypass markers of stigma or bias and – in some cases – their limited text literacy. In this section, I discuss both technical design features and digital literacy course content features that discuss technology.

First, many of my participants wanted alternate means to learn about digital literacy, as well as jobs and the requirements of potential jobs. Participants in my study noted that they wanted to learn about jobs not through text descriptions but through videos, presumably because they were more comfortable absorbing information in non-text forms. They requested that companies should consider tailoring educational videos to individuals who are not digitally literate. They also suggested that videos could have more diversity in representation, possibly including those with a criminal past. These findings reinforce previous research in education and computing research that suggest that videos can encourage engagement with technology among novice technology users [13, 89].

Second, there are multiple options for easing the significant challenges returning citizens face with job applications and online form-filling. For example, all online forms should have an audio option and voice-to-speech option. All form inputs could have a button that states by voice what is requested for that form content. Additionally, users could have the option to press a button to enable their microphone so that they can speak their information to the form. While most forms can easily be read by external text-to-speech tools, this tool would place the responsibility on companies and the federal government to already have the technology on their websites to engage all users.

Next, to reduce challenges with filling out job application form categories repeatedly, an automated form-filling technology that expands what many state-of-the-art web browsers already do (e.g., with addresses and credit card information) – in this case, something that is specifically designed for job applications and returning citizens. Users would fill out a general form that contains common job application form areas. The browser extension would scrape the website to understand the data entry inputs, and compare it against the form initially filled out by the user and place

the data into the form.

Similarly, to reduce other types of redundancy in the job search processes, a global or common job application that uses database tagging to compose different job applications could be created. Similar to the development of a CV, users would be requested to enter all of their job history in an accessible form where users can enter data via a text-based form or have questions played via audio with the option to fill forms using voice-to-text. Once a user's entire job history has been entered into the system, they can auto create resumes based on different skills or professions they categorized when entering their data. Companies who are advocates for reentry would be encouraged to submit job descriptions on the platform. Users could then simply submit applications by the clicking on the profession, which will auto-create a resume for them. Users would preview the resume and edit if needed, and then they would submit their application.

Another technical recommendation is to consider functionally illiterate persons who navigate the web. During all research studies conducted, participants consistently acknowledged challenges with text literacy. With this in mind, another design recommendation is to provide multiple options to apply to a position outside of submitting a text-based form. Participants often suggested using video as a means of engaging with employers during the initial application period. Allowing job seekers the opportunity to use video introduces the opportunity for new forms of bias, however, it may assist job seekers in having a much-needed alternative to the traditional form.

Finally, I focus on digital literacy curriculum content that is technical. First, digital literacy content should convey basic mental models of digital technology as a way to scaffold practical skills and more sophisticated understanding. With respect to internet navigation, it is imperative to ensure that returning citizens understand spam, ads, and other online scourges. Like other groups from low-socioeconomic backgrounds [144], these issues often confounded my participants. Furthermore, challenges of textual non-literacy must be considered [31] when developing learning content to ensure all returning citizen participants can engage in the course. Lastly, job search skills are worth demonstrating on both mobile and larger computing devices.

## **8.4.2 Non-Technical Recommendations**

While it's valuable to design digital tools for returning citizens, we must continue to provide analog options as well to ensure returning citizens are able to engage with society and its opportunities. One problem is that the widespread use of digital technology can amplify issues of digital access or differences in digital literacy [136]. For example, in the same way that some restaurant patrons require paper menus, even as many restaurants move away from using them (e.g., with QR codes and smartphone menus), returning citizens need analog options, even as job search becomes more digital. I offer the following non-technical recommendations as starting points for similar programs

and further research.

First, digital literacy courses for returning citizens may benefit from being integrated with larger goals such as employment or entrepreneurship, as the latter are returning citizens' ultimate aspirations. Second, the diversity of returning citizens seems a constant, so trainings that flexibly alternate between structured pedagogy and individualized one-on-one guidance may be the most fruitful.

Second, I share non-technical recommendations for the general employment process for returning citizens. First, I reiterate my participants' call for job descriptions to be clear and specific. Participants wanted to see what a "day-in-the-life" or example work of a particular position would look like in order to understand if a job was worth applying to.

Next, barriers to direct contact with employers should be reduced. My work echoes that of other researchers who have highlighted the importance of returning citizens' gaining access to employers during the job application process [95, 122]. For example, Pager finds that "first impressions, one-on-one contact can provide the opportunity to supply personal information that is inconsistent with stereotyped expectations." In her study, criminal record penalty dropped from 70% to 20% [95]. Returning citizens in my study re-emphasized the importance of connecting with a person, not only to ask technical related questions or to "sell" themselves for a position, but for decision-makers to see the humanity in someone who has a criminal past. With this in mind, I recommend providing a phone number in job calls so that job seekers have the opportunity to call and ask questions.

## **8.5 Limitations**

My participants were a biased sample at multiple levels. My recruiting strategy involved working through agencies that assist returning citizens, which means that I was less likely to have interviewed those not in touch with such organizations. Those who eventually participated were the ones with support required to respond appropriately and find transportation to meeting sites. And, the participants I reached out to for Phase II had various advantages as it related to availability, parole restrictions, and relationships with their social support. The net result is that the conclusions I have drawn undoubtedly skew optimistic; reality is likely even starker for the majority of returning citizens.

In Phase III, the design of the study didn't provide participants the opportunity to consider discriminatory employers in the job search process. Instead, conversations centered around benevolent employers. This was due to the development of the scenarios that focused on the challenges returning citizens face with using digital tools in applying, rather than focusing on discrimination in the job search process.

Additionally, while my study focuses on formerly incarcerated individuals, especially formerly

incarcerated Black men, it does not consider the perceptions of employers who are responsible for the hiring process. Future research could further unpack what systems in a job search that uses digital tools are successful for returning citizens from the perspective of employers.

## **8.6 Future Research**

I conclude this chapter by discussing future research areas based on the findings and discussion of this dissertation.

One avenue for future work would be to build on the work in this dissertation by designing, developing, and evaluating a digital tool for returning citizens and their social support. For example, because my previous work showed that returning citizens struggled with multiple online forms, one possibility is creating a browser add-on that would auto-fill a broad range of job-search fields that go beyond name and address. Based on findings from Phase I, it might be the case that a tool built for smartphones is especially worthwhile.

Another avenue of future research is to further understand the returning citizen population as it relates to digital literacy skills in a more exhaustive way. For instance, research could explore whether age or length of sentence makes a significant impact in digital literacy skills, especially as it relates to job search. Exploring this topic would provide a better understanding of how different dimensions of one's background affect the overall conclusions I discussed.

Lastly, future research could investigate how best to design and offer video programming to support digital literacy development of returning citizens. My participants requested informational videos about job search multiple times, but they might also benefit from videos about digital literacy more broadly. If so, more research would be needed to determine how such videos should be designed, who should be featured in those videos, and how such videos should be made available.

## **CHAPTER 9**

### **Conclusion**

#### **9.1 Conclusion**

My dissertation places emphasis on members of society in the United States who face the demanding challenge of not only reintegrating back into society from prison but also finding a job – all while being technologically disadvantaged as a result of their prison time. My empirical research has contributed new knowledge of how returning citizens who were previously incarcerated (with little to no internet access during that time) fare outside of prison as it relates to job search and digital literacy. I also contribute new features in curriculum design and in the design of tools and resources for digital literacy for job search, specifically as it relates to returning citizens and their social support networks. Lastly, this dissertation highlights the sub-context of the challenges of race, racism, and employment discrimination as it relates to the formerly incarcerated community navigating the digital aspects of the job search process.

My long-term goal is to inform programs that assist returning citizens as they integrate back into society. A curriculum has been created based on this dissertation based on the findings in Phase II. Additionally, results of this study have been used by nonprofits to develop digital literacy courses for job search for returning citizens.

Overall, the digitization of society is making reentry harder. Job search activities that used to be done without technology (e.g., filling out a job application form) now require advanced digital literacy. Many returning citizens deserve a second chance and are eager to be productive citizens. We must give them a chance.

## APPENDIX A

### Phase I, II, and III Flyers

Figure A.1: Study One Flyer

**WE'RE  
LOOKING  
TO  
INTERVIEW  
RETURNING  
CITIZENS**

Are you a returning citizen, who was released within the last year? If so, we want to interview you about how you search for jobs and how you use digital technology.

**Age:** You must be 18 or older to qualify  
Time Range: Interviews will be conducted in person and last between 60 and 90 minutes

**INTERESTED IN PARTICIPATING?**

<i>Contact Us:</i> digitalskills@umich.edu (989) 372-0835	<i>Compensation:</i> Participants will be compensated \$30
---	---

Figure A.2: Study Two Flyer

# RETURNING CITIZENS DIGITAL LITERACY PROJECT

Are you a returning citizen, who was released within the last year? If so, join us for a six week digital literacy lab where you will learn computing concepts as it relates to job search.

Age: You must be 18 or older to qualify

Time Range: Six week class that meets online once a week on Sunday

## INTERESTED IN PARTICIPATING?

*Contact Us:*  
digitalskills@umich.edu  
(989) 372-0835

*Compensation:*  
Participants will be  
compensated \$20 per class



Figure A.3: Study Three flyer

# RETURNING CITIZENS DIGITAL LITERACY PROJECT

Who: We are seeking returning citizens **and** individuals who have supported returning citizens with computing skills to participate in a design research workshop

What: 2-Day Workshop

Total Time Commitment: About 6 to 7 hours across two days in July

Age: You must be 18 or older to qualify

**Participants will be compensated \$150 for the entire session**

## INTERESTED IN PARTICIPATING?

### ***Workshop Dates:***

Thursday, July 21 and Friday (July 22)

Monday (July 25) and Tuesday (July 26)

### ***Contact Us:***

digitalskills@umich.edu

(989) 372-0835

## APPENDIX B

# Phone Screen Protocol

### Phone Script

Hi!

May I speak to [STATE THEIR NAME] . Hi my name is [STATE YOUR OWN NAME], I am returning you call from the Digital Literacy Project. Is this a good time to talk? (Wait for response)

Great!

Thank you for your interest in interviewing for the Returning Citizen Study. Prior to setting up an interview time, I will need to ask three questions to ensure that you qualify for the study. Is it ok if I go ahead and them? (Read questionnaire below)

Do you have any questions for me? All right, then, let's proceed.

Table B.1: Phone Screen Questions

1. Do you identify yourself as a returning citizen, formerly incarcerated, or person who has recently left prison?	Yes No Did not answer
2. Are you 18 years or older?	Yes No Did not answer
3. Have you been released within the past six months to a year?	Yes No Did not answer

So the next step is to set up an interview. We are currently confirming our locations. With that in mind, I will need to call you back so we can find a time slot and location that works for you. Please let me know where you are currently based?

Thanks so much [STATE THEIR NAME].

## APPENDIX C

### Phase I Interview and Survey Protocol

#### Interview Protocol

**Overarching question:** How do returning citizens conduct job searches, and how comfortable are they with digital technology (in ways that could conceivably assist with job search)?

**Key areas:**

**Materials:** Voice recorder, Notepad, Pen, IRB

**Total Interview Time:** 60 to 90 minutes

Participant Name: Participant ID: Interviewer Name: Date: Time: Location:

**General Introduction** Hi, my name is [STATE NAME], I am a PhD Student at the University of Michigan School of Information. Thank you for taking the time to meet with me today. **As over the phone we are interested in understanding your interactions with digital technology and how, if at all, you've engaged in job search.** This interview will take about **60 to 90 minutes**, during which time we'll go through some questions.

A couple of things before we start. To the extent possible, we will take your comments to be confidential. All the comments made during this interview will be combined with other interviews, and if we quote you in our final report, we will do so without identifying who you are. Also, this interview is entirely voluntary on your part – if for any reason you want to stop, please let me know. Your stories and reflections with other people who are being interviewed will help us to develop a digital literacy course for returning citizens.

Do you have any questions for me? All right, then, let's proceed.

[Once the interview gets underway...] Oh, and by the way, do you mind if I take an audio recording? This is just so that I don't miss anything. It's OK if you don't want to be recorded, but it would help me and other researchers I'm working with. Thanks.

**Warm up**

1. What year were you incarcerated?
2. How old were you then?

3. How old were you when you were released?
4. What was the food that you craved the most once you were released?

### **Before Prison and Time in Prison**

1. Were you employed prior to being incarcerated, and if so, what kind of work?
2. Did you work while being incarcerated?
3. What work did you do?
4. Did you do any other types of work or take classes while you were incarcerated? If so, what?
5. Why did you take that class or perform that work?
6. Did you take any reentry or employment readiness classes?
7. What did they teach you?
8. How long was the course?
9. Did you write a resume in the course?
10. Did you perform any informal work outside of the jobs and classes that you mentioned?
11. Did you save money while in prison? If so, how much did you leave with?

### **Understanding Background, Skills, Experiences**

Next, I am interested in understanding your experiences since you were released from prison.

1. What was the first thing you did once you were released?
2. How did you feel on the first week of your release? What happened? Where did you go? What did you do?
3. Have you miss anything about prison?
4. Can you think of one challenge you faced while transitioning?
5. What resources or services have you used to date?
6. Now that you are no longer incarcerated, what are your goals for your first year?
7. What are your five year goal?

8. What is your dream job?
9. What is your ideal pay or salary?
10. What are some things you think are important to do when you are transitioning?
11. Since you have been released, who were the people who have assisted you with transitioning back home during your first three months?
12. What kind of things did they help with?

### **Understanding Job Searching Effort**

1. I know that one of the challenges that returning citizens face is finding jobs. I'm not sure if you're currently working or not [*wait a little bit here to see if they nod or interject*], but in any case, I'm curious about how you've looked for jobs." I was wondering if you could talk about your experience looking for a job during the first three months after your release? Are you working right now?
2. Did anyone help you with the process? Can you tell me a bit about their involvement?
3. If you could name one to three people you mentioned as the most influential in your job search, who would they be and why?
4. Did you utilize any services, resources, or websites during this time period?
5. I am also interested in learning if you used any digital technology during your job searching process. Did you have any digital technology during your job search?
6. Do you currently have a resume?
7. Where and when did you create it?
8. Is having a resume useful?
9. Did you have a resume prior to going to prison?
10. How do you learn about new job opportunities?
11. How do you learn about new job opportunities that accept returning citizens?
12. Is there a place that you go to to learn about job opportunities or to perform your job search?
13. Would a personal website displaying your skills be useful for your job search?

14. Do you use any special tools, websites, or apps for your job search?
15. If the individual mentions using a special tool or website like Indeed.com, and they have a smartphone, you might want to do some casual observation. Ask them, “You mentioned ‘Indeed.com’ – I’m not too familiar with that site (say this even if you are)... Could you show me how you use it?” and keep asking follow-up questions to watch as they log in, etc. Observe how they type, etc.
16. Thinking about your job searching process during your first three months, what aspects of this process would you described as working?
17. What aspects of the process that you described are not working?

**If the interviewee has indicated that they have a job:**

You mentioned earlier that you are working, I would love to learn more about how you learned about your job, the application and interview process.

1. Can you talk me through how you learned about your job opportunity?
2. Did you have to disclose that you were previously in prison during the interview?
3. If so, can you walk me through how did you go about disclosing that you are a returning citizen to your employer?
4. Did you have to disclose that you were previously in prison in your application?
5. Was the application online or offline?
6. Did you have a previous job before this opportunity?
7. Tell me how you learned about that job opportunity?
8. Is the work that you are currently doing considered your career?

**Understanding Usage of Tech**

My next set of questions will ask you questions about your usage of digital technology since you have returned home.

For the remainder of the questions we will be defining digital technology use as anything you did on a computer or a mobile phone, whether they were your own, or if you went to the library, for example.

1. During the initial three months of being released can you share what (if any) technology you used during your job searching process.

2. During your first month of release what pieces of technology did you use? What did you use it for?
3. What digital technology do you use today? How does it compare to when you were initially released?
4. How did you go about learning to use the technology?
5. Did anyone show you how to use the technology? How old were they?
6. Were they a family or friend?
7. On a scale of 1 to 5 with 5 being expert and 1 being beginning, how would you rate your digital literacy skills?

**Additional Questions - Ask the following questions if they were not explicitly stated during the interview**

1. Do you use any social media sites? If so which one?
2. How long have you been using the site?
3. Did anyone show you how to use the sites?
4. What is your opinion about social media?
5. Did you use any job searching websites?
6. Did you use Indeed?
7. Did you access Michigan Works?
8. Have you used Youtube before?
9. Have you ever taken any online courses? If so what?

**Closing Question**

1. If you were to attend a digital literacy course, what would you like to learn?
2. Would you be interested in attending or helping to facilitate a digital literacy course?

Table C.1: Survey Questions Page 1

<b>Federal or State Prison</b>	
<b>Age</b>	18-24 years old 25-34 years old 35-44 years old 45-54 years old 55-64 years old 65-74 years old 75 years or older
<b>Race</b>	White Hispanic or Latino Black or African American Native American or American Indian Asian / Pacific Islander Other Identity
<b>Gender</b>	
<b>Amount of time as a returned citizen</b>	
<b>Household/Family Size/How many people live in your household</b>	
<b>Income Level</b>	Less than \$20,000 \$20,000 to \$34,999 \$35,000 to \$49,999 \$50,000 to \$74,999 \$75,000 to \$99,999 Over \$100,000
<b>Where do you currently live</b>	Apartment House Residential Placement With family With friends At a hotel At a shelter Homeless



Table C.2: Survey Questions Page 2

<p><b>Highest level of Education</b></p>	<p>No schooling completed  Nursery school to 8th grade  Some high school, no diploma  High school graduate, diploma or the equivalent  (for example: GED)  Some college credit, no degree  Trade/technical/vocational training  Associate degree  Bachelor’s degree  Master’s degree  Professional degree (Dental, Medical, etc.)  Doctorate degree</p>
<p><b>Zip Code</b></p>	

**Closing**

Those are all the questions I have for you. If anything else occurs to you after I leave, please don’t hesitate to let me know our email is [digitalskills@umich.edu](mailto:digitalskills@umich.edu), and our number is [redacted]. Thanks again!

## **APPENDIX D**

### **Design Studio Workshop Schedule - Day 1**

03:00 - 03:30	<p>Check-In</p> <p>Welcome participants, Provide Paperwork, Provide Name Tags, Optional Masks and Hand Sanitizer. Ask them to grab food as I wait for everyone else.</p> <p>Read Consent and Demographic Survey</p>
03:30 - 04:10	<p>Warm Up and Ice Breaker</p> <p>Discussion of the Design Studio Workshop, Ice breaker, and Hopes and Nightmares Activity</p>
04:10 - 05:20	<p>Scenario 1</p> <p>4:10 to 4:20 (10 minute) review instructions and general feedback (breakout groups)</p> <p>4:20 to 4:25 (5 minute) drawing of new features</p> <p>4:26 to 4:28 (2 minutes) Turn and talk to your partner about all of your ideas</p> <p>4:29 to 4:35 (5 minute) discussion with initial debrief questions</p> <p>4:30 to 4:35 (5 minute) Group discussion of top ideas and group sharing feedback</p> <p>Scenario 2 (optional)</p> <p>4:35 to 4:45 (10 minute) review of instruction (breakout groups)</p> <p>4:46 to 4:51 (5 minute) drawing of new features</p> <p>4:52 to 4:54 (2 minutes) Turn and talk to your partner about all of your ideas</p> <p>4:55 to 5:00 (5 minute) discussion with initial debrief questions</p> <p>5:00 to 5:05 (5 minute) Group discussion of top ideas and group sharing feedback</p>
05:20 - 05:50	<p>30 minute Dinner Break</p>
05:50 - 06:20	<p>Scenario 3</p> <p>5:50 to 6:00 (10 minute) discussion (breakout groups)</p> <p>6:00 to 6:05 (5 minute) drawing of new features</p> <p>6:06 to 6:08 (2 minutes) Turn and talk to your partner about all of your ideas</p> <p>6:09 to 6:14 (5 minute) discussion with initial debrief questions</p> <p>6:14 to 6:19 (5 minute) Group discussion of top ideas and group sharing feedback</p>
06:20 - 06:50	<p>Group Discussion (Member Checking)</p> <p>Prioritizing Group Conversation - What do you all have in common, what aspects of everyone design is most valuable and why?</p> <p>Have each team explain concept. Have other teams what could be improved.</p> <p>Have individuals vote on the importance of a specific feature.</p>
06:50 - 7:00	<p>Closing</p> <p>Recap of Day</p> <p>Reminder of Next Day</p> <p>Please fill out the evaluation</p> <p>QandA</p>

## APPENDIX E

### Design Studio Workshop Schedule - Day 2

3:00 - 03:30	Welcome Provide paperwork for compensation
03:30 - 05:00	Focus Group Summary of Previous Day Focus Group Discussion

## **APPENDIX F**

### **Design Studio Workshop Scenarios**

#### **F.1 Scenario One**

##### **F.1.1 Applying to a job**

You are applying for a new job at Ford Motor Company. You've found the job online, and see the form for applying" [Show illustrations of a job advertisement and online job application portal]. You are unsure what information to put in the form to highlight your experience in the best possible manner?

Draw/Write/Create/or Describe what would be helpful at this point.

#### **F.2 Scenario Two**

##### **F.2.1 Writing an Email**

You're writing an email on your mobile phone to a new employer or a potential customer for your business. You've drafted the whole email, but you're not sure if it's written well. You want to write an email that will have a strong impact on the reader.

Draw/Write/Create/or Describe what would be helpful at this point.

#### **F.3 Scenario Three**

##### **F.3.1 Racism, Bias, and Discrimination**

You're setting up your LinkedIn profile. (LinkedIn, in case you don't know, is a professional networking website where employers and potential employees can learn about each other.) The site prompts you to upload a head shot. But, you've heard that people sometimes don't get call

backs from jobs they apply to because of their race, so you're wondering about whether you should upload a photo. How would you like the LinkedIn website to handle this overall scenario? Is there anything that LinkedIn could do that would make it easier for you to decide how to respond?

How would you go about obtaining help to learn what information to place in the form???

Probe: Discuss unconscious bias What do you like about that idea? Do you think you would find that idea useful yourself?

## APPENDIX G

### Focus Group Questions

1. What do you think about the term returning citizen?
  - (a) Do you want people to know you are formerly incarcerated? Why or why not? Is it important to your identity?
2. Is the job search process fair? Why or Why not?
  - (a) How do you feel about the job search process?
  - (b) What do you think should be done about these issues?
  - (c) How do you stay motivated in the job search process?
  - (d) Does anyone benefit from you not getting a job? Does anyone get hurt by you not getting a job?
  - (e) When I talk to returning citizens about jobs available, I hear plumber, plant worker (blue collar jobs), but I don't hear doctor, banker, etc (white collar jobs). Why do you think that is?
3. Are you concerned about any bias and discrimination?
  - (a) If so, what kind of bias, and how would it manifest?
    - i. How do you navigate these concerns?
    - ii. Would it be helpful if someone or an app told you about challenges related to discrimination, bias, specifically racism, sexism, ableism, etc.
  - (b) Is there anything else you would like to say about your digital literacy skills and job search experiences?
4. Has someone told you that you were digitally illiterate or not good at computers? When was the first time? Do you think you are digitally literate?

5. What are the lessons you have learned during your job search?/What do you wish you knew before navigating for jobs?
  - (a) What about disclosing your status online, do you have strategies for that process?
6. When you think of a digital literate person, can you describe that person for me? Who do they look like?



## **APPENDIX H**

### **Beyond the Dissertation**

The findings of this dissertation will be used to develop a policy brief on the internet as a utility. I have also presented the findings of these studies to Out4Life, the Michigan State Appellate Defender Office (SADO), and Michigan Department of Corrections (MDoC) parole and probation officers. Resources from this study are available via the website: <http://returningdigital.com>.

## BIBLIOGRAPHY

- [1] Michelle Alexander and Cornel West. *The New Jim Crow : Mass Incarceration in the Age of Colorblindness*. The New Press, New York, UNITED STATES, 2012.
- [2] American Library Association. Digital Literacy Definition — ALA Connect.
- [3] Doreen Anderson-Facile. Basic Challenges to Prisoner Reentry. *Sociology Compass*, 3(2):183–195, 2009.
- [4] Doreen Anderson-Facile. Basic challenges to prisoner reentry. *Sociology Compass*, 3(2):183–195, 2009.
- [5] Demelza Baer, Avinash Bhati, Lisa Brooks, Jennifer Castro, Nancy La Vigne, Kamala Mallik, Rebecca Naser, Jenny Osborne, John Roman, Shelli Rossman, Christy Visher, and Laura Winterfield. Understanding the Challenges of Prisoner Reentry: Research Findings from the Urban Institute’s Prisoner Reentry Portfolio. *Reentry Research Findings*, 2006.
- [6] Eric PS Baumer and M Six Silberman. When the implication is not to design (technology). In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, pages 2271–2274, 2011.
- [7] Derrick A Bell Jr. Brown v. board of education and the interest-convergence dilemma. *Harvard law review*, pages 518–533, 1980.
- [8] Mark T. Berg and Beth M. Huebner. Reentry and the ties that bind: An examination of social ties, employment, and recidivism. *Justice Quarterly*, 28(2):382–410, 2011.
- [9] Ingrid A. Binswanger, Marc F. Stern, Richard A. Deyo, Patrick J. Heagerty, Allen Cheadle, Joann G. Elmore, and Thomas D. Koepsell. Release from Prison — A High Risk of Death for Former Inmates. *New England Journal of Medicine*, 356(2):157–165, 2007.
- [10] Linda Birt, Suzanne Scott, Debbie Cavers, Christine Campbell, and Fiona Walter. Member checking: a tool to enhance trustworthiness or merely a nod to validation? *Qualitative health research*, 26(13):1802–1811, 2016.
- [11] Matt Blomberg, Darcey Altschwager, Hyunjin Seo, Ellie Booton, and Maxine Nwachukwu. Digital divide and marginalized women during covid-19: a study of women recently released from prison. *Information, Communication & Society*, 24(14):2113–2132, 2021.

- [12] Geoffrey C Bowker and Susan Leigh Star. *Sorting things out: Classification and its consequences*. MIT press, 2000.
- [13] Cynthia J Brame. Effective educational videos: Principles and guidelines for maximizing student learning from video content. *CBE—Life Sciences Education*, 15(4):es6, 2016.
- [14] Shawn D Bushway, Michael A Stoll, and David Weiman. *Barriers to reentry?: The labor market for released prisoners in post-industrial America*. Russell Sage Foundation, 2007.
- [15] Nolan L. Cabrera. Where is the racial theory in critical race theory?: A constructive criticism of the crits. *Review of Higher Education*, 42(1):209–233, 2018.
- [16] Devon W Carbado, Kimberlé Williams Crenshaw, Vickie M Mays, and Barbara Tomlinson. Intersectionality: Mapping the movements of a theory. *Du Bois review: social science research on race*, 10(2):303–312, 2013.
- [17] E Ann Carson. Prisoners in 2016 Summary. *Bureau of Justice Statistics Bulletin*, pages 1–34, 2016.
- [18] E Ann Carson. Mortality in state and federal prisons, 2001–2018—statistical tables. *Bureau of Justice Statistics*, 2021.
- [19] Baek-Young Choi and Sejun Song. Toward digital equity: Technology education for underserved populations. In *IEEE International Smart Cities Conference*, 2019.
- [20] Jennifer E. Cobbina. Reintegration success and failure: Factors impacting reintegration among incarcerated and formerly incarcerated women. *Journal of Offender Rehabilitation*, 49(3):210–232, 2010.
- [21] Kimberly Cook-Chennault and Idalis Villanueva. An initial exploration of the perspectives and experiences of diverse learners’ acceptance of online educational engineering games as learning tools in the classroom. In *2019 IEEE Frontiers in Education Conference (FIE)*, pages 1–9. IEEE, 2019.
- [22] Kimberle Crenshaw. Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stan. L. Rev.*, 43:1241, 1990.
- [23] Marilena David. SADO’s Project Reentry Delivers Pre and Post-Release Reentry Assistance.
- [24] Kristine Petrick Davidson. *Successful reentry for prisoners: A study of career and technical education programs in the Michigan Department of Corrections*. PhD thesis, Capella University, 2014.
- [25] Richard Delgado. Storytelling for oppositionists and others: A plea for narrative. *Michigan Law Review*, 87(8):2411–2441, 1989.
- [26] Richard Delgado and Jean Stefancic. *Critical race theory: An introduction*, volume 20. NyU press, 2017.

- [27] Richard Delgado and Jean Stefancic. *Critical race theory: An introduction*, volume 87. NyU press, 2023.
- [28] Mika'il DeVeaux. Not just by rates of recidivism: how nyc black men define success after prison. *Journal of Offender Rehabilitation*, pages 1–22, 2022.
- [29] Leconté J Dill, Carlos Mahaffey, Tracey Mosley, Henrie Treadwell, Fabeain Barkwell, and Sandra Barnhill. “ I Want a Second Chance ”: Experiences of African American Fathers in Reentry. 2016.
- [30] Tawanna R Dillahunt. Fostering social capital in economically distressed communities. In *Proceedings of the 32nd annual ACM conference on Human factors in computing systems - CHI '14*, pages 531–540, New York, New York, USA, 2014. ACM Press.
- [31] Tawanna R Dillahunt, Nishan Bose, Suleman Diwan, and Asha Chen-Phang. Designing for Disadvantaged Job Seekers: Insights from Early Investigations. *Proceedings of the 2016 ACM Conference on Designing Interactive Systems - DIS '16*, pages 905–910, 2016.
- [32] Tawanna R Dillahunt, Matthew Garvin, Marcy Held, and Julie Hui. Implications for supporting marginalized job seekers: Lessons from employment centers. *Proceedings of the ACM on Human-Computer Interaction*, 5(CSCW2):1–24, 2021.
- [33] Tawanna R Dillahunt and Joey Chiao-Yin Hsiao. Positive feedback and self-reflection: features to support self-efficacy among underrepresented job seekers. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*, pages 1–13, 2020.
- [34] Tawanna R Dillahunt and Joey Chiao-Yin Hsiao. Skillsidentifier: a tool to promote career identity and self-efficacy among underrepresented job seekers. In *Proceedings of the Annual Hawaii International Conference on System Sciences*, 2021.
- [35] Tawanna R Dillahunt, Aarti Israni, Alex Jiahong Lu, Mingzhi Cai, and Joey Chiao-Yin Hsiao. Examining the use of online platforms for employment: A survey of us job seekers. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*, pages 1–23, 2021.
- [36] Tawanna R. Dillahunt, Jason Lam, Alex Lu, and Earnest Wheeler. Designing Future Employment Applications for Underserved Job Seekers: A Speed Dating Study. *The 2018 ACM Conference on Designing Interactive Systems (DIS '18)*, 2018.
- [37] Jardin N Dogan, Danelle Stevens-Watkins, Brittany Miller-Roenigk, Christopher K Marshburn, and Myles D Moody. Experiencing burnout: John henryism, gender role conflict, and anxiety among incarcerated black men. *International journal of offender therapy and comparative criminology*, page 0306624X221124841, 2022.
- [38] John F Dovidio, Samuel E Gaertner, Kerry Kawakami, and Gordon Hodson. Why can't we just get along? interpersonal biases and interracial distrust. *Cultural diversity and ethnic minority psychology*, 8(2):88, 2002.

- [39] Aaliyah El-Amin, Scott Seider, Daren Graves, Jalene Tamerat, Shelby Clark, Madora Souter, Jamie Johannsen, and Saira Malhotra. Critical consciousness: A key to student achievement. *Phi Delta Kappan*, 98(5):18–23, 2017.
- [40] Aaliyah El-Amin, Scott Seider, Daren Graves, Jalene Tamerat, Shelby Clark, Madora Souter, Jamie Johannsen, and Saira Malhotra. Critical consciousness: A key to student achievement. *Phi Delta Kappan*, pages 18–23, feb 2017.
- [41] Sheena Erete, Love Nicole, Jesse Mumm, Anfal Boussayoud, and Ihudiya Finda Ogbonnaya-Ogburu. ” that neighborhood is sketchy!” examining online conversations about social disorder in transitioning neighborhoods. In *Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems*, pages 1180–1186, 2016.
- [42] Stephanie Ewert, Bryan L Sykes, and Becky Pettit. The degree of disadvantage: Incarceration and inequality in education. *The ANNALS of the American Academy of Political and Social Science*, 651(1):24–43, 2014.
- [43] Daniel C. Feldman and Brian S. Klaas. Internet job hunting: A field study of applicant experiences with on-line recruiting. *Human Resource Management*, 41(2):175–192, 2002.
- [44] Jocelyn Fontaine and Jennifer Biess. Housing as a platform for formerly incarcerated persons. *Washington, DC: Urban Institute*, 2012.
- [45] Richard Freeman. Can we close the revolving door?: Recidivism vs. employment of ex-offenders in the US. *Prisoner Reentry Roundtable, New York University.*, pages 1–19, 2003.
- [46] Paulo Freire. *Pedagogy of the oppressed*. Bloomsbury publishing USA, 2018.
- [47] Nicholas Freudenberg, Jessie Daniels, Martha Crum, Tiffany Perkins, and Beth E. Richie. Coming home from jail: The social and health consequences of community reentry for women, male adolescents, and their families and communities. *American Journal of Public Health*, 95(10):1725–1736, 2005.
- [48] Mark S. Granovetter. The Strength of Weak Ties. *American Journal of Sociology*, 78(6):1360–1380, 5 1973.
- [49] Monika Grierson, Delvin Varghese, Mitzi Bolton, and Patrick Olivier. Design considerations for a digital service to support prison leavers. In *Designing Interactive Systems Conference*, pages 504–516, 2022.
- [50] Susila Gurusami. The Carceral Web we weave: Carceral citizens’ experiences of digital punishment and solidarity. *Punishment and Society*, 21(4):435–453, 2019.
- [51] John M Halushka. The Runaround: Punishment, Welfare, and Poverty Survival after Prison. *Social Problems*, 67(2):233–250, 2020.
- [52] David J Harding, Jeffrey D Morenoff, Cheyney C Dobson, Erin B Lane, Kendra Opatovsky, Ed-Dee G Williams, and Jessica Wyse. Families, prisoner reentry, and reintegration. In *Boys and men in African American families*, pages 105–160. Springer, 2016.

- [53] David J Harding, Jeffrey D Morenoff, and Jessica JB Wyse. On the outside. In *On the Outside*. University of Chicago Press, 2019.
- [54] David J Harding, Jessica B Wyse, Cheyney Dobson, and Jeffrey D Morenoff. Making Ends Meet After Prison. *Journal of Policy Analysis and Management*, 32(2):296–322, 2013.
- [55] Caroline Wolf Harlow. Education and correctional populations. bureau of justice statistics special report. 2003.
- [56] Nathaniel Hawthorne. *The Scarlet Letter*. Infomotions, Incorporated, 1850.
- [57] Gillian R. Hayes. The relationship of action research to human-computer interaction. *ACM Transactions on Computer-Human Interaction*, 18(3):1–20, 2011.
- [58] Gillian R Hayes, V Erick Custodio, Oliver L Haimson, Kathy Nguyen, Kathryn E Ringland, Rachel Rose Ulgado, Aaron Waterhouse, and Rachel Weiner. Mobile video modeling for employment interviews for individuals with autism. *Journal of Vocational Rehabilitation*, 43(3):275–287, 2015.
- [59] Ellen Johanna Helsper. A Corresponding Fields Model for the Links Between Social and Digital Exclusion. *Communication Theory*, 22(4):403–426, 2012.
- [60] David G. Hendry, Norah Abokhodair, Rose Paquet Kinsley, and Jill Palzkill Woelfer. Homeless Young People, Jobs, and a Future Vision: Community Members’ Perceptions of the Job Co-op. *Proceedings of the 8th International Conference on Communities and Technologies - C&T ’17*, pages 22–31, 2017.
- [61] David G Hendry, Jill Palzkill Woelfer, and Thuy Duong. U-District Job Co-op: constructing a future vision for homeless young people and employment. *Information Technology & People*, 30:602–628, 2017.
- [62] Harry J Holzer, Steven Raphael, and Michael A Stoll. Employment barriers facing ex-offenders. *Urban Institute Reentry Roundtable*, pages 1–23, 2003.
- [63] Christopher M Huggins. *Returning Home: Residential mobility, neighborhood context and recidivism*. PhD thesis, The Ohio State University, 2009.
- [64] Washington Irving. Rip Van Winkle. In *The Sketch Book of Geoffrey Crayon, Gent.*, chapter Rip Van Wi. C. S. Van Winkle, New York, 1819.
- [65] Aarti Israni, Nicole B Ellison, and Tawanna R Dillahunt. ‘a library of people’ online resource-seeking in low-income communities. *Proceedings of the ACM on Human-Computer Interaction*, 5(CSCW1):1–28, 2021.
- [66] Alexis Jemal. Critical consciousness: A critique and critical analysis of the literature. *The Urban Review*, 49(4):602–626, 2017.
- [67] Yvonne Jewkes and Bianca C. Reisdorf. A brave new world: The problems and opportunities presented by new media technologies in prisons. *Criminology and Criminal Justice*, 16(5):534–551, 2016.

- [68] Arne L Kalleberg and Aage B Sorensen. The sociology of labor markets. *Annual review of sociology*, 5(1):351–379, 1979.
- [69] Kate Kaplan. Facilitating an effective design studio workshop. *Nielsen Norman Group*, 2:2017, 2017.
- [70] Betul Keles, Niall McCrae, and Annmarie Grealish. A systematic review: the influence of social media on depression, anxiety and psychological distress in adolescents. *International journal of adolescence and youth*, 25(1):79–93, 2020.
- [71] Ibram X Kendi. *How to be an antiracist*. One world, 2019.
- [72] Nisa Khan. Five takeaways from Wayne County Jail’s new data drop, nov 2022.
- [73] Ursula Helene Kiczkowski. Successful community reentry after incarceration: exploring intangible aspects of social support during the reintegration process. *Columbia Social Work Review*, 9(1):73–85, 2011.
- [74] Rene F Kizilcec, Andrew Saltarelli, Petra Bonfert-Taylor, Michael Goudzwaard, Ella Harmonic, and Rémi Sharrock. Welcome to the course: Early social cues influence women’s persistence in computer science. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*, pages 1–13, 2020.
- [75] Michael Krezmien, Wardell Powell, Christina Bosch, Tracey Hall, and Martina Nieswandt. The use of tablet technology to support inquiry science for students incarcerated in juvenile justice settings. In *Optimizing STEM education with advanced ICTs and simulations*, pages 267–295. IGI Global, 2017.
- [76] Arno K Kumagai and Monica L Lybson. Beyond cultural competence: critical consciousness, social justice, and multicultural education. *Academic medicine*, 84(6):782–787, 2009.
- [77] Gloria Ladson-Billings and William F Tate. Toward a critical race theory of education. *Teachers college record*, 97(1):47–68, 1995.
- [78] Oxford Languages. *Oxford English Dictionary*. Oxford University Press, USA, 2013.
- [79] Pamela K. Lattimore, Danielle M. Steffey, and Christy A. Visher. Prisoner reentry in the first decade of the twenty-first century. *Victims and Offenders*, 5(3):253–267, 2010.
- [80] Liu Yi Lin, Jaime E Sidani, Ariel Shensa, Ana Radovic, Elizabeth Miller, Jason B Colditz, Beth L Hoffman, Leila M Giles, and Brian A Primack. Association between social media use and depression among us young adults. *Depression and anxiety*, 33(4):323–331, 2016.
- [81] Sadé L Lindsay. Damned if you do, damned if you don’t: How formerly incarcerated men navigate the labor market with prison credentials. *Criminology*, 2022.
- [82] Songqi Liu, Jason L. Huang, and Mo Wang. Effectiveness of job search interventions: A meta-analytic review. *Psychological Bulletin*, 140(4):1009–1041, 2014.

- [83] Alex Jiahong Lu and Tawanna R Dillahunt. Uncovering the promises and challenges of social media use in the low-wage labor market: Insights from employers. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*, pages 1–13, 2021.
- [84] Lassana Magassa. "I am not computer savvy": A look into the everyday digital literacy levels of formerly incarcerated people using a novel holistic digital literacy framework. University of Washington, 2020.
- [85] Carlos C. Mahaffey, Danelle Stevens-Watkins, and Carl Leukefeld. Life after: Examining the relationship between sociobehavioral factors and mental health among african american ex-offenders. *International Journal of Offender Therapy and Comparative Criminology*, 62(12):3873–3889, 2018. PMID: 29295666.
- [86] C Matthew and J Denis. S.(2015). sociology of racism. *International Encyclopedia of the Social & Behavioral Sciences*, 19(2):857–863.
- [87] Courtney L McCluney, Myles I Durkee, Richard E Smith II, Kathrina J Robotham, and Serenity Sai-Lai Lee. To be, or not to be... black: The effects of racial codeswitching on perceived professionalism in the workplace. *Journal of experimental social psychology*, 97:104199, 2021.
- [88] Amade M'charek. Beyond fact or fiction: On the materiality of race in practice. *Cultural anthropology*, 28(3):420–442, 2013.
- [89] Indrani Medhi and Kentaro Toyama. Full-context videos for first-time, non-literate pc users. In *2007 International Conference on Information and Communication Technologies and Development*, pages 1–9, Dec 2007.
- [90] National Institute of Corrections. Offender Reentry/Transition. <https://nicic.gov/projects/offender-reentry-transition>.
- [91] Jack L Nelson and Valerie Ooka Pang. Racism, prejudice, and the social studies curriculum. *The social studies curriculum: Purposes, problems, and possibilities*, 3:115–135, 2006.
- [92] Ihudiya Finda Ogbonnaya-Ogburu, Angela DR Smith, Alexandra To, and Kentaro Toyama. Critical race theory for hci. In *Proceedings of the 2020 CHI conference on human factors in computing systems*, pages 1–16, 2020.
- [93] Ihudiya Finda Ogbonnaya-Ogburu, Kentaro Toyama, and Tawanna Dillahunt. Returning citizens' job search and technology use: Preliminary findings. In *Companion of the 2018 ACM Conference on Computer Supported Cooperative Work and Social Computing*, pages 365–368, 2018.
- [94] Ihudiya Finda Ogbonnaya-Ogburu, Kentaro Toyama, and Tawanna R Dillahunt. Towards an effective digital literacy intervention to assist returning citizens with job search. In *Proceedings of the 2019 CHI conference on Human factors in computing systems*, pages 1–12, 2019.



- [95] Devah Pager. *Marked: Race, crime, and finding work in an era of mass incarceration*. University of Chicago Press, 2008.
- [96] Devah Pager and Lincoln Quillian. Walking the talk? what employers say versus what they do. *American Sociological Review*, 70(3):355–380, 2005.
- [97] Devah Pager and Hana Shepherd. The sociology of discrimination: Racial discrimination in employment, housing, credit, and consumer markets. *Annu. Rev. Sociol.*, 34:181–209, 2008.
- [98] Yasser A Payne and Tara M Brown. “I Don’t let These Felonies Hold me Back!”: How Street-Identified Black Men and Women Use Resilience to Radically Reframe Reentry. *Race and Justice*, 0(0):21533687211047948.
- [99] Julie Perkins, April Rand, and Allison Sheaffer. Social media usage and incarcerated women: A pilot study. *The Prison Journal*, 98(1):3–16, 2018.
- [100] Joan Petersilia. Prisoner reentry: Public safety and reintegration challenges. *The prison journal*, 81(3):360–375, 2001.
- [101] Joan Petersilia. *When prisoners come home: Parole and prisoner reentry*. Oxford University Press, 2003.
- [102] Anne Morrison Piehl, Stefan F LoBuglio, and Richard Barry Freeman. *Prospects for prisoner reentry*. Citeseer, 2003.
- [103] Michael J Piore. Impact of immigration on the labor force. *Monthly Labor Review*, pages 41–44, 1975.
- [104] Bianca C Reisdorf, Julia DeCook, Megan Foster, Jennifer Cobbina, and Ashleigh LaCourse. Digital reentry: uses of and barriers to icts in the prisoner reentry process. *Information, Communication & Society*, pages 1–18, 2021.
- [105] Bianca C Reisdorf and R V Rikard. Digital Rehabilitation: A Model of Reentry Into the Digital Age. *American Behavioral Scientist*, page 000276421877381, 2018.
- [106] Robert Riggs. Men’s Social Integration after Incarceration: The Role of Organizationally Embedded Prison-Forged Networks. *Social Problems*, pages 1–18, 2020.
- [107] David Rose. Universal design for learning. *Journal of Special Education Technology*, 15(4):47–51, 2000.
- [108] David H Rose and Anne Meyer. *Teaching every student in the digital age: Universal design for learning*. ERIC, 2002.
- [109] Monique Ross and Allison Godwin. Stories of black women in engineering industry—why they leave. In *2015 IEEE Frontiers in Education Conference (FIE)*, pages 1–5. IEEE, 2015.
- [110] Wendy D Roth. The multiple dimensions of race. *Ethnic and Racial Studies*, 39(8):1310–1338, 2016.

- [111] Johnny Saldaña. Coding techniques for quantitative and mixed data. *The Routledge Reviewer's Guide to Mixed Methods Analysis*, pages 151–160, 2021.
- [112] Nithya Sambasivan, Ed Cutrell, Kentaro Toyama, and Bonnie Nardi. Intermediated technology use in developing communities. *Proceedings of the 28th international conference on Human factors in computing systems - CHI '10*, page 2583, 2010.
- [113] Jari Saramäki, Elizabeth A Leicht, Eduardo López, Sam GB Roberts, Felix Reed-Tsochas, and Robin IM Dunbar. Persistence of social signatures in human communication. *Proceedings of the National Academy of Sciences*, 111(3):942–947, 2014.
- [114] Ari Schlesinger, W Keith Edwards, and Rebecca E Grinter. Intersectional hci: Engaging identity through gender, race, and class. In *Proceedings of the 2017 CHI conference on human factors in computing systems*, pages 5412–5427, 2017.
- [115] Allison Scott, Alexis Martin, Frieda McAlear, and Sonia Koshy. Broadening participation in computing: examining experiences of girls of color. In *Proceedings of the 2017 ACM conference on innovation and technology in computer science education*, pages 252–256, 2017.
- [116] Daniel C Semenza and Nathan W Link. How does reentry get under the skin? cumulative reintegration barriers and health in a sample of recently incarcerated men. *Social Science & Medicine*, 243:112618, 2019.
- [117] Hyunjin Seo, Darcey Altschwager, Baek-young Choi, Sejun Song, Hannah Britton, Megha Ramaswamy, Bernard Schuster, Marilyn Ault, Kaushik Ayinala, Rafida Zaman, et al. Informal technology education for women transitioning from incarceration. *ACM Transactions on Computing Education (TOCE)*, 21(2):1–16, 2021.
- [118] Hyunjin Seo, Hannah Britton, Megha Ramaswamy, Darcey Altschwager, Mathew Blomberg, Shola Aromona, Bernard Schuster, Ellie Booton, Marilyn Ault, and Joi Wickliffe. Returning to the digital world: Digital technology use and privacy management of women transitioning from incarceration. *New Media and Society*, 2020.
- [119] Amy Shlosberg, Jordan Nowotny, Elizabeth Panuccio, and Valli Rajah. ” they open the door, kick you out, and say, ’go’ ”: Reentry challenges after wrongful imprisonment. *Wrongful Conv. L. Rev.*, 1:226, 2020.
- [120] Sandra Susan Smith. *Lone pursuit: Distrust and defensive individualism among the black poor*. Russell Sage Foundation, 2007.
- [121] Sandra Susan Smith. Exploring the challenges former prisoners face finding work. In *Boys and Men in African American Families*, pages 161–171. Springer, 2016.
- [122] Sandra Susan Smith. Change Frames and the Mobilization of Social Capital for Formerly Incarcerated Job Seekers. *Du Bois Review*, 15(2):387–416, 2018.
- [123] Sandra Susan Smith and Nora CR Broege. Searching for work with a criminal record. *Social Problems*, 67(2):208–232, 2020.

- [124] Amy L Solomon, Gillian L Thomson, and Sinead Keegan. Prisoner Reentry in Michigan. *Washington, DC: Urban Institute Justice Policy Center*, 2004.
- [125] Daniel Solorzano, Miguel Ceja, and Tara Yosso. Critical race theory, racial microaggressions, and campus racial climate: The experiences of african american college students. *Journal of Negro education*, pages 60–73, 2000.
- [126] Daniel G Solórzano. Critical race theory, race and gender microaggressions, and the experience of chicana and chicano scholars. *International journal of qualitative studies in education*, 11(1):121–136, 1998.
- [127] Daniel G Solórzano and Tara J Yosso. Critical race methodology: Counter-storytelling as an analytical framework for education research. *Qualitative inquiry*, 8(1):23–44, 2002.
- [128] Claude M Steele. *Whistling Vivaldi: How stereotypes affect us and what we can do*. WW Norton & Company, 2011.
- [129] Derald Wing Sue. *Microaggressions in everyday life: Race, gender, and sexual orientation*. John Wiley & Sons, 2010.
- [130] Naomi F. Sugie. Work as Foraging: A Smartphone Study of Job Search and Employment after Prison. *American Journal of Sociology*, 123(5):1453–1491, 2018.
- [131] Naomi F Sugie and Dallas Augustine. Social support in daily life at reentry. *Beyond Recidivism: New Approaches to Research on Prisoner Reentry and Reintegration*, 197, 2020.
- [132] William F Tate IV. Chapter 4: Critical race theory and education: History, theory, and implications. *Review of research in education*, 22(1):195–247, 1997.
- [133] Beverly Daniel Tatum. *Why are all the Black kids sitting together in the cafeteria?: And other conversations about race*. Hachette UK, 2017.
- [134] Jakita O Thomas, Nicole Joseph, Arian Williams, Jamika Burge, et al. Speaking truth to power: Exploring the intersectional experiences of black women in computing. In *2018 Research on Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT)*, pages 1–8. IEEE, 2018.
- [135] Katelynn Towne, Michael Campagna, Ryan Spohn, and Amber Richey. “put it in your toolbox”: How vocational programs support formerly incarcerated persons through reentry. *Crime & Delinquency*, 69(2):316–341, 2023.
- [136] Kentaro Toyama. *Geek heresy: Rescuing social change from the cult of technology*. PublicAffairs, 2015.
- [137] Eileen M Trauth, Curtis Cain, KD Joshi, Lynette Kvasny, and Kayla Booth. Understanding underrepresentation in it through intersectionality. In *Proceedings of the 2012 iConference*, pages 56–62. 2012.
- [138] Jeremy Travis. *But they all come back: Facing the challenges of prisoner reentry*. The Urban Insitute, 2005.

- [139] Jeremy C Travis. But they all come back: facing the challenges of prisoner reentry. *Urban Institute Press*, page 391, 2005.
- [140] U.S. Census Bureau. QuickFacts Detroit city, Michigan, 2021.
- [141] U.S. Census Bureau. Population Estimates, 2022.
- [142] Sanne Verbaan, Clair Aldington, Roisin McNaney, and Jayne Wallace. Potentials of HCI for Prisons and Incarcerated Individuals. In *Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems*, CHI EA '18, pages SIG17:1–SIG17:4, New York, NY, USA, 2018. ACM.
- [143] Christy Visher, Nancy La Vigne, and Jeremy Travis. Returning home: Understanding the Challenges of Prisoner Reentry. *Urban Institute*, 2004.
- [144] Jessica Vitak, Yuting Liao, Mega Subramaniam, and Priya Kumar. 'i knew it was too good to be true' the challenges economically disadvantaged internet users face in assessing trustworthiness, avoiding scams, and developing self-efficacy online. *Proceedings of the ACM on human-computer interaction*, 2(CSCW):1–25, 2018.
- [145] Scyatta A Wallace, K Sloan Strike, Yonnette Marcia Glasgow, Kailyn Lynch, and Robert E Fullilove. 'other than that, i'm good': formerly incarcerated young black men's self-perceptions of health status. *Journal of health care for the poor and underserved*, 27(2):163–180, 2016.
- [146] David T Wellman. *Portraits of white racism*. Cambridge University Press, 1993.
- [147] E. Wheeler and T.R. Dillahunt. Navigating the job search as a low-resourced job seeker. *Conference on Human Factors in Computing Systems - Proceedings*, 2018-April:1–10, 2018.
- [148] Eva-Maria Zeissig, Chantal Lidynia, Luisa Vervier, Andera Gadeib, and Martina Ziefle. Online privacy perceptions of older adults. In *Human Aspects of IT for the Aged Population. Applications, Services and Contexts: Third International Conference, ITAP 2017, Held as Part of HCI International 2017, Vancouver, BC, Canada, July 9-14, 2017, Proceedings, Part II 3*, pages 181–200. Springer, 2017.
- [149] Kathryn Zickuhr and Mary Madden. Older adults and internet use. *Pew Research Center*, pages 1–23, 2012.