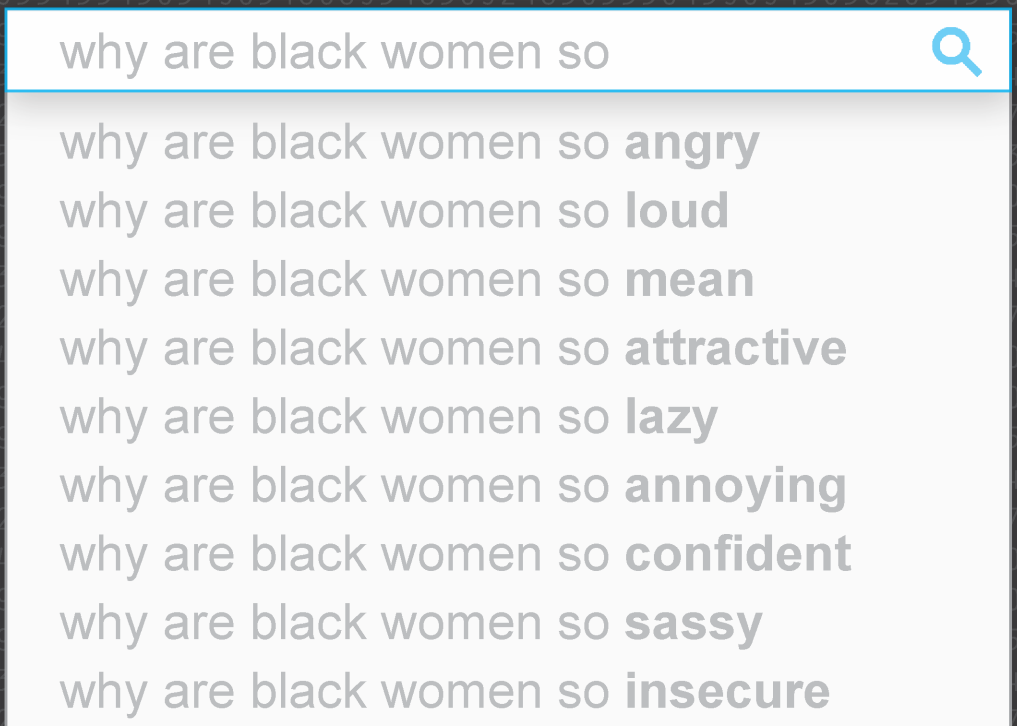

ALGORITHMS OF OPPRESSION

HOW SEARCH ENGINES REINFORCE RACISM

SAFIYA UMOJA NOBLE

CONTENTS

Introduction

The Power of Algorithms

This book is about the power of algorithms in the age of neoliberalism and the ways those digital decisions reinforce oppressive social relationships and enact new modes of racial profiling, which I have termed *technological redlining*. By making visible the ways that capital, race, and gender are factors in creating unequal conditions, I am bringing light to various forms of technological redlining that are on the rise. The near-ubiquitous use of algorithmically driven software, both visible and invisible to everyday people, demands a closer inspection of what values are prioritized in such automated decision-making systems. Typically, the practice of redlining has been most often used in real estate and banking circles, creating and deepening inequalities by race, such that, for example, people of color are more likely to pay higher interest rates or premiums just because they are Black or Latino, especially if they live in low-income neighborhoods. On the Internet and in our everyday uses of technology, discrimination is also embedded in computer code and, increasingly, in artificial intelligence technologies that we are reliant on, by choice or not. I believe that artificial intelligence will become a major human rights issue in the twenty-first century. We are only beginning to understand the long-term consequences of these decision-making tools in both masking and deepening social inequality. This book is just the start of trying to make these consequences visible. There will be many more, by myself and others, who will try to make sense of the consequences of automated decision making through algorithms in society.

Part of the challenge of understanding algorithmic oppression is to understand that mathematical formulations to drive automated decisions are made by human beings. While we often think of terms such as "big data" and "algorithms" as being benign, neutral, or objective, they are anything but. The people who make these decisions hold all types of

values, many of which openly promote racism, sexism, and false notions of meritocracy, which is well documented in studies of Silicon Valley and other tech corridors.

For example, in the midst of a federal investigation of Google's alleged persistent wage gap, where women are systematically paid less than men in the company's workforce, an "antidiversity" manifesto authored by James Damore went viral in August 2017,[1] supported by many Google employees, arguing that women are psychologically inferior and incapable of being as good at software engineering as men, among other patently false and sexist assertions. As this book was moving into press, many Google executives and employees were actively rebuking the assertions of this engineer, who reportedly works on Google search infrastructure. Legal cases have been filed, boycotts of Google from the political far right in the United States have been invoked, and calls for greater expressed commitments to gender and racial equity at Google and in Silicon Valley writ large are under way. What this antidiversity screed has underscored for me as I write this book is that some of the very people who are developing search algorithms and architecture are willing to promote sexist and racist attitudes openly at work and beyond, while we are supposed to believe that these same employees are developing "neutral" or "objective" decision-making tools. Human beings are developing the digital platforms we use, and as I present evidence of the recklessness and lack of regard that is often shown to women and people of color in some of the output of these systems, it will become increasingly difficult for technology companies to separate their systematic and inequitable employment practices, and the far-right ideological bents of some of their employees, from the products they make for the public.

My goal in this book is to further an exploration into some of these digital sense-making processes and how they have come to be so fundamental to the classification and organization of information and at what cost. As a result, this book is largely concerned with examining the commercial co-optation of Black identities, experiences, and communities in the largest and most powerful technology companies to date, namely, Google. I closely read a few distinct cases of algorithmic oppression for the depth of their social meaning to raise a public discussion of the broader implications of how privately managed, black-boxed information-sorting tools have become essential to many data-driven

decisions. I want us to have broader public conversations about the implications of the artificial intelligentsia for people who are already systematically marginalized and oppressed. I will also provide evidence and argue, ultimately, that large technology monopolies such as Google need to be broken up and regulated, because their consolidated power and cultural influence make competition largely impossible. This monopoly in the information sector is a threat to democracy, as is currently coming to the fore as we make sense of information flows through digital media such as Google and Facebook in the wake of the 2016 United States presidential election.

I situate my work against the backdrop of a twelve-year professional career in multicultural marketing and advertising, where I was invested in building corporate brands and selling products to African Americans and Latinos (before I became a university professor). Back then, I believed, like many urban marketing professionals, that companies must pay attention to the needs of people of color and demonstrate respect for consumers by offering services to communities of color, just as is done for most everyone else. After all, to be responsive and responsible to marginalized consumers was to create more market opportunity. I spent an equal amount of time doing risk management and public relations to insulate companies from any adverse risk to sales that they might experience from inadvertent or deliberate snubs to consumers of color who might perceive a brand as racist or insensitive. Protecting my former clients from enacting racial and gender insensitivity and helping them bolster their brands by creating deep emotional and psychological attachments to their products among communities of color was my professional concern for many years, which made an experience I had in fall 2010 deeply impactful. In just a few minutes while searching on the web, I experienced the perfect storm of insult and injury that I could not turn away from. While Googling things on the Internet that might be interesting to my stepdaughter and nieces, I was overtaken by the results. My search on the keywords "black girls" yielded HotBlackPussy.com as the first hit.

Hit indeed.

Since that time, I have spent innumerable hours teaching and researching all the ways in which it could be that Google could completely fail when it came to providing reliable or credible information about

Figure I.1. First search result on keywords "black girls," September 2011.

women and people of color yet experience seemingly no repercussions whatsoever. Two years after this incident, I collected searches again, only to find similar results, as documented in figure I.1.

In 2012, I wrote an article for *Bitch* magazine about how women and feminism are marginalized in search results. By August 2012, Panda (an update to Google's search algorithm) had been released, and pornography was no longer the first series of results for "black girls"; but other girls and women of color, such as Latinas and Asians, were still pornified. By August of that year, the algorithm changed, and porn was suppressed in the case of a search on "black girls." I often wonder what kind of pressures account for the changing of search results over time. It is impossible to know when and what influences proprietary algorithmic design, other than that human beings are designing them and that they are not up for public discussion, except as we engage in critique and protest.

This book was born to highlight cases of such algorithmically driven data failures that are specific to people of color and women and to underscore the structural ways that racism and sexism are fundamental to what I have coined *algorithmic oppression*. I am writing in the spirit of other critical women of color, such as Latoya Peterson, cofounder of the blog *Racialicious*, who has opined that racism is the fundamental application program interface (API) of the Internet. Peterson has argued that anti-Blackness is the foundation on which all racism toward other groups is predicated. Racism is a standard protocol for organizing behavior on the web. As she has said, so perfectly, "The idea of a n*gger API makes me think of a racism API, which is one of our core arguments all along—oppression operates in the same formats, runs the same scripts over and over. It is tweaked to be context specific, but it's all the same source code. And the key to its undoing is recognizing how many of us are ensnared in these same basic patterns and modifying our

own actions."[2] Peterson's allegation is consistent with what many people feel about the hostility of the web toward people of color, particularly in its anti-Blackness, which any perusal of YouTube comments or other message boards will serve up. On one level, the everyday racism and commentary on the web is an abhorrent thing in itself, which has been detailed by others; but it is entirely different with the corporate platform vis-à-vis an algorithmically crafted web search that offers up racism and sexism as the first results. This process reflects a corporate logic of either willful neglect or a profit imperative that makes money from racism and sexism. This inquiry is the basis of this book.

In the following pages, I discuss how "hot," "sugary," or any other kind of "black pussy" can surface as the primary representation of Black girls and women on the first page of a Google search, and I suggest that something other than the best, most credible, or most reliable information output is driving Google. Of course, Google Search is an advertising company, not a reliable information company. At the very least, we must ask when we find these kinds of results, Is this the best information? For whom? We must ask ourselves who the intended audience is for a variety of things we find, and question the legitimacy of being in a "filter bubble,"[3] when we do not want racism and sexism, yet they still find their way to us. The implications of algorithmic decision making of this sort extend to other types of queries in Google and other digital media platforms, and they are the beginning of a much-needed reassessment of information as a public good. We need a full-on reevaluation of the implications of our information resources being governed by corporate-controlled advertising companies. I am adding my voice to a number of scholars such as Helen Nissenbaum and Lucas Introna, Siva Vaidhyanathan, Alex Halavais, Christian Fuchs, Frank Pasquale, Kate Crawford, Tarleton Gillespie, Sarah T. Roberts, Jaron Lanier, and Elad Segev, to name a few, who are raising critiques of Google and other forms of corporate information control (including artificial intelligence) in hopes that more people will consider alternatives.

Over the years, I have concentrated my research on unveiling the many ways that African American people have been contained and constrained in classification systems, from Google's commercial search engine to library databases. The development of this concentration was born of my research training in library and information science. I think

of these issues through the lenses of critical information studies and critical race and gender studies. As marketing and advertising have directly shaped the ways that marginalized people have come to be represented by digital records such as search results or social network activities, I have studied why it is that digital media platforms are resoundingly characterized as "neutral technologies" in the public domain and often, unfortunately, in academia. Stories of "glitches" found in systems do not suggest that the organizing logics of the web could be broken but, rather, that these are occasional one-off moments when something goes terribly wrong with near-perfect systems. With the exception of the many scholars whom I reference throughout this work and the journalists, bloggers, and whistleblowers whom I will be remiss in not naming, very few people are taking notice. We need all the voices to come to the fore and impact public policy on the most unregulated social experiment of our times: the Internet.

These data aberrations have come to light in various forms. In 2015, *U.S. News and World Report* reported that a "glitch" in Google's algorithm led to a number of problems through auto-tagging and facial-recognition software that was apparently intended to help people search through images more successfully. The first problem for Google was that its photo application had automatically tagged African Americans as "apes" and "animals."[4] The second major issue reported by the *Post* was that Google Maps searches on the word "N*gger"[5] led to a map of the White House during Obama's presidency, a story that went viral on the Internet after the social media personality Deray McKesson tweeted it.

These incidents were consistent with the reports of Photoshopped images of a monkey's face on the image of First Lady Michelle Obama that were circulating through Google Images search in 2009. In 2015, you could still find digital traces of the Google autosuggestions that associated Michelle Obama with apes. Protests from the White House led to Google forcing the image down the image stack, from the first page, so that it was not as visible.[6] In each case, Google's position is that it is not responsible for its algorithm and that problems with the results would be quickly resolved. In the *Washington Post* article about "N*gger House," the response was consistent with other apologies by the company: "'Some inappropriate results are surfacing in Google Maps that should not be, and we apologize for any offense this may have caused,'

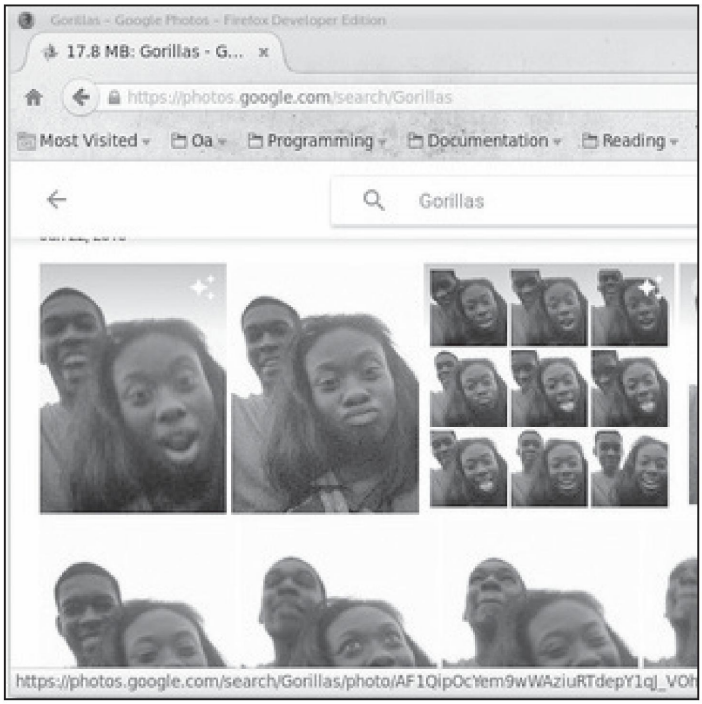

Figure I.2. Google Images results for the keyword "gorillas," April 7, 2016.

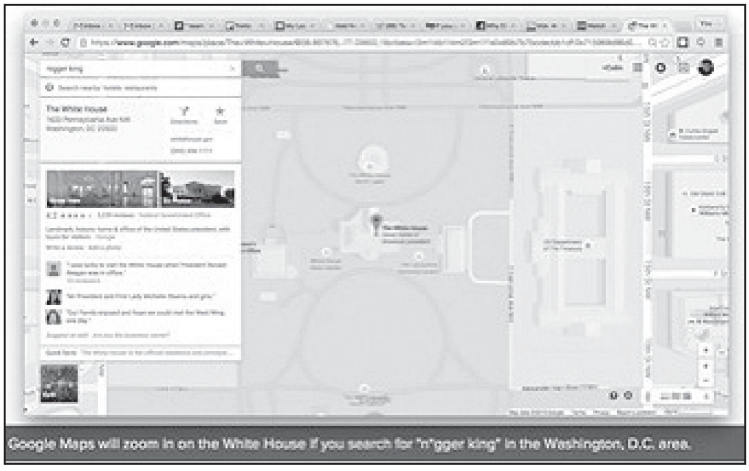

Figure I.3. Google Maps search on "N*gga House" leads to the White House, April 7, 2016.

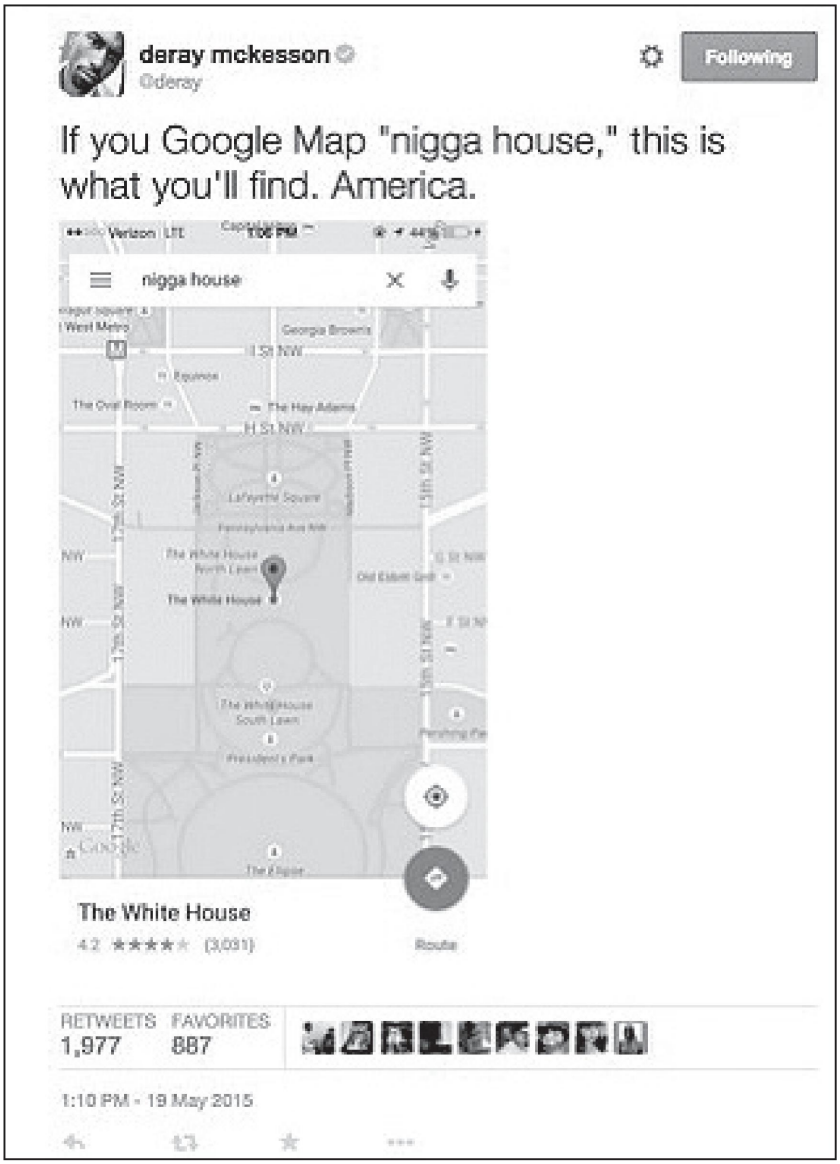

Figure I.4. Tweet by Deray McKesson about Google Maps search and the White House, 2015.

Figure I.5. Standard Google's "related" searches associates "Michelle Obama" with the term "ape."

a Google spokesperson told U.S. News in an email late Tuesday. 'Our teams are working to fix this issue quickly.'"[7]

* * *

These human and machine errors are not without consequence, and there are several cases that demonstrate how racism and sexism are part of the architecture and language of technology, an issue that needs attention and remediation. In many ways, these cases that I present are specific to the lives and experiences of Black women and girls, people largely understudied by scholars, who remain ever precarious, despite our living in the age of Oprah and Beyoncé in Shondaland. The implications of such marginalization are profound. The insights about sexist or racist biases that I convey here are important because information organizations, from libraries to schools and universities to governmental agencies, are increasingly reliant on or being displaced by a variety of web-based "tools" as if there are no political, social, or economic consequences of doing so. We need to imagine new possibilities in the area of information access and knowledge generation, particularly as headlines about "racist algorithms" continue to surface in the media with limited discussion and analysis beyond the superficial.

Inevitably, a book written about algorithms or Google in the twenty-first century is out of date immediately upon printing. Technology is changing rapidly, as are technology company configurations via mergers, acquisitions, and dissolutions. Scholars working in the fields of information, communication, and technology struggle to write about specific moments in time, in an effort to crystallize a process or a phenomenon that may shift or morph into something else soon thereafter. As a scholar of information and power, I am most interested in communicating a series of processes that have happened, which provide evidence of a constellation of concerns that the public might take up as meaningful and important, particularly as technology impacts social relations and creates unintended consequences that deserve greater attention. I have been writing this book for several years, and over time, Google's algorithms have admittedly changed, such that a search for "black girls" does not yield nearly as many pornographic results now as it did in 2011. Nonetheless, new instances of racism and sexism keep appearing in news and social media, and so I use a variety of these cases to make the point that algorithmic oppression is not just a glitch in the system but, rather, is fundamental to the operating system of the web. It has direct impact on users and on our lives beyond using Internet applications. While I have spent considerable time researching Google, this book tackles a few cases of other algorithmically driven platforms to illustrate how algorithms are serving up deleterious information about people, creating and normalizing structural and systemic isolation, or practicing digital redlining, all of which reinforce oppressive social and economic relations.

While organizing this book, I have wanted to emphasize one main point: there is a missing social and human context in some types of algorithmically driven decision making, and this matters for everyone engaging with these types of technologies in everyday life. It is of particular concern for marginalized groups, those who are problematically represented in erroneous, stereotypical, or even pornographic ways in search engines and who have also struggled for nonstereotypical or nonracist and nonsexist depictions in the media and in libraries. There is a deep body of extant research on the harmful effects of stereotyping of women and people of color in the media, and I encourage

readers of this book who do not understand why the perpetuation of racist and sexist images in society is problematic to consider a deeper dive into such scholarship.

This book is organized into six chapters. In chapter 1, I explore the important theme of corporate control over public information, and I show several key Google searches. I look to see what kinds of results Google's search engine provides about various concepts, and I offer a cautionary discussion of the implications of what these results mean in historical and social contexts. I also show what Google Images offers on basic concepts such as "beauty" and various professional identities and why we should care.

In chapter 2, I discuss how Google Search reinforces stereotypes, illustrated by searches on a variety of identities that include "black girls," "Latinas," and "Asian girls." Previously, in my work published in the *Black Scholar*,[8] I looked at the postmortem Google autosuggest searches following the death of Trayvon Martin, an African American teenager whose murder ignited the #BlackLivesMatter movement on Twitter and brought attention to the hundreds of African American children, women, and men killed by police or extrajudicial law enforcement. To add a fuller discussion to that research, I elucidate the processes involved in Google's PageRank search protocols, which range from leveraging digital footprints from people[9] to the way advertising and marketing interests influence search results to how beneficial this is to the interests of Google as it profits from racism and sexism, particularly at the height of a media spectacle.

In chapter 3, I examine the importance of noncommercial search engines and information portals, specifically looking at the case of how a mass shooter and avowed White supremacist, Dylann Roof, allegedly used Google Search in the development of his racial attitudes, attitudes that led to his murder of nine African American AME Church members while they worshiped in their South Carolina church in the summer of 2015. The provision of false information that purports to be credible news, and the devastating consequences that can come from this kind of algorithmically driven information, is an example of why we cannot afford to outsource and privatize uncurated information on the increasingly neoliberal, privatized web. I show how important records

are to the public and explore the social importance of both remembering and forgetting, as digital media platforms thrive on never or rarely forgetting. I discuss how information online functions as a type of record, and I argue that much of this information and its harmful effects should be regulated or subject to legal protections. Furthermore, at a time when "right to be forgotten" legislation is gaining steam in the European Union, efforts to regulate the ways that technology companies hold a monopoly on public information about individuals and groups need further attention in the United States. Chapter 3 is about the future of information culture, and it underscores the ways that information is not neutral and how we can reimagine information culture in the service of eradicating social inequality.

Chapter 4 is dedicated to critiquing the field of information studies and foregrounds how these issues of public information through classification projects on the web, such as commercial search, are old problems that we must solve as a scholarly field of researchers and practitioners. I offer a brief survey of how library classification projects undergird the invention of search engines such as Google and how our field is implicated in the algorithmic process of sorting and classifying information and records. In chapter 5, I discuss the future of knowledge in the public and reference the work of library and information professionals, in particular, as important to the development and cultivation of equitable classification systems, since these are the precursors to commercial search engines. This chapter is essential history for library and information professionals, who are less likely to be trained on the politics of cataloguing and classification bias in their professional training. Chapter 6 explores public policy and why we need regulation in our information environments, particularly as they are increasingly controlled by corporations.

To conclude, I move the discussion beyond Google, to help readers think about the impact of algorithms on how people are represented in other seemingly benign business transactions. I look at the "color-blind" organizing logic of Yelp and how business owners are revolting due to loss of control over how they are represented and the impact of how the public finds them. Here, I share an interview with Kandis from New York,[10] whose livelihood has been dramatically affected by public-policy changes such as the dismantling of affirmative action on

college campuses, which have hurt her local Black-hair-care business in a prestigious college town. Her story brings to light the power that algorithms have on her everyday life and leaves us with more to think about in the ecosystem of algorithmic power. The book closes with a call to recognize the importance of how algorithms are shifting social relations in many ways—more ways than this book can cover—and should be regulated with more impactful public policy in the United States than we currently have. My hope is that this book will directly impact the many kinds of algorithmic decisions that can have devastating consequences for people who are already marginalized by institutional racism and sexism, including the 99% who own so little wealth in the United States that the alarming trend of social inequality is not likely to reverse without our active resistance and intervention. Electoral politics and financial markets are just two of many of these institutional wealth-consolidation projects that are heavily influenced by algorithms and artificial intelligence. We need to cause a shift in what we take for granted in our everyday use of digital media platforms.

I consider my work a practical project, the goal of which is to eliminate social injustice and change the ways in which people are oppressed with the aid of allegedly neutral technologies. My intention in looking at these cases serves two purposes. First, we need interdisciplinary research and scholarship in information studies and library and information science that intersects with gender and women's studies, Black/African American studies, media studies, and communications to better describe and understand how algorithmically driven platforms are situated in intersectional sociohistorical contexts and embedded within social relations. My hope is that this work will add to the voices of my many colleagues across several fields who are raising questions about the legitimacy and social consequences of algorithms and artificial intelligence. Second, now, more than ever, we need experts in the social sciences and digital humanities to engage in dialogue with activists and organizers, engineers, designers, information technologists, and public-policy makers before blunt artificial-intelligence decision making trumps nuanced human decision making. This means that we must look at how the outsourcing of information practices from the public sector facilitates privatization of what we previously thought of as the public

domain[11] and how corporate-controlled governments and companies subvert our ability to intervene in these practices.

We have to ask what is lost, who is harmed, and what should be forgotten with the embrace of artificial intelligence in decision making. It is of no collective social benefit to organize information resources on the web through processes that solidify inequality and marginalization—on that point I am hopeful many people will agree.

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Decolonization is not a metaphor

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Abstract
Our goal in this article is to remind readers what is unsettling about decolonization. Decolonization brings about the repatriation of Indigenous land and life; it is not a metaphor for other things we want to do to improve our societies and schools. The easy adoption of decolonizing discourse by educational advocacy and scholarship, evidenced by the increasing number of calls to "decolonize our schools," or use "decolonizing methods," or, "decolonize student thinking", turns decolonization into a metaphor. As important as their goals may be, social justice, critical methodologies, or approaches that decenter settler perspectives have objectives that may be incommensurable with decolonization. Because settler colonialism is built upon an entangled triad structure of settler-native-slave, the decolonial desires of white, non-white, immigrant, postcolonial, and oppressed people, can similarly be entangled in resettlement, reoccupation, and reinhabitation that actually further settler colonialism. The metaphorization of decolonization makes possible a set of evasions, or "settler moves to innocence", that problematically attempt to reconcile settler guilt and complicity, and rescue settler futurity. In this article, we analyze multiple settler moves towards innocence in order to forward "an ethic of incommensurability" that recognizes what is distinct and what is sovereign for project(s) of decolonization in relation to human and civil rights based social justice projects. We also point to unsettling themes within transnational/Third World decolonizations, abolition, and critical space-place pedagogies, which challenge the coalescence of social justice endeavors, making room for more meaningful potential alliances.

Keywords: *decolonization, settler colonialism, settler moves to innocence, incommensurability, Indigenous land, decolonizing education*

> Decolonization, which sets out to change the order of the world, is, obviously, a program of complete disorder. But it cannot come as a result of magical practices, nor of a natural shock, nor of a friendly understanding. Decolonization, as we know, is a historical process: that is to say it cannot be understood, it cannot become intelligible nor clear to itself except in the exact measure that we can discern the movements which give it historical form and content.
>
> *-Franz Fanon, The Wretched of the Earth, 1963, p. 36*

> Let us admit it, the settler knows perfectly well that no phraseology can be a substitute for reality.
>
> *-Franz Fanon, The Wretched of the Earth, 1963, p. 45*

Introduction

For the past several years we have been working, in our writing and teaching, to bring attention to how settler colonialism has shaped schooling and educational research in the United States and other settler colonial nation-states. These are two distinct but overlapping tasks, the first concerned with how the invisibilized dynamics of settler colonialism mark the organization, governance, curricula, and assessment of compulsory learning, the other concerned with how settler perspectives and worldviews get to count as knowledge and research and how these perspectives - repackaged as data and findings - are activated in order to rationalize and maintain unfair social structures. We are doing this work alongside many others who - somewhat relentlessly, in writings, meetings, courses, and activism - don't allow the real and symbolic violences of settler colonialism to be overlooked.

Alongside this work, we have been thinking about what decolonization means, what it wants and requires. One trend we have noticed, with growing apprehension, is the ease with which the language of decolonization has been superficially adopted into education and other social sciences, supplanting prior ways of talking about social justice, critical methodologies, or approaches which decenter settler perspectives. Decolonization, which we assert is a distinct project from other civil and human rights-based social justice projects, is far too often subsumed into the directives of these projects, with no regard for how decolonization wants something different than those forms of justice. Settler scholars swap out prior civil and human rights based terms, seemingly to signal both an awareness of the significance of Indigenous and decolonizing theorizations of schooling and educational research, and to include Indigenous peoples on the list of considerations - as an additional special (ethnic) group or class. At a conference on educational research, it is not uncommon to hear speakers refer, almost casually, to the need to "decolonize our schools," or use "decolonizing methods," or "decolonize student thinking." Yet, we have observed a startling number of these discussions make no mention of Indigenous

peoples, our/their[1] struggles for the recognition of our/their sovereignty, or the contributions of Indigenous intellectuals and activists to theories and frameworks of decolonization. Further, there is often little recognition given to the immediate context of settler colonialism on the North American lands where many of these conferences take place.

Of course, dressing up in the language of decolonization is not as offensive as "Navajo print" underwear sold at a clothing chain store (Gaynor, 2012) and other appropriations of Indigenous cultures and materials that occur so frequently. Yet, this kind of inclusion is a form of enclosure, dangerous in how it domesticates decolonization. It is also a foreclosure, limiting in how it recapitulates dominant theories of social change. On the occasion of the inaugural issue of *Decolonization: Indigeneity, Education, & Society*, we want to be sure to clarify that decolonization is not a metaphor. When metaphor invades decolonization, it kills the very possibility of decolonization; it recenters whiteness, it resettles theory, it extends innocence to the settler, it entertains a settler future. Decolonize (a verb) and decolonization (a noun) cannot easily be grafted onto pre-existing discourses/frameworks, even if they are critical, even if they are anti-racist, even if they are justice frameworks. The easy absorption, adoption, and transposing of decolonization is yet another form of settler appropriation. When we write about decolonization, we are not offering it as a metaphor; it is not an approximation of other experiences of oppression. Decolonization is not a swappable term for other things we want to do to improve our societies and schools. Decolonization doesn't have a synonym.

Our goal in this essay is to remind readers what is unsettling about decolonization - what is unsettling and what should be unsettling. Clearly, we are advocates for the analysis of settler colonialism within education and education research and we position the work of Indigenous thinkers as central in unlocking the confounding aspects of public schooling. We, at least in part, want others to join us in these efforts, so that settler colonial structuring and Indigenous critiques of that structuring are no longer rendered invisible. Yet, this joining cannot be too easy, too open, too settled. Solidarity is an uneasy, reserved, and unsettled matter that neither reconciles present grievances nor forecloses future conflict. There are parts of the decolonization project that are not easily absorbed by human rights or civil rights based approaches to educational equity. In this essay, we think about what decolonization wants.

There is a long and bumbled history of non-Indigenous peoples making moves to alleviate the impacts of colonization. The too-easy adoption of decolonizing discourse (making decolonization a metaphor) is just one part of that history and it taps into pre-existing tropes that get in the way of more meaningful potential alliances. We think of the enactment of these tropes as a series of *moves to innocence* (Malwhinney, 1998), which problematically attempt to reconcile settler guilt and complicity, and rescue settler futurity. Here, to explain why decolonization is and requires more than a metaphor, we discuss some of these moves to innocence:

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[1] As an Indigenous scholar and a settler/trespasser/scholar writing together, we have used forward slashes to reflect our discrepant positionings in our pronouns throughout this essay.

i. Settler nativism
ii. Fantasizing adoption
iii. Colonial equivocation
iv. Conscientization
v. At risk-ing / Asterisk-ing Indigenous peoples
vi. Re-occupation and urban homesteading

Such moves ultimately represent settler fantasies of easier paths to reconciliation. Actually, we argue, attending to what is irreconcilable within settler colonial relations and what is incommensurable between decolonizing projects and other social justice projects will help to reduce the frustration of attempts at solidarity; but the attention won't get anyone off the hook from the hard, unsettling work of decolonization. Thus, we also include a discussion of interruptions that unsettle innocence and recognize incommensurability.

The set of settler colonial relations

Generally speaking, postcolonial theories and theories of coloniality attend to two forms of colonialism[2]. *External colonialism* (also called exogenous or exploitation colonization) denotes the expropriation of fragments of Indigenous worlds, animals, plants and human beings, extracting them in order to transport them to - and build the wealth, the privilege, or feed the appetites of - the colonizers, who get marked as the first world. This includes so-thought 'historic' examples such as opium, spices, tea, sugar, and tobacco, the extraction of which continues to fuel colonial efforts. This form of colonialism also includes the feeding of contemporary appetites for diamonds, fish, water, oil, humans turned workers, genetic material, cadmium and other essential minerals for high tech devices. External colonialism often requires a subset of activities properly called military colonialism - the creation of war fronts/frontiers against enemies to be conquered, and the enlistment of foreign land, resources, and people into military operations. In external colonialism, all things Native become recast as 'natural resources' - bodies and earth for war, bodies and earth for chattel.

The other form of colonialism that is attended to by postcolonial theories and theories of coloniality is *internal colonialism*, the biopolitical and geopolitical management of people, land, flora and fauna within the "domestic" borders of the imperial nation. This involves the use of

[2] Colonialism is not just a symptom of capitalism. Socialist and communist empires have also been settler empires (e.g. Chinese colonialism in Tibet). "In other words," writes Sandy Grande, "both Marxists and capitalists view land and natural resources as commodities to be exploited, in the first instance, by capitalists for personal gain, and in the second by Marxists for the good of all" (2004, p.27). Capitalism and the state are technologies of colonialism, developed over time to further colonial projects. Racism is an invention of colonialism (Silva, 2007). The current colonial era goes back to 1492, when colonial imaginary goes global.

particularized modes of control - prisons, ghettos, minoritizing, schooling, policing - to ensure the ascendancy of a nation and its white[3] elite. These modes of control, imprisonment, and involuntary transport of the human beings across borders - ghettos, their policing, their economic divestiture, and their dislocatability - are at work to authorize the metropole and conscribe her periphery. Strategies of internal colonialism, such as segregation, divestment, surveillance, and criminalization, are both structural and interpersonal.

Our intention in this descriptive exercise is not be exhaustive, or even inarguable; instead, we wish to emphasize that (a) decolonization will take a different shape in each of these contexts - though they can overlap[4] - and that (b) neither external nor internal colonialism adequately describe the form of colonialism which operates in the United States or other nation-states in which the colonizer comes to stay. *Settler colonialism* operates through internal/external colonial modes simultaneously because there is no spatial separation between metropole and colony. For example, in the United States, many Indigenous peoples have been forcibly removed from their homelands onto reservations, indentured, and abducted into state custody, signaling the form of colonization as simultaneously internal (via boarding schools and other biopolitical modes of control) and external (via uranium mining on Indigenous land in the US Southwest and oil extraction on Indigenous land in Alaska) with a frontier (the US military still nicknames all enemy territory "Indian Country"). The horizons of the settler colonial nation-state are total and require a mode of total appropriation of Indigenous life and land, rather than the selective expropriation of profit-producing fragments.

Settler colonialism is different from other forms of colonialism in that settlers come with the intention of making a new home on the land, a homemaking that insists on settler sovereignty over all things in their new domain. Thus, relying solely on postcolonial literatures or theories of coloniality that ignore settler colonialism will not help to envision the shape that decolonization must take in settler colonial contexts. Within settler colonialism, the most important concern is land/water/air/subterranean earth (land, for shorthand, in this article.) Land is what is most valuable, contested, required. This is both because the settlers make Indigenous land their new home and source of capital, and also because the disruption of Indigenous relationships to land represents a profound epistemic, ontological, cosmological violence. This violence is not temporally contained in the arrival of the settler but is reasserted each day of occupation. This is why Patrick Wolfe (1999) emphasizes that settler colonialism is a structure and not an event. In the process of settler colonialism, land is remade into property and human relationships to land are restricted to the relationship of the owner to his property. Epistemological, ontological, and cosmological relationships to land are interred, indeed made pre-modern and backward. Made savage.

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[3] In using terms as "white" and "whiteness", we are acknowledging that whiteness extends beyond phenotype.

[4] We don't treat internal/external as a taxonomy of colonialisms. They describe two operative modes of colonialism. The modes can overlap, reinforce, and contradict one another, and do so through particular legal, social, economic and political processes that are context specific.

In order for the settlers to make a place their home, they must destroy and disappear the Indigenous peoples that live there. Indigenous peoples are those who have creation stories, not colonization stories, about how we/they came to be in a particular place - indeed how we/they came to *be a place*. Our/their relationships to land comprise our/their epistemologies, ontologies, and cosmologies. For the settlers, Indigenous peoples are in the way and, in the destruction of Indigenous peoples, Indigenous communities, and over time and through law and policy, Indigenous peoples' claims to land under settler regimes, land is recast as property and as a resource. Indigenous peoples must be erased, must be made into ghosts (Tuck and Ree, forthcoming).

At the same time, settler colonialism involves the subjugation and forced labor of chattel slaves[5], whose bodies and lives become the property, and who are kept landless. Slavery in settler colonial contexts is distinct from other forms of indenture whereby *excess labor* is extracted from persons. First, chattels are commodities of labor and therefore it is the slave's *person* that is the excess. Second, unlike workers who may aspire to own land, the slave's very presence on the land is already an excess that must be dis-located. Thus, the slave is a desirable commodity but the person underneath is imprisonable, punishable, and murderable. The violence of keeping/killing the chattel slave makes them deathlike monsters in the settler imagination; they are reconfigured/disfigured as the threat, the razor's edge of safety and terror.

The settler, if known by his actions and how he justifies them, sees himself as holding dominion over the earth and its flora and fauna, as the anthropocentric normal, and as more developed, more human, more deserving than other groups or species. The settler is making a new "home" and that home is rooted in a homesteading worldview where the wild land and wild people were made for his benefit. He can only make his identity as a settler by making the land produce, and produce excessively, because "civilization" is defined as production in excess of the "natural" world (i.e. in excess of the sustainable production already present in the Indigenous world). In order for excess production, he needs excess labor, which he cannot provide himself. The chattel slave serves as that excess labor, labor that can never be paid because payment would have to be in the form of property (land). The settler's wealth is land, or a fungible version of it, and so payment for labor is impossible.[6] The settler positions himself as both superior and normal; the settler is natural, whereas the Indigenous inhabitant and the chattel slave are unnatural, even supernatural.

Settlers are not immigrants. Immigrants are beholden to the Indigenous laws and epistemologies of the lands they migrate to. Settlers become the law, supplanting Indigenous

[5] As observed by Erica Neeganagwedgin (2012), these two groups are not always distinct. Neeganagwedgin presents a history of the enslavement of Indigenous peoples in Canada as chattel slaves. In California, Mexico, and the U.S. Southwest under the Spanish mission system, Indigenous people were removed from their land and also made into chattel slaves. Under U.S. colonization, California law stipulated that Indians could be murdered and/or indentured by any "person" (white, propertied, citizen). These laws remained in effect until 1937.

[6] See Kate McCoy (forthcoming) on settler crises in early Jamestown, Virginia to pay indentured European labor with land.

laws and epistemologies. Therefore, settler nations are not immigrant nations (See also A.J. Barker, 2009).

Not unique, the United States, as a settler colonial nation-state, also operates as an empire - utilizing external forms and internal forms of colonization simultaneous to the settler colonial project. This means, and this is perplexing to some, that dispossessed people are brought onto seized Indigenous land through other colonial projects. Other colonial projects include enslavement, as discussed, but also military recruitment, low-wage and high-wage labor recruitment (such as agricultural workers and overseas-trained engineers), and displacement/migration (such as the coerced immigration from nations torn by U.S. wars or devastated by U.S. economic policy). In this set of settler colonial relations, colonial subjects who are displaced by external colonialism, as well as racialized and minoritized by internal colonialism, still occupy and settle stolen Indigenous land. Settlers are diverse, not just of white European descent, and include people of color, even from other colonial contexts. This tightly wound set of conditions and racialized, globalized relations exponentially complicates what is meant by decolonization, and by solidarity, against settler colonial forces.

Decolonization in exploitative colonial situations could involve the seizing of imperial wealth by the postcolonial subject. In settler colonial situations, seizing imperial wealth is inextricably tied to settlement and re-invasion. Likewise, the promise of integration and civil rights is predicated on securing a share of a settler-appropriated wealth (as well as expropriated 'third-world' wealth). Decolonization in a settler context is fraught because empire, settlement, and internal colony have no spatial separation. Each of these features of settler colonialism in the US context - empire, settlement, and internal colony - make it a site of contradictory decolonial desires[7].

Decolonization as metaphor allows people to equivocate these contradictory decolonial desires because it turns decolonization into an empty signifier to be filled by any track towards liberation. In reality, the tracks walk all over land/people in settler contexts. Though the details are not fixed or agreed upon, in our view, decolonization in the settler colonial context must involve the repatriation of land simultaneous to the recognition of how land and relations to land have always already been differently understood and enacted; that is, *all* of the land, and not just symbolically. This is precisely why decolonization is necessarily unsettling, especially across lines of solidarity. "Decolonization never takes place unnoticed" (Fanon, 1963, p. 36). Settler colonialism and its decolonization implicates and unsettles everyone.

[7] Decolonization is further fraught because, although the setter-native-slave triad structures settler colonialism, this does not mean that settler, native, and slave are analogs that can be used to describe corresponding identities, structural locations, worldviews, and behaviors. Nor do they mutually constitute one another. For example, Indigenous is an identity independent of the triad, and also an ascribed structural location within the triad. Chattel slave is an ascribed structural position, but not an identity. Settler describes a set of behaviors, as well as a structural location, but is eschewed as an identity.

Playing Indian and the erasure of Indigenous peoples

Recently in a symposium on the significance of Liberal Arts education in the United States, Eve presented an argument that Liberal Arts education has historically excluded any attention to or analysis of settler colonialism. This, Eve posited, makes Liberal Arts education complicit in the project of settler colonialism and, more so, has rendered the truer project of Liberal Arts education something like trying to make the settler indigenous to the land he occupies. The attendees were titillated by this idea, nodding and murmuring in approval and it was then that Eve realized that she was trying to say something incommensurable with what they expected her to say. She was completely misunderstood. Many in the audience heard this observation: that the work of Liberal Arts education is in part to teach settlers to be indigenous, as something admirable, worthwhile, something wholesome, not as a problematic point of evidence about the reach of the settler colonial erasure.

Philip Deloria (1998) explores how and why the settler wants to be made indigenous, even if only through disguise, or other forms of *playing Indian*. Playing Indian is a powerful U.S. pastime, from the Boston Tea Party, to fraternal organizations, to new age trends, to even those aforementioned Native print underwear. Deloria maintains that, "From the colonial period to the present, the Indian has skulked in and out of the most important stories various Americans have told about themselves" (p. 5).

> The indeterminacy of American identities stems, in part, from the nation's inability to deal with Indian people. Americans wanted to feel a natural affinity with the continent, and it was Indians who could teach them such aboriginal closeness. Yet, in order to control the landscape they had to destroy the original inhabitants. (Deloria, 1998, p.5)

L. Frank Baum (author of *The Wizard of Oz*) famously asserted in 1890 that the safety of white settlers was only guaranteed by the "total annihilation of the few remaining Indians" (as quoted in Hastings, 2007). D.H. Lawrence, reading James Fenimore Cooper (discussed at length later in this article), Nathaniel Hawthorne, Hector St. John de Crevecoeur, Henry David Thoreau, Herman Melville, Walt Whitman and others for his *Studies in Classic American Literature* (1924), describes Americans' fascination with Indigeneity as one of simultaneous desire and repulsion (Deloria, 1998).

> "No place," Lawrence observed, "exerts its full influence upon a newcomer until the old inhabitant is dead or absorbed." Lawrence argued that in order to meet the "demon of the continent" head on and this finalize the "unexpressed spirit of America," white Americans needed either to destroy Indians of assimilate them into a white American world...both aimed at making Indians vanish from the landscape. (Lawrence, as quoted in Deloria, 1998, p. 4).

Everything within a settler colonial society strains to destroy or assimilate the Native in order to disappear them from the land - this is how a society can have multiple simultaneous and conflicting messages about Indigenous peoples, such as all Indians are dead, located in faraway reservations, that contemporary Indigenous people are less indigenous than prior generations, and that all Americans are a "little bit Indian." These desires to erase - to let time do its thing and wait for the older form of living to die out, or to even help speed things along (euthanize) because the death of pre-modern ways of life is thought to be inevitable - these are all desires for another kind of resolve to the colonial situation, resolved through the absolute and total destruction or assimilation of original inhabitants.

Numerous scholars have observed that Indigeneity prompts multiple forms of settler anxiety, even if only because the presence of Indigenous peoples - who make *a priori* claims to land and ways of being - is a constant reminder that the settler colonial project is incomplete (Fanon, 1963; Vine Deloria, 1988; Grande, 2004; Bruyneel, 2007). The easy adoption of decolonization as a metaphor (and nothing else) is a form of this anxiety, because it is a premature attempt at reconciliation. The absorption of decolonization by settler social justice frameworks is one way the settler, disturbed by her own settler status, tries to escape or contain the unbearable searchlight of complicity, of having harmed others just by being one's self. The desire to reconcile is just as relentless as the desire to disappear the Native; it is a desire to not have to deal with this (Indian) problem anymore.

Settler moves to innocence

We observe that another component of a desire to play Indian is a settler desire to be made innocent, to find some mercy or relief in face of the relentlessness of settler guilt and haunting (see Tuck and Ree, forthcoming, on mercy and haunting). Directly and indirectly benefitting from the erasure and assimilation of Indigenous peoples is a difficult reality for settlers to accept. The weight of this reality is uncomfortable; the misery of guilt makes one hurry toward any reprieve. In her 1998 Master's thesis, Janet Mawhinney analyzed the ways in which white people maintained and (re)produced white privilege in self-defined anti-racist settings and organizations.[8] She examined the role of storytelling and self-confession - which serves to equate stories of personal exclusion with stories of structural racism and exclusion - and what she terms 'moves to innocence,' or "strategies to remove involvement in and culpability for systems of domination" (p. 17). Mawhinney builds upon Mary Louise Fellows and Sherene Razack's (1998) conceptualization of, 'the race to innocence', "the process through which a woman comes to believe her own claim of subordination is the most urgent, and that she is unimplicated in the subordination of other women" (p. 335).

Mawhinney's thesis theorizes the self-positioning of white people as simultaneously the oppressed and never an oppressor, and as having an *absence of experience* of oppressive power

[8] Thank you to Neoma Mullens for introducing Eve to Mawhinney's concept of moves to innocence.

relations (p. 100). This simultaneous self-positioning afforded white people in various purportedly anti-racist settings to say to people of color, "I don't experience the problems you do, so I don't think about it," and "tell me what to do, you're the experts here" (p. 103). "The commonsense appeal of such statements," Malwhinney observes, enables white speakers to "utter them sanguine in [their] appearance of equanimity, is rooted in the normalization of a liberal analysis of power relations" (ibid.).

In the discussion that follows, we will do some work to identify and argue against a series of what we call 'settler moves to innocence'. Settler moves to innocence are those strategies or positionings that attempt to relieve the settler of feelings of guilt or responsibility without giving up land or power or privilege, without having to change much at all. In fact, settler scholars may gain professional kudos or a boost in their reputations for being so sensitive or self-aware. Yet settler moves to innocence are hollow, they only serve the settler. This discussion will likely cause discomfort in our settler readers, may embarrass you/us or make us/you feel implicated. Because of the racialized flights and flows of settler colonial empire described above, settlers are diverse - there are white settlers and brown settlers, and peoples in both groups make moves to innocence that attempt to deny and deflect their own complicity in settler colonialism. When it makes sense to do so, we attend to moves to innocence enacted differently by white people and by brown and Black people.

In describing settler moves to innocence, our goal is to provide a framework of excuses, distractions, and diversions from decolonization. We discuss some of the moves to innocence at greater length than others, mostly because some require less explanation and because others are more central to our initial argument for the demetaphorization of decolonization. We provide this framework so that we can be more impatient with each other, less likely to accept gestures and half-steps, and more willing to press for acts which unsettle innocence, which we discuss in the final section of this article.

Moves to innocence I: Settler nativism

In this move to innocence, settlers locate or invent a long-lost ancestor who is rumored to have had "Indian blood," and they use this claim to mark themselves as blameless in the attempted eradications of Indigenous peoples. There are numerous examples of public figures in the United States who "remember" a distant Native ancestor, including Nancy Reagan (who is said to be a descendant of Pocahontas) and, more recently, Elizabeth Warren[9] and many others, illustrating how commonplace settler nativism is. Vine Deloria Jr. discusses what he calls the Indian-grandmother complex in the following account from *Custer Died for Your Sins*:

[9] See Francie Latour's interview (June 1 2012) with Kim Tallbear for more information on the Elizabeth Warren example. In the interview, Tallbear asserts that Warren's romanticized claims and the accusations of fraud are evidence of ways in which people in the U.S. misunderstand Native American identity. Tallbear insists that to understand Native American identity, "you need to get outside of that binary, one-drop framework."

> During my three years as Executive Director of the National Congress of American Indians it was a rare day when some white [person] didn't visit my office and proudly proclaim that he or she was of Indian descent...
>
> At times I became quite defensive about being a Sioux when these white people had a pedigree that was so much more respectable than mine. But eventually I came to understand their need to identify as partially Indian and did not resent them. I would confirm their wildest stories about their Indian ancestry and would add a few tales of my own hoping that they would be able to accept themselves someday and leave us alone.
>
> Whites claiming Indian blood generally tend to reinforce mythical beliefs about Indians. All but one person I met who claimed Indian blood claimed it on their grandmother's side. I once did a projection backward and discovered that evidently most tribes were entirely female for the first three hundred years of white occupation. No one, it seemed, wanted to claim a male Indian as a forebear.
>
> It doesn't take much insight into racial attitudes to understand the real meaning of the Indian-grandmother complex that plagues certain white [people]. A male ancestor has too much of the aura of the savage warrior, the unknown primitive, the instinctive animal, to make him a respectable member of the family tree. But a young Indian princess? Ah, there was royalty for the taking. Somehow the white was linked with a noble house of gentility and culture if his grandmother was an Indian princess who ran away with an intrepid pioneer...
>
> While a real Indian grandmother is probably the nicest thing that could happen to a child, why is a remote Indian princess grandmother so necessary for many white [people]? Is it because they are afraid of being classed as foreigners? Do they need some blood tie with the frontier and its dangers in order to experience what it means to be an American? Or is it an attempt to avoid facing the guilt they bear for the treatment of the Indians? (1988, p. 2-4)

Settler nativism, or what Vine Deloria Jr. calls the Indian-grandmother complex, is a settler move to innocence because it is an attempt to deflect a settler identity, while continuing to enjoy settler privilege and occupying stolen land. Deloria observes that settler nativism is gendered and considers the reasons a storied Indian grandmother might have more appeal than an Indian grandfather. On one level, it can be expected that many settlers have an ancestor who was Indigenous and/or who was a chattel slave. This is precisely the habit of settler colonialism, which pushes humans into other human communities; strategies of rape and sexual violence, and also the ordinary attractions of human relationships, ensure that settlers have Indigenous and chattel slave ancestors.

Further, though race is a social construct, Indigenous peoples and chattel slaves, particularly slaves from the continent of Africa, were/are racialized differently in ways that support/ed the logics and aims of settler colonialism (the erasure of the Indigenous person and

the capture and containment of the slave). "Indians and Black people in the US have been racialized in opposing ways that reflect their antithetical roles in the formation of US society," Patrick Wolfe (2006) explains:

> Black people's enslavement produced an inclusive taxonomy that automatically enslaved the offspring of a slave and any other parent. In the wake of slavery, this taxonomy became fully racialized in the "one-drop rule," whereby any amount of African ancestry, no matter how remote, and regardless of phenotypical appearance, makes a person Black. (p. 387)

Kim Tallbear argues that the one-drop rule dominates understandings of race in the United States and, so, most people in the US have not been able to understand Indigenous identity (Latour, 2012). Through the one-drop rule, blackness in settler colonial contexts is *expansive*, ensuring that a slave/criminal status will be *inherited* by an expanding number of 'black' descendants. Yet, Indigenous peoples have been racialized in a profoundly different way. Native American-ness[10] is *subtractive*: Native Americans are constructed to become fewer in number and *less* Native, but never exactly white, over time. Our/their status as Indigenous peoples/first inhabitants is the basis of our/their land claims and the goal of settler colonialism is to diminish claims to land over generations (or sooner, if possible). That is, Native American is a racialization that portrays contemporary Indigenous generations to be less authentic, less Indigenous than every prior generation in order to ultimately phase out Indigenous claims to land and usher in settler claims to property. This is primarily done through blood quantum registries and policies, which were forced on Indigenous nations and communities and, in some cases, have overshadowed former ways of determining tribal membership.

Wolfe (2006) explains:

> For Indians, in stark contrast, non-Indian ancestry compromised their indigeneity, producing "half-breeds," a regime that persists in the form of blood quantum regulations. As opposed to enslaved people, whose reproduction augmented their owners' wealth, Indigenous people obstructed settlers' access to land, so their increase was counterproductive. In this way, the restrictive racial classification of Indians straightforwardly furthered the logic of elimination. (p. 387)

The racializations of Indigenous people and Black people in the US settler colonial nation-state are geared to ensure the ascendancy of white settlers as the true and rightful owners and occupiers of the land.

> In the national mythologies of such societies, it is believed that white people came first and that it is they who principally developed the land; Aboriginal peoples are presumed to be mostly dead or assimilated. European settlers thus *become* the

[10] Native American, then, can be a signifier for how Indigenous peoples (over 500 federally recognized tribes and nations in the U.S. alone) are racialized into one vanishing race in the U.S. settler-colonial context.

> original inhabitants and the group most entitled to the fruits of citizenship." (Razack, 2002, p. 1-2; emphasis original.)

In the racialization of whiteness, blood quantum rules are reversed so that white people can stay white, yet claim descendance from an Indian grandmother. In 1924, the Virginia legislature passed the Racial Integrity Act, which enforced the one-drop rule *except* for white people who claimed a distant Indian grandmother - the result of strong lobbying from the aristocratic "First Families of Virginia" who all claim to have descended from Pocahontas (including Nancy Reagan, born in 1921). Known as the Pocahontas Exception, this loophole allowed thousands of white people to claim Indian ancestry, while actual Indigenous people were reclassified as "colored" and disappeared off the public record[11].

Settler nativism, through the claiming of a long-lost ancestor, invests in these specific racializations of Indigenous people and Black people, and disbelieves the sovereign authority of Indigenous nations to determine tribal membership. Dakota scholar Kim Tallbear (in an interview on the recent Elizabeth Warren example), provides an account that echoes and updates Deloria's account. Speaking to the many versions of settler nativism she has encountered, in which people say,

> "My great-great grandmother was an Indian princess." [or] "I'm descended from Pocohantas." What Elizabeth Warren said about the high cheekbones, I've had so many people from across the political spectrum say things that strange or stranger. And my point is, maybe you do have some remote ancestor. So what? You don't just get to decide you're Cherokee if the community does not recognize you as such (as quoted in Latour, 2012).

Ancestry is different from tribal membership; Indigenous identity and tribal membership are questions that Indigenous communities alone have the right to struggle over and define, not DNA tests, heritage websites, and certainly not the settler state. Settler nativism is about imagining an Indian past and a settler future; in contrast, tribal sovereignty has provided for an Indigenous present and various Indigenous intellectuals theorize decolonization as Native futures without a settler state.

Moves to innocence II: Settler adoption fantasies

Describing acts of passing, Sara Ahmed (2000) asserts the importance of being able to replace "the stranger", or take the place of the other, in the consolidation and (re)affirmation of white identity. To "become without becoming," is to reproduce "the other as 'not-I' *within* rather than *beyond* the structure of the 'I'" (p. 132). Sherene Razack, reading Ahmed, tells us that

[11] The 1940 Census only recorded 198 Indians in the State of Virginia. 6 out of 8 tribes in Virginia are currently unable to obtain federal recognition because of the racial erasure under the Racial Integrity Act (Fiske, 2004).

appropriating the other's pain occurs when, "we think we are recognizing not only the other's pain but his or her difference. Difference becomes the conduit of identification in much the same way as pain does" (Razack, 2007, p. 379). Discussing the film *Dances with Wolves* (a cinematic fiction of a Union soldier in the post-bellum Civil War era who befriends and protects the Lakota Sioux, who are represented as a noble, dying race), Ahmed critically engages the narrative, in which a white man (played by Kevin Costner) comes to respect the Sioux,

> to the point of being able to dance their dances...the white man in this example is able to 'to become without becoming' (Ahmed, 2000, p. 32)...He alone is transformed through his encounter with the Sioux, while they remain the mechanism for his transformation. He becomes the authentic knower while they remain what is to be known and consumed, and spit out again, as good Indians who confirm the white man's position as hero of the story...the Sioux remain objects, while Kevin Costner is able to go anywhere and be anything. (Ahmed's analysis, as discussed by Razack, 2007, p. 379).

For the purposes of this article, we locate the desire to *become without becoming [Indian]* within settler adoption fantasies. These fantasies can mean the adoption of Indigenous practices and knowledge, but more, refer to those narratives in the settler colonial imagination in which the Native (understanding that he is becoming extinct) hands over his land, his claim to the land, his very Indian-ness to the settler for safe-keeping. This is a fantasy that is invested in a settler futurity and dependent on the foreclosure of an Indigenous futurity.

Settler adoption fantasies are longstanding narratives in the United States, fueled by rare instances of ceremonial "adoptions", from John Smith's adoption in 1607 by Powhatan (Pocahontas' father), to Lewis Henry Morgan's adoption in 1847 by Seneca member Jimmy Johnson, to the recent adoption of actor Johnny Depp by the family of LaDonna Harris, a Comanche woman and social activist. As sovereign nations, tribes make decisions about who is considered a member, so our interest is not in whether adoptions are appropriate or legitimate. Rather, because the prevalence of the adoption narrative in American literature, film, television, holidays and history books far exceeds the actual occurrences of adoptions, we are interested in how this narrative spins a fantasy that an individual settler can become innocent, indeed heroic and indigenized, against a backdrop of national guilt. The adoption fantasy is the mythical trump card desired by critical settlers who feel remorse about settler colonialism, one that absolves them from the inheritance of settler crimes and that bequeaths a new inheritance of Native-ness *and claims to land* (which is a reaffirmation of what the settler project has been all along).

To more fully explain, we turn to perhaps the most influential version of the adoption narrative, penned by James Fenimore Cooper in 1823-1841. James Fenimore, son of "that genius in land speculation William Cooper" (Butterfield, 1954, p. 374), grew up in Six Nations territory that his father had grabbed and named after himself as Cooperstown, New York. In these Iroquois lakes, forests, and hills, James Fenimore, and later his daughter, Susan, imagined for themselves frontier romances full of tragic Indians, inventive and compassionate settlers, and virginal white/Indian women in virgin wilderness. Cooper's five-book series, collectively called

the *Leatherstocking Tales*, are foundational in the emergence of American literature. Melville called Cooper "our national author" and it was no exaggeration. His were the most widely read novels of the time and, in the age of the printing press, this meant they were the most circulated books in a U.S. print-based popular culture. Mass print established national language and identity, an "imagined community" (Anderson, 1991) from which emerges 'America' as a nation as opposed to just an assortment of former colonies. The *Tales* are credited with the constructions of the vanishing Indian, the resourceful Frontiersman, and the degenerate Negro: the pivotal triad of archetypes that forms the basis for an American national literature.

The Last of Mohicans is undoubtedly the most famous among the *Tales* and has been remade[12] into three separate television series in 1957, 1971, and 2004; an opera in 1977; a BBC radio adaptation in 1995; a 2007 Marvel comic book series; a stage drama in performance since 2010; and eleven separate films spanning 1912 to 1992. In a sense, *Last of the Mohicans* is a national narrative that has never stopped being remade[13].

Across all five books, Cooper's epic hero is Natty Bumppo, a white man 'gone native', at home in nature, praised for his wisdom and ways that are both Indian and white. In *Last of the Mohicans,* this hero becomes the adopted son of Chingachgook, fictional chief of the fictional tribe "Mohicans", who renames Natty, Nathaniel Hawkeye - thus legitimating and completing his Indigeneity. At the same time, Chingachgook conveniently fades into extinction. In a critical symbolic gesture, Chingachgook hands over his son Uncas - the last of the Mohicans - to the adopted, Indigenized white man, Hawkeye. When Uncas dies, the ramification is obvious: Hawkeye becomes without becoming the last of the Mohicans. *You are now one of us, you are now Native.* "The pale-faces are masters of the earth, and the time of the red-men has not yet come again" (Cooper 2000, p.407).

Cooper's books fantasize the founding and expansion of the U.S. settler nation by fictionalizing the period of 1740-1804, distilled into the single narrative of one man. The arc of his life stands in for the narrative of national development: the heroic settler Natty Bumppo transitions from British trapper to 'native' American, to prairie pioneer in the new Western frontier. Interestingly, the books themselves were written in reverse chronological order, starting with the pioneer, going backwards in time. Through such historical hypnosis, settler literature fabricates past lives, all the way back to an Indian past. 'I am American' becomes 'I was frontiersman, was British, was Indian'.

In this fantasy, Hawkeye is both adopter and adoptee. The act of adopting indigenous ways makes him 'deserving' to be adopted by the Indigenous. Settler fantasies of adoption alleviate the anxiety of settler un-belonging. He adopts the love of land and therefore thinks he belongs to the land. He is a first environmentalist and sentimentalist, nostalgic for vanishing

[12] Tellingly, these remakes were produced in Canada, Britain, Germany and the United States.

[13] To include all the 'remakes' of the story in its different forms (e.g. the post 9/11 historical fiction G*angs of New York*, the 2009 film *Avatar*, or the 2011 film *The Descendants* - also discussed in this article), would require an exhaustive and exhausting account well beyond the scope of this article.

Native ways. In today's jargon, he could be thought of as an eco-activist, naturalist, and Indian sympathizer. At the same time, his cultural hybridity is what makes him more 'fit' to survive - the ultimate social Darwinism - better than both British and Indian; he is the mythical American. Hawkeye, hybrid white and Indian, becomes the reluctant but nonetheless rightful inheritor of the land and warden of its vanishing people.

Similarly, the settler intellectual who hybridizes decolonial thought with Western critical traditions (metaphorizing decolonization), emerges superior to both Native intellectuals and continental theorists simultaneously. With his critical hawk-eye, he again sees the critique better than anyone and sees the world from a loftier station[14]. It is a fiction, just as Cooper's Hawkeye, just as the adoption, just as the belonging.

In addition to fabricating historical memory, the *Tales* serve to generate historical amnesia. The books were published between 1823-1841, at the height of the Jacksonian period with the Indian Removal Act of 1830 and subsequent Trail of Tears 1831-1837. During this time, 46,000 Native Americans were removed from their homelands, opening 25 million acres of land for re-settlement. The *Tales* are not only silent on Indian Removal but narrate the Indian as vanishing in an earlier time frame, and thus Indigenous people are already dead prior to removal.

Performing sympathy is critical to Cooper's project of settler innocence. It is no accident that he is often read as a sympathizer to the Indians (despite the fact that he didn't know any) in contrast to Jackson's policies of removal and genocide. Cooper is cast as the 'innocent' father of U.S. ideology, in contrast to the 'bad white men' of history.

Performing suffering is also critical to Cooper's project of settler innocence. Hawkeye takes on the (imagined) demeanor of the vanishing Native - brooding, vengeful, protecting a dying way of life, and unsuccessful in finding a mate and producing offspring. Thus sympathy and suffering are the tokens used to absorb the Native Other's difference, coded as pain, the 'not-I' into the 'I'.

The settler's personal suffering feeds his fantasy of mutuality. The 2011 film, *The Descendants,* is a modern remake of the adoption fantasy (blended with a healthy dose of settler nativism). George Clooney's character, "King" is a haole hypo-descendant of the last surviving princess of Hawai'i and reluctant inheritor of a massive expanse of land, the last wilderness on the Island of Kauai. In contrast to his obnoxious settler cousins, he earns his privilege as an overworked lawyer rather than relying on his unearned inheritance. Furthermore, Clooney's character suffers - he is a dysfunctional father, heading a dysfunctional family, watching his wife wither away in a coma, learning that she cheated on him - and so he is somehow Hawaiian at heart. Because pain is the token for oppression, claims to pain then equate to claims of being an innocent non-oppressor. By the film's end, King goes against the wishes of his profiteering settler cousins and chooses to "keep" the land, reluctantly accepting that his is the steward of the land, a responsibility bequeathed upon him as an accident of birth. This is the denouement of

[14] His lament is that no one else can see what he sees, just as Hawkeye laments his failed attempts to rescue white people from bad Indians, and good Indians from ignorant white people. He is the escapee from Plato's Cave. The rest of us are stuck in the dark.

reconciliation between the settler-I and the interiorized native-not-I within the settler. Sympathy and suffering are profoundly satisfying for settler cinema: *The Descendants* was nominated for 5 Academy Awards and won for Best Adapted Screenplay in 2012.

The beauty of this settler fantasy is that it adopts decolonization and aborts it in one gesture. Hawkeye adopts Uncas, who then conveniently dies. King adopts Hawai'i and negates the necessity for *ea*, Kanaka Maoli sovereignty. Decolonization is stillborn - rendered irrelevant because decolonization is already completed by the indigenized consciousness of the settler. Now 'we' are all Indian, all Hawaiian, and decolonization is no longer an issue. 'Our' only recourse is to move forward, however regretfully, with 'our' settler future.

In the unwritten decolonial version of Cooper's story, Hawkeye would lose his land back to the Mohawk - the real people upon whose land Cooperstown was built and whose rivers, lakes, and forests Cooper mined for his frontier romances. Hawkeye would shoot his last arrow, or his last long-rifle shot, return his eagle feather, and would be renamed Natty Bumppo, settler on Native land. The story would end with the moment of this recognition. Unresolved are the questions: Would a conversation follow after that between Native and the last settler? Would the settler leave or just vanish? Would he ask to stay, and if he did, who would say yes? These are questions that will be addressed at decolonization, and not a priori in order to appease anxieties for a settler future.

Moves to innocence III: Colonial equivocation

A more nuanced move to innocence is the homogenizing of various experiences of oppression as colonization. Calling different groups 'colonized' without describing their relationship to settler colonialism is an equivocation, "the fallacy of using a word in different senses at different stages of the reasoning" (Etymonline, 2001). In particular, describing all struggles against imperialism as 'decolonizing' creates a convenient ambiguity between decolonization and social justice work, especially among people of color, queer people, and other groups minoritized by the settler nation-state. 'We are all colonized,' may be a true statement but is deceptively embracive and vague, its inference: 'None of us are settlers.' Equivocation, or calling everything by the same name, is a move towards innocence that is especially vogue in coalition politics among people of color.

People of color who enter/are brought into the settler colonial nation-state also enter the triad of relations between settler-native-slave. We are referring here to the colonial pathways that are usually described as 'immigration' and how the refugee/immigrant/migrant is invited to be a settler in some scenarios, given the appropriate investments in whiteness, or is made an illegal, criminal presence in other scenarios. Ghetto colonialism, prisons, and under resourced compulsory schooling are specializations of settler colonialism in North America; they are

produced by the collapsing of internal, external, and settler colonialisms, into new blended categories[15].

This triad of settler-native-slave and its selective collapsibility seems to be unique to settler colonial nations. For example, all Aleut people on the Aleutian Islands were collected and placed in internment camps for four years after the bombing of Dutch Harbor; the stated rationale was the protection of the people but another likely reason was that the U.S. Government feared the Aleuts would become allies with the Japanese and/or be difficult to differentiate from potential Japanese spies. White people who lived on the Aleutian Islands at that same time were not interned. Internment in abandoned warehouses and canneries in Southeast Alaska was the cause of significant numbers of death of children and elders, physical injury, and illness among Aleut people. Aleut internment during WWII is largely ignored as part of U.S. history. The shuffling of Indigenous people between Native, enslavable Other, and Orientalized Other[16] shows how settler colonialism constructs and collapses its triad of categories.

This colonizing trick explains why certain minorities can at times become model and quasi-assimilable (as exemplified by Asian settler colonialism, civil rights, model minority discourse, and the use of 'hispanic' as an ethnic category to mean both white and non-white) yet, in times of crisis, revert to the status of foreign contagions (as exemplified by Japanese Internment, Islamophobia, Chinese Exclusion, Red Scare, anti-Irish nativism, WWII anti-semitism, and anti-Mexican-immigration). This is why 'labor' or 'workers' as an agential political class fails to activate the decolonizing project. "[S]hifting lines of the international division of labor" (Spivak, 1985, p. 84) bisect the very category of labor into caste-like bodies built for work on one hand and rewardable citizen-workers on the other. Some labor becomes settler, while excess labor becomes enslavable, criminal, murderable.

The impossibility of fully becoming a white settler - in this case, white referring to an exceptionalized position with assumed rights to invulnerability and legal supremacy - as articulated by minority literature preoccupied with "glass ceilings" and "forever foreign" status and "myth of the model minority", offers a strong critique of the myth of the democratic nation-state. However, its logical endpoint, the attainment of equal legal and cultural entitlements, is actually an investment in settler colonialism. Indeed, even the ability to be a minority citizen in the settler nation means an option to become a brown settler. For many people of color, becoming a subordinate settler is an option even when becoming white is not.

"Following stolen resources" is a phrase that Wayne has encountered, used to describe Filipino overseas labor (over 10% of the population of the Philippines is working abroad) and other migrations from colony to metropole. This phrase is an important anti-colonial framing of a

[15] E.g. Detention centers contain the foreign, non-citizen subject who is paradoxically outside of the nation yet at the mercy of imperial sovereignty within the metropole.

[16] We are using Orientalized Other in sense of the enemy other, following Edward Said's (1978) analysis of Orientalism.

colonial situation. However an anti-colonial critique is not the same as a decolonizing framework; anti-colonial critique often celebrates empowered postcolonial subjects who seize denied privileges from the metropole. This anti-to-post-colonial project doesn't strive to undo colonialism but rather to remake it and subvert it. Seeking stolen resources is entangled with settler colonialism because those resources were nature/Native first, then enlisted into the service of settlement and thus almost impossible to reclaim without re-occupying Native land. Furthermore, the postcolonial pursuit of resources is fundamentally an anthropocentric model, as land, water, air, animals, and plants are never able to become postcolonial; they remain objects to be exploited by the empowered postcolonial subject.

Equivocation is the vague equating of colonialisms that erases the sweeping scope of land as the basis of wealth, power, law in settler nation-states. Vocalizing a 'muliticultural' approach to oppressions, or remaining silent on settler colonialism while talking about colonialisms, or tacking on a gesture towards Indigenous people without addressing Indigenous sovereignty or rights, or forwarding a thesis on decolonization without regard to unsettling/deoccupying land, are equivocations. That is, they ambiguously avoid engaging with settler colonialism; they are ambivalent about minority / people of color / colonized Others *as settlers*; they are cryptic about Indigenous land rights in spaces inhabited by people of color.

Moves to innocence IV: Free your mind and the rest will follow

Fanon told us in 1963 that decolonizing the mind is the first step, not the only step toward overthrowing colonial regimes. Yet we wonder whether another settler move to innocence is to focus on decolonizing the mind, or the cultivation of critical consciousness, as if it were the sole activity of decolonization; to allow *conscientization* to stand in for the more uncomfortable task of relinquishing stolen land. We agree that curricula, literature, and pedagogy can be crafted to aid people in learning to see settler colonialism, to articulate critiques of settler epistemology, and set aside settler histories and values in search of ethics that reject domination and exploitation; this is not unimportant work. However, the front-loading of critical consciousness building can waylay decolonization, even though the experience of teaching and learning to be critical of settler colonialism can be so powerful it can feel like it is indeed making change. Until stolen land is relinquished, critical consciousness does not translate into action that disrupts settler colonialism. So, we respectfully disagree with George Clinton and Funkadelic (1970) and En Vogue (1992) when they assert that if you "free your mind, the rest (your ass) will follow."

Paulo Freire, eminent education philosopher, popular educator, and liberation theologian, wrote his celebrated book, *Pedagogy of the Oppressed*, in no small part as a response to Fanon's *Wretched of the Earth.* Its influence upon critical pedagogy and on the practices of educators committed to social justice cannot be overstated. Therefore, it is important to point out significant differences between Freire and Fanon, especially with regard to de/colonization. Freire situates the work of liberation in the minds of the oppressed, an abstract category of dehumanized worker vis-a-vis a similarly abstract category of oppressor. This is a sharp right

turn away from Fanon's work, which always positioned the work of liberation in the particularities of colonization, in the specific structural and interpersonal categories of Native and settler. Under Freire's paradigm, it is unclear who the oppressed are, even more ambiguous who the oppressors are, and it is inferred throughout that an innocent third category of enlightened human exists: "those who suffer with [the oppressed] and fight at their side" (Freire, 2000, p. 42). These words, taken from the opening dedication of *Pedagogy of the Oppressed*, invoke the same settler fantasy of mutuality based on sympathy and suffering.

Fanon positions decolonization as chaotic, an unclean break from a colonial condition that is already over determined by the violence of the colonizer and unresolved in its possible futures. By contrast, Freire positions liberation as redemption, a freeing of both oppressor and oppressed through their humanity. Humans become 'subjects' who then proceed to work on the 'objects' of the world (animals, earth, water), and indeed read the word (critical consciousness) in order to write the world (exploit nature). For Freire, there are no Natives, no Settlers, and indeed no history, and the future is simply a rupture from the timeless present. Settler colonialism is absent from his discussion, implying either that it is an unimportant analytic or that it is an already completed project of the past (a past oppression perhaps). Freire's theories of liberation resoundingly echo the allegory of Plato's Cave, a continental philosophy of mental emancipation, whereby the thinking man individualistically emerges from the dark cave of ignorance into the light of critical consciousness.

By contrast, black feminist thought roots freedom in the darkness of the cave, in that well of feeling and wisdom from which all knowledge is recreated.

> These places of possibility within ourselves are dark because they are ancient and hidden; they have survived and grown strong through darkness. Within these deep places, each one of us holds an incredible reserve of creativity and power, of unexamined and unrecorded emotion and feeling. The woman's place of power within each of us is neither white nor surface; it is dark, it is ancient, and it is deep. (Lorde, 1984, pp. 36-37)

Audre Lorde's words provide a sharp contrast to Plato's sight-centric image of liberation: "The white fathers told us, I think therefore I am; and the black mothers in each of us - the poet - whispers in our dreams, I feel therefore I can be free" (p. 38). For Lorde, writing is not action upon the world. Rather, poetry is giving a name to the nameless, "first made into language, then into idea, then into more tangible action" (p. 37). Importantly, freedom is a possibility that is not just mentally generated; it is particular and felt.

Freire's philosophies have encouraged educators to use "colonization" as a metaphor for oppression. In such a paradigm, "internal colonization" reduces to "mental colonization", logically leading to the solution of decolonizing one's mind and the rest will follow. Such philosophy conveniently sidesteps the most unsettling of questions:

> The essential thing is to see clearly, to think clearly - that is, dangerously and to answer clearly the innocent first question: what, fundamentally, is colonization? (Cesaire, 2000, p. 32)

Because colonialism is comprised of global and historical relations, Cesaire's question must be considered globally and historically. However, it cannot be reduced to a global answer, nor a historical answer. To do so is to use colonization metaphorically. "What is colonization?" must be answered specifically, with attention to the colonial apparatus that is assembled to order the relationships between particular peoples, lands, the 'natural world', and 'civilization'. Colonialism is marked by its specializations. In North America and other settings, settler sovereignty imposes sexuality, legality, raciality, language, religion and property in specific ways. Decolonization likewise must be thought through in these particularities.

> To agree on what [decolonization] is not: neither evangelization, nor a philanthropic enterprise, nor a desire to push back the frontiers of ignorance, disease, and tyranny... (Cesaire, 2000, p. 32)

We deliberately extend Cesaire's words above to assert what decolonization is not. It is not converting Indigenous politics to a Western doctrine of liberation; it is not a philanthropic process of 'helping' the at-risk and alleviating suffering; it is not a generic term for struggle against oppressive conditions and outcomes. The broad umbrella of social justice may have room underneath for all of these efforts. By contrast, decolonization specifically requires the repatriation of Indigenous land and life. Decolonization is not a metonym for social justice.

We don't intend to discourage those who have dedicated careers and lives to teaching themselves and others to be critically conscious of racism, sexism, homophobia, classism, xenophobia, and settler colonialism. We are asking them/you to consider how the pursuit of critical consciousness, the pursuit of social justice through a critical enlightenment, can also be settler moves to innocence - diversions, distractions, which relieve the settler of feelings of guilt or responsibility, and conceal the need to give up land or power or privilege.

Anna Jacobs' 2009 Master's thesis explores the possibilities for what she calls *white harm reduction* models. Harm reduction models attempt to reduce the harm or risk of specific practices. Jacobs identifies white supremacy as a public health issue that is at the root of most other public health issues. The goal of white harm reduction models, Jacobs says, is to reduce the harm that white supremacy has had on white people, and the deep harm it has caused non-white people over generations. Learning from Jacobs' analysis, we understand the curricular-pedagogical project of critical consciousness as *settler harm reduction,* crucial in the resuscitation of practices and intellectual life outside of settler ontologies. (Settler) harm reduction is intended only as a stopgap. As the environmental crisis escalates and peoples around the globe are exposed to greater concentrations of violence and poverty, the need for settler harm reduction is acute, profoundly so. At the same time we remember that, by definition, settler harm

reduction, like conscientization, is not the same as decolonization and does not inherently offer any pathways that lead to decolonization.

Moves to innocence V: A(s)t(e)risk peoples

This settler move to innocence is concerned with the ways in which Indigenous peoples are counted, codified, represented, and included/disincluded by educational researchers and other social science researchers. Indigenous peoples are rendered visible in mainstream educational research in two main ways: as "at risk" peoples and as asterisk peoples. This comprises a settler move to innocence because it erases and then conceals the erasure of Indigenous peoples within the settler colonial nation-state and moves Indigenous nations as "populations" to the margins of public discourse.

As "at risk" peoples, Indigenous students and families are described as on the verge of extinction, culturally and economically bereft, engaged or soon-to-be engaged in self-destructive behaviors which can interrupt their school careers and seamless absorption into the economy. Even though it is widely known and verified that Native youth gain access to personal and academic success when they also have access to/instruction in their home languages, most Native American and Alaskan Native youth are taught in English-only schools by temporary teachers who know little about their students' communities (Lomawaima and McCarty, 2006; Lee, 2011). Even though Indigenous knowledge systems predate, expand, update, and complicate the curricula found in most public schools, schools attended by poor Indigenous students are among those most regimented in attempts to comply with federal mandates. Though these mandates intrude on the sovereignty of Indigenous peoples, the "services" promised at the inception of these mandates do little to make the schools attended by Indigenous youth better at providing them a compelling, relevant, inspiring and meaningful education.

At the same time, Indigenous communities become the asterisk peoples, meaning they are represented by an asterisk in large and crucial data sets, many of which are conducted to inform public policy that impact our/their lives (Villegas, 2012). Education and health statistics are unavailable from Indigenous communities for a variety of reasons and, when they are made available, the size of the *n*, or the sample size, can appear to be negligible when compared to the sample size of other/race-based categories. Though Indigenous scholars such as Malia Villegas recognize that Indigenous peoples are distinct from each other but also from other racialized groups surveyed in these studies, they argue that difficulty of collecting basic education and health information about this small and heterogeneous category must be overcome in order to counter the disappearance of Indigenous particularities in public policy.

In U.S. educational research in particular, Indigenous peoples are included only as asterisks, as footnotes into dominant paradigms of educational inequality in the U.S. This can be observed in the progressive literature on school discipline, on 'underrepresented minorities' in higher education, and in the literature of reparation, i.e., redressing 'past' wrongs against non-white Others. Under such paradigms, which do important work on alleviating the symptoms of

colonialism (poverty, dispossession, criminality, premature death, cultural genocide), Indigeneity is simply an "and" or an illustration of oppression. 'Urban education', for example, is a code word for the schooling of black, brown, and ghettoized youth who form the numerical majority in divested public schools. Urban American Indians and Native Alaskans become an asterisk group, invisibilized, even though about two-thirds of Indigenous peoples in the U.S. live in urban areas, according to the 2010 census. Yet, urban Indians receive fewer federal funds for education, health, and employment than their counterparts on reservations (Berry, 2012). Similarly, Native Pasifika people become an asterisk in the Asian Pacific Islander category and their politics/epistemologies/experiences are often subsumed under a pan-ethnic Asian-American master narrative. From a settler viewpoint that concerns itself with numerical inequality, e.g. the achievement gap, underrepresentation, and the 99%'s short share of the wealth of the metropole, the asterisk is an outlier, an outnumber. It is a token gesture, an inclusion and an enclosure of Native people into the politics of equity. These acts of inclusion assimilate Indigenous sovereignty, ways of knowing, and ways of being by remaking a collective-comprised tribal identity into an individualized ethnic identity.

From a decolonizing perspective, the asterisk is a body count that does not account for Indigenous politics, educational concerns, and epistemologies. Urban land (indeed all land) is Native land. The vast majority of Native youth in North America live in urban settings. Any decolonizing urban education endeavor must address the foundations of urban land pedagogy and Indigenous politics *vis-a-vis* the settler colonial state.

Moves to innocence VI: Re-occupation and urban homesteading

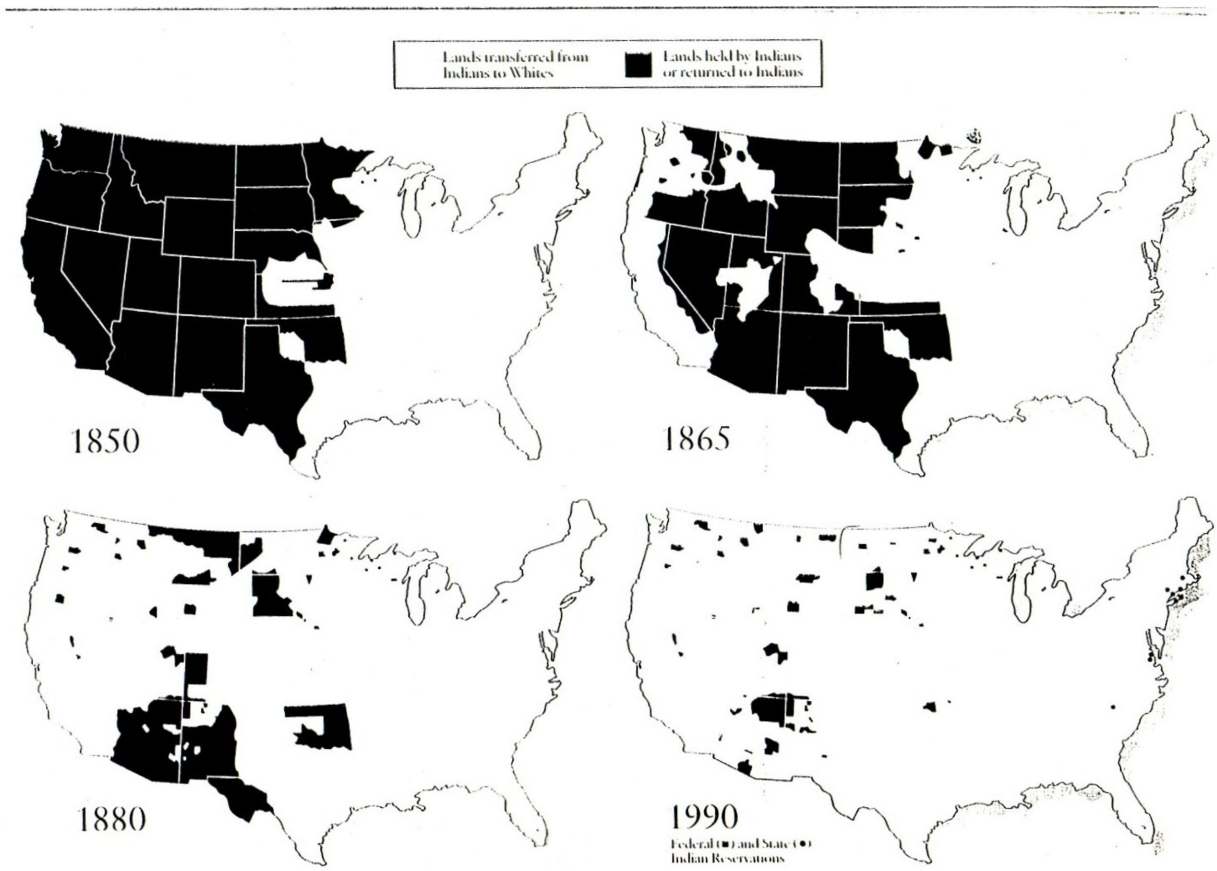
The Occupy movement for many economically marginalized people has been a welcome expression of resistance to the massive disparities in the distribution of wealth; for many Indigenous people, Occupy is another settler re-occupation on stolen land. The rhetoric of the movement relies upon problematic assumptions about social justice and is a prime example of the incommensurability between "re/occupy" and "decolonize" as political agendas. The pursuit of worker rights (and rights to work) and minoritized people's rights in a settler colonial context can appear to be anti-capitalist, but this pursuit is nonetheless largely pro-colonial. That is, the ideal of "redistribution of wealth" camouflages how much of that wealth is *land*, Native land. In Occupy, the "99%" is invoked as a deserving supermajority, in contrast to the unearned wealth of the "1%". It renders Indigenous peoples (a 0.9% 'super-minority') completely invisible and absorbed, just an asterisk group to be subsumed into the legion of occupiers.

Figure 1.1. If U.S. land were divided like U.S. wealth

For example, "If U.S. land were divided like U.S. wealth" (figure 1.1) is a popular graphic that was electronically circulated on the Internet in late 2011 in connection with the Occupy movement. The image reveals inherent assumptions about land, including: land is property; land is/belongs to the United States; land should be distributed democratically. The beliefs that land can be owned by people, and that occupation is a right, reflect a profoundly settling, anthropocentric, colonial view of the world.

In figure 1.1, the irony of mapping of wealth onto land seems to escape most of those who re-posted the images on their social networking sites and blogs: Land is already wealth; it is already divided; and its distribution is the greatest indicator of racial inequality[17]. Indeed the current wealth crisis facing the 99% spiraled with the crash in home/land ownership. Land (not money) is actually the basis for U.S. wealth. If we took away land, there would be little wealth left to redistribute.

[17] Wealth, most significantly in the form of home ownership, supercedes income as an indicator of disparities between racial groups. See discussions on the wealth gap, home ownership, and racial inequality by Thomas Shapiro (2004), in *The Hidden Cost of Being African American: How Wealth Perpetuates Inequality.*



NATIVE LAND: 100%. RESERVATION LAND: 2.3%.

Figure 1.2. If Native land were [is] divided like Native land

Settler colonization can be visually understood as the unbroken pace of invasion, and settler occupation, into Native lands: the white space in figure 1.2. Decolonization, as a process, would repatriate land to Indigenous peoples, reversing the timeline of these images.

As detailed by public intellectuals/bloggers such as *Tequila Sovereign* (Lenape scholar Joanne Barker), some Occupy sites, including Boston, Denver, Austin, and Albuquerque tried to engage in discussions about the problematic and colonial overtones of occupation (Barker, October 9, 2011). Barker blogs about a firsthand experience in bringing a proposal for a *Memorandum of Solidarity with Indigenous Peoples,*[18] to the General Assembly in Occupy Oakland. The memorandum, signed by Corrina Gould, (Chochenyo Ohlone - the first peoples of Oakland/Ohlone), Barker, and numerous other Indigenous and non-Indigenous activist-scholars, called for the acknowledgement of Oakland as already occupied and on stolen land; of the ongoing defiance by Indigenous peoples in the U.S. and around the globe against imperialism,

[18] The memorandum can be found at http://www.indybay.org/newsitems/2011/10/29/18695950.php, last retrieved June 1, 2012.

colonialism, and oppression; the need for genuine and respectful involvement of Indigenous peoples in the Occupy Oakland movement; and the aspiration to "Decolonize Oakland," rather than re-occupy it. From Barker's account of the responses from settler individuals to the memorandum,

> Ultimately, what they [settler participants in Occupy Oakland] were asking is whether or not we were asking them, as non-indigenous people, the impossible? Would their solidarity with us require them to give up their lands, their resources, their ways of life, so that we – who numbered so few, after all – could have more? Could have it all? (Barker, October 30, 2011)

These responses, resistances by settler participants to the aspiration of decolonization in Occupy Oakland, illustrate the reluctance of some settlers to engage the prospect of decolonization beyond the metaphorical or figurative level. Further, they reveal the limitations to "solidarity," without the willingness to acknowledge stolen land and how stolen land benefits settlers. "Genuine solidarity with indigenous peoples," Barker continues, "assumes a basic understanding of how histories of colonization and imperialism have produced and *still produce* the legal and economic possibility for Oakland" (ibid., emphasis original).

For social justice movements, like Occupy, to truly aspire to decolonization non-metaphorically, they would impoverish, not enrich, the 99%+ settler population of United States. Decolonization eliminates settler property rights and settler sovereignty. It requires the abolition of land as property and upholds the sovereignty of Native land and people.

There are important parallels between Occupy/Decolonize and the French/Haitian Revolutions of 1789-1799 and 1791-1804, respectively. Haiti has the dubious distinction of being "the poorest country in the Western hemisphere" (Central Intelligence Agency, 2012); yet, it was the richest of France's colonies until the Haitian Revolution, the only slave revolution to ever found a state. This paradox can be explained by what/who counts as whose property. Under French colonialism, Haiti was a worth a fortune in enslaved human beings. From the French slave owners' perspectives, Haitian independence abolished not slavery, but their property and a source of common-wealth. Unfortunately, history provides us with the exact figures on what their property was worth; in 1825, "France recognized Haitian independence by a treaty requiring Haiti to pay an indemnity of 150 million francs payable in 5 years to compensate absentee slaveowners for their losses" (Schuller, 2007, p.149). The magnitude[19] of these

[19] 150 million Francs was the equivalent of France's annual budget (and Haiti's population was less than 1% of France's), 10 times all annual Haitian exports in 1825, equivalent to $21 billion in 2010 U.S. Dollars. By contrast France sold the Louisiana Purchase to the United States in 1803 for a net sum of 42 million Francs. The indemnity demand, delivered by 12 warships armed with 500 canons, "heralded a strategy of plunder" (Schuller, 2007, p.166), as a new technology in colonial reconquest.

reparations not *for* slavery, but *to* former slave owners, plunged Haiti into eternal debt[20]. Occupy draws almost directly from the values of the French Revolution: the Commons, the General Assembly, the natural right to property, and the resistance to the decolonization of Indigenous life/land. In 1789, the French *Communes* (Commons) declared themselves a National Assembly directly "of the People" (the 99%) against the representative assembly of "the Estates" (the 1%) set up by the ruling elite, and adopted the celebrated *Declaration of the Rights of the Man and the Citizen.* Not unlike the heated discussions at the December 4, 2011 General Assembly of Occupy Oakland that ultimately rejected the proposal to change the name to "Decolonize Oakland", the 1789 National Assembly debated at great length over the language of emancipation in the *Declaration*. Ultimately, the *Declaration* abolished slavery but not property, and effectively stipulated that property trumped emancipation. While rhetorically declaring men as forever free and equal (and thus unenslavable), it assured the (revolutionary) colonial proprietors in the assembly that their chattel would be untouched, stating unequivocally: "The right to property being inviolable and sacred, no one ought to be deprived of it..." (Blackburn, 2006, p. 650).

Table 1.
Outnumbers. Incommensurable.

French Revolution	99% French, 1% Slaves[21]
Haitian Revolution	90% Slaves, 10% Whites & Free Blacks

Decolonizing the Americas means all land is repatriated and all settlers become landless. It is incommensurable with the redistribution of Native land/life as common-wealth.

Table 2.
Outnumbers. Incommensurable.

Occupy	99% Occupiers, 1% Owners
Decolonize	0.9% Indigenous[22], 99.1% Settlers[23]

[20] Haiti has literally been in debt from the moment it was recognized as a country. Haiti paid off its indemnity to France in 1937, but only through new indemnity with the United States. Ironically, in contemporary times, the Paris Club has power over Haiti's debt, and thus maintains Haiti's poverty.

[21] At 28 million people, France was the 3rd most populous country in the world in 1789, after China and India. Haiti's slave population in 1791 was approximately 452,000 - a fluctuating number as the slave mortality rate exceeded the birth rate, requiring a constant supply of newly enslaved Africans; and approximately 200,000 slaves died in the revolution. 1% refers to this number of enslaved people in Haiti relative to the French population, and does not include those enslaved in France or its other colonies.

[22] According to the 2010 U.S. census, Native Americans comprise 0.9% of U.S. inhabitants.

Our critique of Occupation is not just a critique of rhetoric. The call to "occupy everything" has legitimized a set of practices with problematic relationships to land and to Indigenous sovereignty. Urban homesteading, for example, is the practice of re-settling urban land in the fashion of self-styled pioneers in a mythical frontier. Not surprisingly, urban homesteading can also become a form of playing Indian, invoking Indigeneity as 'tradition' and claiming Indian-like spirituality while evading Indigenous sovereignty and the modern presence of actual urban Native peoples. More significant examples are Occupiers' claims to land and their imposition of Western forms of governance within their tent cities/colonies. Claiming land for the Commons and asserting consensus as the rule of the Commons, erases existing, prior, and future Native land rights, decolonial leadership, and forms of self-government.

Occupation is a move towards innocence that hides behind the numerical superiority of the settler nation, the elision of democracy with justice, and the logic that what became property under the 1% rightfully belongs to the other 99%.

In contrast to the settler labor of occupying the commons, homesteading, and possession, some scholars have begun to consider the labor of de-occupation in the undercommons, permanent fugitivity, and dispossession as possibilities for a radical black praxis. Such "a labor that is dedicated to the reproduction of social dispossession as having an ethical dimension" (Moten & Harney, 2004, p.110), includes both the refusal of acquiring property and of being property

Incommensurability is unsettling

Having elaborated on settler moves to innocence, we give a synopsis of the imbrication of settler colonialism with transnationalist, abolitionist, and critical pedagogy movements - efforts that are often thought of as exempt from Indigenous decolonizing analyses - as a synthesis of how decolonization as material, not metaphor, unsettles the innocence of these movements. These are interruptions which destabilize, un-balance, and repatriate the very terms and assumptions of some of the most radical efforts to reimagine human power relations. We argue that the opportunities for solidarity lie in what is incommensurable rather than what is common across these efforts.

We offer these perspectives on unsettling innocence because they are examples of what we might call an ethic of incommensurability, which recognizes what is distinct, what is sovereign for project(s) of decolonization in relation to human and civil rights based social justice projects. There are portions of these projects that simply cannot speak to one another, cannot be aligned or allied. We make these notations to highlight opportunities for what can only ever be strategic and contingent collaborations, and to indicate the reasons that lasting solidarities may be elusive, even undesirable. Below we point to unsettling themes that challenge the coalescence of social justice endeavors broadly assembled into three areas:

[23] Wayne would like to give special thanks to Jodi Byrd for pointing out this numerical irony.

Transnational or Third World decolonizations, Abolition, and Critical Space-Place Pedagogies. For each of these areas, we offer entry points into the literature - beginning a sort of bibliography of incommensurability.

Third world decolonizations

The anti-colonial turn towards the transnational can sometimes involve ignoring the settler colonial context where one resides and how that inhabitation is implicated in settler colonialism, in order to establish "global" solidarities that presumably suffer fewer complicities and complications. This deliberate not-seeing is morally convenient but avoids an important feature of the aforementioned selective collapsibility of settler colonial-nations states. Expressions such as "the Global South within the Global North" and "the Third World in the First World" neglect the Four Directions via a Flat Earth perspective and ambiguate First Nations with Third World migrants. For people writing on Third World decolonizations, but who do so upon Native land, we invite you to consider the permanent settler war as the theater for all imperial wars:

- the Orientalism of Indigenous Americans (Berger, 2004; Marez, 2007)
- discovery, invasion, occupation, and Commons as the claims of settler sovereignty (Ford, 2010)
- heteropatriarchy as the imposition of settler sexuality (Morgensen, 2011)
- citizenship as coercive and forced assimilation into the white settler normative (Bruyneel, 2004; Somerville, 2010)
- religion as covenant for settler nation-state (A.J. Barker, 2009; Maldonado-Torres, 2008)
- the frontier as the first and always the site of invasion and war (Byrd, 2011),
- U.S. imperialism as the expansion of settler colonialism (*ibid*)
- Asian settler colonialism (Fujikane, 2012; Fujikane, & Okamura, 2008, Saranillio, 2010a, 2010b)
- the frontier as the language of 'progress' and discovery (Maldonado-Torres, 2008)
- rape as settler colonial structure (Deer, 2009; 2010)
- the discourse of terrorism as the terror of Native retribution (Tuck & Ree, forthcoming)
- Native Feminisms as incommensurable with other feminisms (Arvin, Tuck, Morrill, forthcoming; Goeman & Denetdale, 2009).

Abolition

The abolition of slavery often presumes the expansion of settlers who own Native land and life via inclusion of emancipated slaves and prisoners into the settler nation-state. As we have noted, it is no accident that the U.S. government promised 40 acres of Indian land as reparations for plantation slavery. Likewise, indentured European laborers were often awarded tracts of 'unsettled' Indigenous land as payment at the end of their service (McCoy, forthcoming).

Communal ownership of land has figured centrally in various movements for autonomous, self-determined communities. "The land belongs to those who work it," disturbingly parrots Lockean justifications for seizing Native land as property, 'earned' through one's labor in clearing and cultivating 'virgin' land. For writers on the prison industrial complex, il/legality, and other forms of slavery, we urge you to consider how enslavement is a twofold procedure: removal from land and the creation of property (land and bodies). Thus, abolition is likewise twofold, requiring the repatriation of land and the abolition of property (land and bodies). Abolition means self-possession but not object-possession, repatriation but not reparation:

- "The animals of the world exist for their own reasons. They were not made for humans any more than black people were made for white, or women created for men" (Alice Walker, describing the work of Marjorie Spiegel, in the in the preface to Spigel's 1988 book, *The Dreaded Comparison*).
- Enslavement/removal of Native Americans (Gallay, 2009)
- Slaves who become slave-owners, savagery as enslavability, chattel slavery as a sign of civilization (Gallay, 2009)
- Black fugitivity, undercommons, and radical dispossession (Moten, 2008; Moten & Harney, 2004; Moten & Harney, 2010)
- Incarceration as a settler colonialism strategy of land dispossession (Ross, 1998; Watson, 2007)
- Native land and Native people as co-constituitive (Meyer, 2008; Kawagley, 2010)

Critical pedagogies

The many critical pedagogies that engage emancipatory education, place based education, environmental education, critical multiculturalism, and urban education often position land as public Commons or seek commonalities between struggles. Although we believe that "we must be fluent" in each other's stories and struggles (paraphrasing Alexander, 2002, p.91), we detect precisely this lack of fluency in land and Indigenous sovereignty. Yupiaq scholar, Oscar Kawagley's assertion, "We know that Mother Nature has a culture, and it is a Native culture" (2010, p. xiii), directs us to think through land as "more than a site *upon* which humans make history or as a location that accumulates history" (Goeman, 2008, p.24). The forthcoming special issue in *Environmental Education Research*, "Land Education: Indigenous, postcolonial, and decolonizing perspectives on place and environmental education research" might be a good starting point to consider the incommensurability of place-based, environmentalist, urban pedagogies with land education.

- The urban as Indigenous (Bang, 2009; Belin, 1999; Friedel, 2011; Goeman, 2008; Intertribal Friendship House & Lobo, 2002)
- Indigenous storied land as disrupting settler maps (Goeman, 2008)

- Novels, poetry, and essays by Greg Sarris, Craig Womack, Joy Harjo, Gerald Vizenor
- To Remain an Indian (Lomawaima & McCarty, 2006)
- Shadow Curriculum (Richardson, 2011)
- Red Pedagogy (Grande, 2004)
- Land Education (McCoy, Tuck, McKenzie, forthcoming)

More on incommensurability

Incommensurability is an acknowledgement that decolonization will require a change in the order of the world (Fanon, 1963). This is not to say that Indigenous peoples or Black and brown peoples take positions of dominance over white settlers; the goal is not for everyone to merely swap spots on the settler-colonial triad, to take another turn on the merry-go-round. The goal is to break the relentless structuring of the triad - a break and not a compromise (Memmi, 1991).

Breaking the settler colonial triad, in direct terms, means repatriating land to sovereign Native tribes and nations, abolition of slavery in its contemporary forms, and the dismantling of the imperial metropole. Decolonization "here" is intimately connected to anti-imperialism elsewhere. However, decolonial struggles here/there are not parallel, not shared equally, nor do they bring neat closure to the concerns of all involved - particularly not for settlers. Decolonization is not equivocal to other anti-colonial struggles. It is incommensurable.

There is so much that is incommensurable, so many overlaps that can't be figured, that cannot be resolved. Settler colonialism fuels imperialism all around the globe. Oil is the motor and motive for war and so was salt, so will be water. Settler sovereignty over these very pieces of earth, air, and water is what makes possible these imperialisms. The same yellow pollen in the water of the Laguna Pueblo reservation in New Mexico, Leslie Marmon Silko reminds us, is the same uranium that annihilated over 200,000 strangers in 2 flashes. The same yellow pollen that poisons the land from where it came. Used in the same war that took a generation of young Pueblo men. Through the voice of her character Betonie, Silko writes, "Thirty thousand years ago they were not strangers. You saw what the evil had done; you saw the witchery ranging as wide as the world" (Silko, 1982, p. 174). In Tucson, Arizona, where Silko lives, her books are now banned in schools. Only curricular materials affirming the settler innocence, ingenuity, and right to America may be taught.

In "No", her response to the 2003 United States invasion of Iraq, Mvskoke/Creek poet Joy Harjo (2004) writes, "Yes, that was me you saw shaking with bravery, with a government issued rifle on my back. I'm sorry I could not greet you, as you deserved, my relative." Don't Native Americans participate in greater rates in the military? asks the young-ish man from Viet Nam.

"Indian Country" was/is the term used in Viet Nam, Afghanistan, Iraq by the U.S. military for 'enemy territory'. The first Black American President said without blinking, "There was a point before folks had left, before we had gotten everybody back on the helicopter and were flying back to base, where they said Geronimo has been killed, and Geronimo was the code

name for bin Laden." Elmer Pratt, Black Panther leader, falsely imprisoned for 27 years, was a Vietnam Veteran, was nicknamed 'Geronimo'. Geronimo is settler nickname for the Bedonkohe Apache warrior who fought Mexican and then U.S. expansion into Apache tribal lands. The Colt .45 was perfected to kill Indigenous people during the 'liberation' of what became the Philippines, but it was first invented for the 'Indian Wars' in North America alongside The Hotchkiss Canon- a gattling gun that shot canonballs. The technologies of the permanent settler war are reserviced for foreign wars, including boarding schools, colonial schools, urban schools run by military personnel.

It is properly called Indian Country.


NEW YORK, SATURDAY, APRIL 8, 1882.

The Hotchkiss Revolving Cannon

which the cut represents, mounted on the field carriage, has been adopted by the United States for both Field and Naval purposes, and by nearly all the Governments of Europe.

They are made of 37mm., 47mm., and 57mm. calibre, and fire common and steel shell.

The 37mm. and 47mm. fire 60 to 80 shell per minute, giving 1,500 to 2,000 fragments. In service, with deliberate aim at moving objects, from 15 to 20, giving 1,200 dangerous fragments per minute.

The Naval gun is mounted on the non-recoil principle, and being aimed from the shoulder, with the ease of a musket, attains a greater accuracy at sea than any other cannon.

The range of the 37mm. gun is 3,000 yards, of the 47mm., 6,500 yards.

The steel shell from the smaller gun penetrates all torpedo boats up to 2,000 yards, and at acute angles up to 2,000 yards, and the 47mm. perforates all the unarmored ships now in service.

For Field service the accuracy of fire and regularity of range are unsurpassed.

(See Official Reports of Chief of Ordnance, U. S. A.)

FOR FURTHER INFORMATION, ADDRESS

HOTCHKISS & CO., 21 RUE ROYALE, PARIS.

Or MESSRS. GRAHAM & HAINES,

113 Chambers Street, New York.

Figure 1.3. Hotchkiss Revolving Cannon

Ideologies of US settler colonialism directly informed Australian settler colonialism. South African apartheid townships, the kill-zones in what became the Philippine colony, then nation-state, the checkerboarding of Palestinian land with checkpoints, were modeled after U.S. seizures of land and containments of Indian bodies to reservations. The racial science developed in the U.S. (a settler colonial racial science) informed Hitler's designs on racial purity ("This book is my bible" he said of Madison Grant's The Passing of the Great Race). The admiration is sometimes mutual, the doctors and administrators of forced sterilizations of black, Native, disabled, poor, and mostly female people - The Sterilization Act accompanied the Racial Integrity Act and the Pocohontas Exception - praised the Nazi eugenics program. Forced sterilizations became illegal in California in 1964. The management technologies of North American settler colonialism have provided the tools for internal colonialisms elsewhere.

So to with philosophies of state and corporate land-grabbing[24]*. The prominence of "flat world" perspectives asserts that technology has afforded a diminished significance of place and borders. The claim is that U.S. borders have become more flexible, yet simultaneously, the physical border has become more absolute and enforced. The border is no longer just a line suturing two nation-states; the U.S. now polices its borders interior to its territory and exercises*

[24] See also Arundhati Roy (2012) in Capitalism: A Ghost Story

sovereignty throughout the globe. Just as sovereignty has expanded, so has settler colonialism in partial forms.

New Orleans' lower ninth ward lies at the confluence of river channels and gulf waters, and at the intersection of land grabbing and human bondage. The collapsing of levies heralded the selective collapsibility of native-slave, again, for the purpose of reinvasion, resettlement, reinhabitation. The naturalized disaster of Hurricane Katrina's floodwaters laid the perfect cover for land speculation and the ablution of excess people. What can't be absorbed, can't be folded in (because the settlers won't give up THEIR land to advance abolition), translates into bodies stacked on top of one another in public housing and prisons, in cells, kept from the labor market, making labor for others (guards and other corrections personnel) making money for states -human homesteading. It necessitates the manufacturing of crime at rates higher than anywhere in the world. 1 in 6 people in the state of Louisiana are incarcerated, the highest number of caged people per capita, making it the prison capital of United States, and therefore the prison capital of the world.

Table 3
Prison capital of the world[25].

	Prisoners per 100,000 residents
Louisiana	1,619
United States	730
Russia	450
Iran	333
China	122
Afghanistan	62

The Yazoo and Mississippi Rivers' delta flood plain was once land so fertile that it could be squeezed for excess production of cotton, giving rise to exceptionally large-scale plantation slavery. Plantation owners lived in houses like pyramids and chattel slavery took an extreme form here, even for the South, beginning with enslaved Chitimachas, Choctaw, Natchez, Chaoüachas, Natchez, Westo, Yamasee, Euchee, Yazoo and Tawasa peoples, then later replaced by enslaved West Africans. Literally, worked to death. This "most Southern on earth"(Cobb, 1992) was a place of ultimate terror for Black people even under slavery (the worst place to be sold off too, the place of no return, the place of premature death). Black and Native people alike were induced to raid and enslave Native tribes, as a bargain for their own freedom or to defer their own enslavibility by the British, French, and then American settlers. Abolition has its incommensurabilities.

The Delta is now more segregated than it was during Jim Crow in 1950 (Aiken, 1990). The rising number of impoverished, all black townships is the result of mechanization of

[25] Source: Chang (2012).

agriculture and a fundamental settler covenant that keeps black people landless. When black labor is unlabored, the Black person underneath is the excess.

Angola Farm is perhaps the more notorious of the two State Penitentiaries along the Mississippi River. Three hundred miles upriver in the upper Delta region is Parchment Farm. Both State Penitentiaries (Mississippi and Louisana, respectively), both former slave plantations, both turned convict-leasing farms almost immediately after the Civil War by genius land speculators-cum-prison wardens. After the Union victory in the Civil War 'abolished' slavery, former Confederate Major, Samuel Lawrence James, obtained the lease to the Louisiana State Penn in 1869, and then bought Angola Farm in 1880 as land to put his chattel to work.

Figure 1.4. "The Cage: where convicts are herded like beasts of the jungle. The pan under it is the toilet receptacle. The stench from it hangs like a pall over the whole area" John Spivak, Georgia N_____, 1932.

Cages on wheels. To mobilize labor on land by landless people whose crime was mobility on land they did not own. The largest human trafficker in the world is the carceral state within

the United States, not some secret Thai triad or Russian mafia or Chinese smuggler. The U.S. carceral state is properly called neo-slavery, precisely because it is legal. It is not simply a product of exceptional racism in the U.S.; its racism is a direct function of the settler colonial mandate of land and people as property.

Black Codes made vagrancy - i.e. landlessness - illegal in the Antebellum South, making the self-possessed yet dispossessed Black body a crime (similar logic allowed for the seizure, imprisonment and indenture of any Indian by any person in California until 1937, based on the ideology that Indians are simultaneously landless and land-like). Dennis Childs writes "the slave ship and the plantation" and not Bentham's panopticon as presented by Foucault, "operated as spatial, racial, and economic templates for subsequent models of coerced labor and human warehousing - as America's original prison industrial complex" (2009, p.288). Geopolitics and biopolitics are completely knotted together in a settler colonial context.

Despite the rise of publicly traded prisons, Farms are not fundamentally capitalist ventures; at their core, they are colonial contract institutions much like Spanish Missions, Indian Boarding Schools, and ghetto school systems[26]*. The labor to cage black bodies is paid for by the state and then land is granted, worked by convict labor, to generate additional profits for the prison proprietors. However, it is the management of excess presence on the land, not the forced labor, that is the main object of slavery under settler colonialism.*

Today, 85% of people incarcerated at Angola, die there.

Conclusion

An ethic of incommensurability, which guides moves that unsettle innocence, stands in contrast to aims of reconciliation, which motivate settler moves to innocence. Reconciliation is about rescuing settler normalcy, about rescuing a settler future. Reconciliation is concerned with questions of *what will decolonization look like? What will happen after abolition? What will be the consequences of decolonization for the settler?* Incommensurability acknowledges that these questions need not, and perhaps cannot, be answered in order for decolonization to exist as a framework.

We want to say, first, that decolonization is not obliged to answer those questions - decolonization is not accountable to settlers, or settler futurity. Decolonization is accountable to Indigenous sovereignty and futurity. Still, we acknowledge the questions of those wary participants in Occupy Oakland and other settlers who want to know what decolonization will require of them. The answers are not fully in view and can't be as long as decolonization remains punctuated by metaphor. The answers will not emerge from friendly understanding, and indeed require a dangerous understanding of uncommonality that un-coalesces coalition politics - moves that may feel very unfriendly. But we will find out the answers as we get there, "in the

[26] As we write today, Louisiana has moved to privatize all of its public schools http://www.huffingtonpost.com/2012/06/01/louisiana-makes-bold-bid-_n_1563900.html

exact measure that we can discern the movements which give [decolonization] historical form and content" (Fanon, 1963, p. 36).

To fully enact an ethic of incommensurability means relinquishing settler futurity, abandoning the hope that settlers may one day be commensurable to Native peoples. It means removing the asterisks, periods, commas, apostrophes, the whereas's, buts, and conditional clauses that punctuate decolonization and underwrite settler innocence. The Native futures, the lives to be lived once the settler nation is gone - these are the unwritten possibilities made possible by an ethic of incommensurability.

> *when you take away the punctuation*
> he says of
> lines lifted from the documents about
> military-occupied land
> its acreage and location
> *you take away its finality*
> *opening the possibility of other futures*
>
> -Craig Santos Perez, Chamoru scholar and poet
> (as quoted by Voeltz, 2012)

Decolonization offers a different perspective to human and civil rights based approaches to justice, an unsettling one, rather than a complementary one. Decolonization is not an "and". It is an elsewhere.

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EXPLORING DIGITAL HUMANITIES IN INDIA

Pedagogies, Practices, and Institutional Possibilities

ROUTLEDGE

1

DIGITAL INFRASTRUCTURES AND TECHNOUTOPIAN FANTASIES

The colonial roots of technology aid in the Global South

Dhanashree Thorat

Introduction

> The point is not where you reside, but where you dwell.
> – Walter Mignolo, in *The Darker Side of Western Modernity*

This project on digital infrastructures in the Global South was written into being while I am, in fact, quite far from the geopolitical locus of my work; in Lawrence, Kansas instead of India. A bustling college town steeped in the counterculture movement of the 1960s and surrounded by sprawling fields of wheat and corn, Lawrence is likely unknown to my Indian interlocutors. I bring up my emplacement in the United States to reflect on my distance from the digital humanities (DH) community in India as well as offer some affordances of my current position in forging connections and alliances between different DH communities. I wish first to acknowledge my distance from India, both geographically and from the lived reality on the ground. Short visits, virtual calls, and transcontinental digital collaborations do not quite make up for the sensory and multilayered experiences evoked by *home*. As a postcolonial scholar and person, I understand this distance partially as a loss, removed as I am from the heart and context of my work. I also intend, however, to use my position and draw linkages between transnational colonial histories of infrastructural violence, and advocate, above all, for alliances between marginalized and formerly colonized people doing digital humanities work in the Global South and the Global North. I begin by tracing these colonial roots of infrastructural projects, then examining the case study of Facebook's technological intervention in India, and concluding with recommendations for digital infrastructural projects in the Global South.

My writing on this project was punctuated by the shrill whistle of trains passing by Lawrence each night, and this sound was a daily reminder of the violence that

historically undergirded infrastructural projects. The story of the railways in the American Midwest is one of settler colonial violence and native dispossession. The Kansas Pacific Railroad, which passed through Lawrence, like the better-known Transcontinental Railroad connecting the two American coasts, was connected to a broader settler colonial imperative of opening up the American heartland for white settlers, and the economic, military, and communication needs of the Union. Construction on the Kansas Pacific started in 1855, amidst tensions in the then Kansas Territory about what stance it would adopt on slavery and whether its allegiance lay with Abraham Lincoln and the Union, or with the pro-slavery Confederate South. These infrastructural projects were premised upon the dispossession of native tribes, whose lands were seized by the government, acquired through violence or war, or obtained fraudulently by private companies, so that the railway lines could be built and white settlers could establish towns along the lines.

The Kansas Pacific passed through Lawrence, and surrounding areas, after acquiring lands in the Delaware Reservation and the Pottawatomie Reservation at severely undervalued prices, and some of the tribes never received even that monetary compensation. David G. Taylor explains that acquiring the Indian lands was not solely about "right of way" so the Kansas Pacific could be built. Rather, promoters for the line saw the Indian lands as a means of financing railroad construction; they intended to sell parts of the land they had acquired and use unsold parts "as collateral for loans" (Taylor). Such underhanded, fraudulent schemes by private companies were backed by the Union in the form of treaties, federal funding, and military support.[1] Indian tribes opposed to the theft of their lands for railroad projects were met by the Union military which camped along the expanding railway lines. The railroad infrastructure in the American Midwest thus not only emerged from the violence of settler colonialism, but also served to perpetuate it and it received the full backing of the nation-state.

The railway depot in Lawrence has found itself on the periphery of the town today, but the whistle of the trains passing through should serve as a clarion call to remember this troubling history of railway infrastructure. This instance in American history is also repeated in other colonial contexts where transportation and communication infrastructures were built. The British undertook railway construction in Kenya to counteract Germany's colonial ambitions in Africa, and relied on Indian indentured labourers to perform the gruelling work with high mortality rates. The Panama Canal, intended to connect the Pacific and Atlantic for a faster trade route, was similarly constructed with high mortality rates among the Caribbean labour which built the canal under French, and later American supervision. In India, too, the recent history of transportation and communication infrastructures is steeped in colonial objectives. Bogart and Chaudhary explain that the "initial advocates for developing railways in India were the mercantile interests in London and Manchester" because the railway system would allow for the export of Indian raw materials like cotton, and the import of finished projects from Britain (Bogart and Chaudhary 2). Railway infrastructure developed rapidly after the Indian War of Independence in 1857, but British authorities had long recognized the strategic

military and political importance of the railways to the colonial administration.[2] Aside from the railways, the telegraph system built by the British in India also served a similar political and military purpose.

Although both these technologies and their infrastructures would later be subverted by the Indian struggle for independence, their original purpose as a means of control should not be forgotten. These technologies were not intended to benefit the natives, despite their use today by colonial apologists to show that British colonialism aided the sub-continent. Moreover, the inequalities in these original systems are transferred into contemporary communication networks; the contemporary submarine cables,[3] which bring the Internet to the world, are overlaid over extant networks like that of the telegraph cables. Just as the West was better connected through telegraph lines yesterday, countries in the Global North have more robust submarine cable networks than the Global South today. This network is so precarious in the Global South that damage to just two cable systems in 2008 led to disruptions in Internet access to 70 per cent of Egypt, 60 per cent of India, and in at least ten other countries (BBC News). In 2012, a ship anchor severed cables between East Africa and the Middle East and caused disruptions in nine countries (Curt Hopkins).

To understand these imbalances in the submarine cable network, and the resultant *precarity* of the Internet infrastructure in the Global South, we must first address the fact that these submarine cables follow pre-existing sites of power. As Manuel Castells writes, the digital network doesn't spread through the world arbitrarily. Rather, this network "diffuses selectively throughout the planet, working on the pre-existing sites, cultures, organizations, and institutions that still make up most of the material environments of people's lives" (25). As a result of this material undergirding, some actors wield more power in the global network. Castells frames this in the context of value. He argues that dominant institutions, by virtue of possessing power, continue to produce, define, and regulate value, and this leads to politics of inclusion and exclusion. In this regard, the "network society does not innovate" over older or existing social networks.

By invoking this historical and transnational scope of infrastructural projects, I align my work with what Lisa Lowe has called "the intimacies of the four continents" (Lowe 1). Lowe's seminal work argues for situating transnational forms of biopolitical settler violence in proximity, and pushing back against "a global geography that . . . conceives in terms of vast spatial distances" (18). On the one hand, colonial practices in disparate places in the four continents are interlinked, residual, and persistent, and they cannot be studied in isolation from each other. On the other hand, attention to intimacies between the continents also enables us to better discover "less visible forms of alliance, affinity, and society among variously colonized peoples beyond the metropolitan national center" (19). It was in the interest of colonial power to separate colonized people to hinder them from connecting their shared conditions of oppression and forming alliances based on that connection.

Lowe's work is particularly relevant in the context of digital infrastructures given the global colonial history of infrastructural projects in formerly colonized

nations, and the troubling encounter that the colonized had with Western modernity. As Mignolo has stated before, any conversation about "global modernities" necessarily implies "global colonialities" (3). Digital infrastructures remain steeped in the rhetoric of progress and development that conditions Western modernity. I argue that attempts to build digital infrastructures in India (and the Global South) remain rooted in technoutopian and colonial ideologies, thus advancing the notion that technological progress with Western aid will address the social, political, and economic problems vexing the Global South. While my focus in the rest of this chapter will be on India, the context for my critique remains transnational in the hope that we can identify emergent technological alliances and resistances among peoples in the Global South and historically marginalized and dispossessed groups in the Global North.

Digital infrastructure as a technological problem

In the last several years, government agencies, international organizations, corporations, and scholars alike have been invested in conversations about a global digital divide. The digital divide generally references disparities in Internet access within countries and internationally. The most direct evaluation metric for the digital divide is connectivity, but other factors, such as speed and the device used to access the Internet, are also taken into account.[4] The policy level solutions to the digital divide are often framed in technological terms. One report by UNESCO, for example, outlined five recommendations, mostly to do with Internet infrastructure, and government policy changes related to Information and Communications Technology (ICT). One section recommends that "bridging the digital divide needs a combination of complementary technologies" and advises using "satellite networks, fibre-optic cable and terrestrial wireless systems" together (The State of Broadband 62). The UNESCO report exemplifies a broader trend in public discourse on the digital divide. Cultural specificities are briefly mentioned (in this report, pertaining to a gendered digital divide), and colonial histories are seldom evoked in such reports. As I show shortly, race, class, gender, and other facets of social identity are known to affect Internet access, but these facets are treated as secondary issues (after the technological) and addressing social inequities falls outside the purview of infrastructure building. Rather, improved digital infrastructures are hoped to address these social inequities so that they don't need to be discussed at all.

This framing of the digital divide as a technological problem, rather than a historical, political, or social problem is important because it sets the terms of inter/national discourse, and limits the kind of solutions proposed to address it. In my work, I use the term "infrastructure" to denote both "technical systems and the social networks" that form around them (Anand in Larkin 331). As sociotechnical assemblages, infrastructures encompass material presence, bureaucratic logics, and ideological orientations. More recently, Alan Liu has argued that digital humanities[5] must focus critique on infrastructure because infrastructure is, today, "the mise-en-scene of culture" – infrastructure not only enables an experience of

culture, but it is part of our cultural experience today (Drafts for *Against the Cultural Singularity*). Interestingly, the Telecomm Regulatory Authority of India (TRAI), which played an important role in the Facebook debacle that I describe later, does define infrastructures as socio-technical, although it remains unclear how this conceptual framing translates into policies and practices.[6] While discussing the Digital India initiative, TRAI appears to delineate "digital infrastructures" as a separate interest area from "digital empowerment," with the former encapsulating technical advances and the latter focusing on the human element (TRAI).

To illustrate the problems inherent in this technological perspective of digital infrastructures and the digital divide, I turn to Facebook's unsuccessful attempt at offering the Free Basics initiative in India and examine the colonial paradigms about modernization, progress, and equality evoked by this initiative. While Facebook is one of many foreign tech companies operating in India, it is also one of the most popularly visited websites in the country (Alexa).[7] WhatsApp, the mobile messaging service owned by Facebook, also finds its biggest market in India – the country has the highest number of WhatsApp active users. Not only does Facebook have a vested interest in maintaining its market share in India, but also scholars need to examine the impact of Facebook's operations in India, given their potential vast impact. Facebook's international scope also makes it an appropriate site for studying digital infrastructures in the Global South. Citing the "evident dominance" of just two companies, Google and Facebook, as the most visited sites globally, Graham and De Sabbata refer to the digital scene today as the "Age of Internet Empires" (Internet Geographies). This overrepresentation is significant as "the territories carved out now will have important implications for which companies end up controlling how we communicate and access information for many years to come" (Internet Geographies). Thus, we need to keep extending the kind of postcolonial and decolonial critique that Roopika Risam and Adeline Koh called for when they noted that digital humanities must be attentive to decolonizing digital spaces and "disrupting salutary narratives of globalization and technological progress" (#dhpoco).[8]

The Free Basics initiative launched by Facebook purports to bring Internet access to underserved communities in the Global South. The scheme is grounded in the understanding that mobile phones, rather than computers or tablets, are access points to the Internet for many countries in the Global South. As such, Facebook partners with local telecommunication companies to offer selected online content for free to customers. This online content varies from country to country, but it is supposed to be localized and include a mix of websites delivering essential content, including news, health, jobs, government services, and so on. Customers don't need wifi to access these services, and the sites have a low bandwidth load. Service providers who wish to make their online services available on Free Basics have to go through a vetting process controlled by Facebook. Not surprisingly, Facebook is one of the free services offered as an essential on this platform. Internationally, the scheme is now available in sixty-three countries, mostly in the Global South, and claims to have twenty-five million users worldwide.[9]

In India, for a two-year period from 2014 to 2016, Facebook aggressively conducted a campaign on behalf of Free Basics. Partnering with the Indian telecommunication company, Reliance, Facebook recruited a number of Indian companies to offer their content through the Free Basics platform and sought buy-in from the Indian public to use Free Basics. This campaign might largely masquerade under the rhetoric of advertising and marketing, but it should be seen as a biopolitical maneuver to shape the technosocial infrastructure and imaginary of the Indian sub-continent. The campaign was replete with colonial tropes, bringing together troubling narratives about technological primitivism and the white man's burden. The India framed in the campaign was a simultaneous space of spiritual enlightenment, a new frontier for the digital empire of Facebook, and the testing site for techno-capitalist schemes that could be taken elsewhere if they were successful. India was the sixth country where the initiative had officially launched, and it was the first one in Asia, and conquering the digital frontier of India would have eased the adoption of Free Basics globally.

The advertising campaign received much publicity when Mark Zuckerberg met Indian Prime Minister Narendra Modi as part of latter's tour of Silicon Valley in 2015. Courting the Indian Prime Minister in Silicon Valley became one of the high profile moves that Facebook would make on behalf of Free Basics, and one of the reasons why their campaign was interpreted in colonialist terms. As Deepika Bahri explained, by "partner[ing] with local elites and vested interests," Facebook operated on a colonial model of intervention in the Global South (Bahri in Lafrance).[10] At a town hall event hosted by Facebook for Modi, Zuckerberg announced that his investment in India was personal because India had a part in inspiring him in the early days of Facebook. In 2008, while under pressure to sell the company, Zuckerberg had been advised by Steve Jobs, the Apple CEO, to visit a temple in India "to reconnect to what I believed was the mission of the company" (Annie Gowan – Independent). Zuckerberg did spend a month in India in 2008 and later declared that the trip allowed him to find some spiritual rejuvenation as it "reinforced for me the importance of what we were doing" (Annie Gowan – Independent).

Indian spiritualism has long been co-opted into the American counterculture movement of the sixties and seventies, with gurus, meditation, and yoga offering a path to a transcendent state of mind. And for Silicon Valley technocrats steeped in the counterculture, India is configured as a space where white Westerners visit for spiritual enlightenment, and to escape from the hypermodern, urban landscape of Silicon Valley.[11] This leitmotif of India as a mystical and spiritual place evoked by Steve Jobs and Mark Zuckerberg is part of the older Orientalist discourse of colonialism. If the Orient was framed as a mystical or mysterious site, it absolved colonizers from parsing through cultural specificities and placed these cultures in an otherworldly realm beyond the rational logic of Enlightenment thinking.[12] The Orient, Said observes, "was overvalued for its pantheism, its spirituality" and "such overesteem was [inevitably] followed by a counterresponse," in which the Orient was also framed as backward, barbaric, and so on (Said 150).

Facebook's Free Basics was launched in India against this backdrop of Orientalist discourse, and Zuckerberg's early words already anticipate the emergence of an "Other" subject to which Western aid will be extended. The richness of India's spiritual traditions form the contrast to the abjectness of its technological scene. Indeed, declaring Internet access as a fundamental human right, and framing Facebook as a humanitarian agent, Zuckerberg announced at this town hall that Facebook was working to bring Internet access to four billion people in the world. I use the verb "bring" with the many implications of that term in this context: there is a sense of a unilateral decision made by Facebook on behalf of the people of the Global South; there is an element of "bringing around" or "bringing about," of persuading people about Facebook's mission; and there is an implicit notion that Indians must be brought to the digital panacea promised by Facebook because they are in a space of technological deprivation. This is why Mignolo argued that the "rhetoric of modernity is a rhetoric of salvation (by conversion yesterday, by development today" (xxiv).

To bring the Indian public about, Facebook launched a massive marketing campaign premised on technoutopian fantasies; by this, I mean the notion that technological advancement is a necessity for improving human lives and human rights. The advertisements, publicity material, and op-ed pieces published by Facebook in late 2015 paralleled colonial ideologies touting Western modernity. A two-page advertisement appeared in *The Times of India*, one of the major national newspapers in India, in December 2015.

The advertisement makes several extravagant promises about what Free Basics offers to the Indian poor, ranging from the idealistic (digital equality, connectedness) to the concrete (jobs). The ad also communicates the notion that Free Basics is absolutely essential for the future of the nation. Rhetorical appeals about national development are repeated in a number of phrases: "opportunities online," "better future," "digital equality," and progress, and most strongly, "move India forward" (*TOI* ad). What these terms mean or any specific details about this future are not offered, leaving the reader to imbue these terms with a meaning suitable to the reader's own interests, desires, and (possibly) marginality. Above all, this advertisement makes an argument based on absence: what the reader is supposed to fill in is the negative of these utterances: that a nation lacking in digital infrastructure supported by foreign investment cannot progress, that it lacks a good future, and that it fails to provide opportunities for its citizens. (I am less interested here in the truth value of these statements then their presentation as rhetoric.)

This language of progress and modernization used in the advertisement is far from innocuous because to say that Free Basics will move "India forward" is also to say that India is currently backward. This notion is reinforced by the visuals of the advertisement, which are rich in traditional and cultural symbols (the henna, bangles, and traditional outfits) and frame both the young women as traditional subjects who have embraced Western modernity. Such imagery, particularly of young girls and women, recurs in other Facebook ads on Free Basics and represents the only (and very limited) attempt made by the company to discuss the gendered

dimension of the digital divide. Painted within this picture of dearth, Facebook is presented as an altruistic entity rather than a multinational corporation that stands to gain much by staking a claim on the Indian market. The ad also attempts to convince readers that Free Basics is the first step towards digital equality – a disingenuous move which suggests that there have been no prior attempts at digital equality in India and that Facebook's initiative is an appropriate first response, in a series of responses to digital inequality in India.

These technoutopian promises about the affordances of technology, particularly the claims about equality, opportunities, and rights, predate the digital era and are at least as old as the British colonization of India. From a postcolonial perspective, Facebook's intervention in India is reflective of a colonial pattern, of Western attempts to bring technologies into India to supposedly help the sub-continent "develop." Inevitably, this development happens on the terms of a Western agent, and involves a profit-making scheme for this agent. (The railway and the telegraph system I discussed earlier are both classic examples of this scheme.) This rhetoric of development is premised on the understanding that colonized people were pre-modern, primitive, lacking in technology and technological know-how, and it was the responsibility of the colonial empires to advance their barbarian subjects. Rudyard Kipling, the English writer who lived extensively in India, called this the "white man's burden."[13] Facebook's Free Basics falls into this same paradigm of thinking when it posits that access to technology will solve the political, cultural, and economic problems that vex the Global South.

This technoutopianism rests at the very core of Western modernity, and its recurrence as a colonial and neocolonial motif is unsurprising. Brian Larkin notes that it is "difficult to disentangle infrastructures from [such] evolutionary ways of thinking" because infrastructural development has its roots in Enlightenment thought and an idea of a world grounded in circulation and progress (322). Of course, these ideas about circulation and progress are problematized when transposed against colonization and the transatlantic slave trade. The connectedness and ease of circulation brought about by infrastructural development, and the purpose of infrastructural development, also enabled the transatlantic slave trade. The logic of circulation might enable the circulation of ideas (or data, more contemporaneously), but it also references the extraction of resources from colonized places and the introduction of finished products imported from England to the colonies. As a project of Western modernity, infrastructure building is tied to technoutopian fantasies and colonial ideologies, and it must be detangled from these conceptions.

Facebook's Free Basics campaign was eventually unsuccessful. While the colonialist undertones of the campaign certainly played a role, the campaign met its demise in a policy violation. The initiative had been persistently called out for violating net neutrality; given the limited access to the Internet it allowed users. Moreover, Facebook retained substantial control over which services would be offered at all, as content service providers had to follow developer rules outlined by Facebook. In February 2016, TRAI (The Telecomm Regulatory Authority of India) finally banned the service in India on the grounds that it violated principles

of net neutrality. The ban came on the heels of a massive uproar, particularly in Indian cities, about Facebook's perceived highhandedness in running the campaign. Many Indian Facebook users felt imposed upon when Facebook added a link to their Facebook profiles and encouraged them to send an automated email to TRAI on behalf of Free Basics. By pushing users so blatantly to make a decision that supported itself, Facebook inadvertently uncovered the ideological underpinnings of its own platform.

Moreover, Facebook's decision to attack Indian net neutrality activists who had been protesting Free Basics was not well received. In one op-ed piece penned by Mark Zuckerberg in *The Times of India*, he decried net neutrality activists who he accused of peddling "fiction" and false claims about Free Basics (Zuckerberg).[14] The op-ed again conjures an image of technological backwardness, offering up the example of a "farmer in Maharashtra called Ganesh" who used Free Basics to "prepare for [the] monsoon season" and eventually started "investing in new crops and livestock" (Zuckerberg). Zuckerberg then asks, "How does Ganesh being able to better tend his crops hurt the Internet?" The success story allows Zuckerberg to misdirect attention away from Facebook's ethics, because the ensuing pathos laden rhetorical question only has one moral answer in the limited terms of discourse set by Zuckerberg. That there might be other models for providing Internet access and building digital infrastructures in India, and in the Global South, goes unacknowledged. At least, unacknowledged by Facebook, but not so by Indian net neutrality activists who adeptly challenged these assertions. As Nikhil Pahwa asked in a competing op-ed, "why hasn't Facebook chosen options that do not violate Net Neutrality?" (Pahwa). Pahwa's question reframes the conversation by bringing up the possibility of an "open, plural, and diverse web" and refocuses the attention on Facebook and its responsibilities in India. Facebook's attacks on Indian net neutrality activists roused anger particularly because Facebook had spoken strongly in favor of net neutrality in the United States. There was a perception of a double standard: that Facebook was attempting to exploit lax digital laws in the Global South in a way that it was prevented from doing in the West.

The TRAI ban was not entirely surprising, given this furor, and it sent out a strong message that we not accept the self-serving benevolence of neocolonial tech corporations. While there is certainly a need to develop digital infrastructures in the Global South, this development cannot be entrenched in colonial ideologies which are ultimately harmful to peoples affected by colonial projects. Yet, the outcomes of this particular episode were not entirely satisfactory: although this was a setback to Facebook (which has never since revived Free Basics in India), the initiative did expand to many neighbouring countries and other parts of the world. Facebook, moreover, is not alone in its ambitious desire to shape infrastructural development around the world. Google, the other Internet empire, has its own such projects, and one of them, Project Loon, was recently approved for testing in India. Such technocratic successes and experiments point to the need for constant vigilance, and for the need too, of imaginative decolonial projects that can envision critical and liberatory forms of digital infrastructures. The Global South cannot be

a haphazard laboratory for IT companies in the West to test out temporary schemes for providing Internet access. Such temporary, stop-gap, or limited schemes cannot ultimately benefit the people they purport to serve.

In closing, I would like to offer three recommendations for (digital) infrastructural projects in the Global South:

First, we must move away from the idea of digital infrastructures as apolitical systems, and as systems which offer inherent benefits like equality and progress. As my early example of the railways in Kansas and in India indicates, infrastructures can perpetuate colonial violence against marginalized people, and actively work against the political, economic, and social interests of marginalized people. Given this colonial history, we must ask who defines the terms on which the so-called Third World is being developed, and what ideologies are inherent to the infrastructures and technologies developed by IT companies in the First World. I am not recommending here that the Global South turn away entirely from foreign investment in digital infrastructure. Rather, we must continue to hold technology companies (both native and foreign) accountable, particularly for technological solutions to social inequalities. As Philip and colleagues remind us about postcolonial computing, we cannot "escape from the political nature of technocultural practice. . . [and hence, find] located, always ambivalent engagements" instead (15). Instead of reifying native technologies and infrastructures, we can consider approaches that generate "reflective and provocative engagements and more questions" (15).

Second, we need to articulate richer definitions of Internet access to ground our conversations on the digital divide and digital infrastructures. In particular, defining Internet access as a yes/no binary limits the technosocial imaginary and fosters technoutopian fantasies about digital technologies solving the problems that vex the Global South (*if only* people could access the Internet). Instead, Adam Banks advises that we move towards different kinds of "access', including experiential, critical and transformative access. Framing technology as a site of struggle for marginalized people, Banks asks how digital technologies can be constructed with marginalized people as collaborators, consultants, and partners rather than simply as end-users (42). Technologies and infrastructures must be relevant to people on the ground, and attentive to local conditions. While Banks's work is developed in the context of Black technology practices in the US, this context again illustrates the possibility of transnational alliances on digital technologies and infrastructures among marginalized people in the Global North and Global South.

Third, despite my critical take on Facebook's interventions in India, I don't recommend a techno-pessimistic outlook towards infrastructural development. As Ruja Benjamin puts it, "we need to recruit androids into our struggle" so that we are not situating technology in opposition to human and postcolonial life (Benjamin keynote address). Digital solutions will not resolve social inequalities, but they can be powerfully leveraged by marginalized people in their own lives, and in movements for social and racial justice. In terms of infrastructural development, we can take up Alan Liu's call to "pragmatically [guide], the agencies and factors in [infrastructural] making and remaking" (Alan Liu, Drafts for Against the Cultural

Singularity 2016). Framing digital infrastructures as a sociotechnical endeavour creates space for humanists to intervene in and shape conversations and projects pertaining to infrastructure development. While this particular chapter has been primarily invested in postcolonial critique, we must also imagine and articulate new conceptions of postcolonial design, code, technologies, and infrastructures.

Notes

1 Richard White observes that Congress was so sold on the transcontinental railroad projects that it authorized a "profusion of stocks, bonds, and other favors, that between 1862 and 1872 railroads received grants the size of small and medium states" (White).
2 In a minute on the railway issued by Lord Dalhousie in 1853, he writes that a "single glance cast upon the map recalling to mind the vast extent of the Empire we hold . . . will suffice to show how immeasurable are the political advantages to be derived from a system of internal communication" (Railways India). Dalhousie's minute goes on to spell out the military advantages (especially speedy movement of troops within the sub-continent and the dissemination of intelligence reports), political, and economic advantages.
3 Submarine cables are undersea fibre-optic cables used for telecommunication purposes. The use of satellites in the global Internet network remains minimal, and the submarine cables essentially reflect the predominant material infrastructure of the Internet today.
4 See Ragnedda and Muschert's discussion of the digital divide. They explain that the concept is "typically measured via access to the Internet (versus non-access), number of sites at which the Internet is accessed, users' skill at using the Internet, amount of time spent online, and the variety of activities carried out digitally" (2). Their work calls for attending to the " nuances to the digital divide, [the] ones which add finer gradients to the discussion" beyond binary classifications of access/no access (2).
5 Patrik Svensson has also written extensively on digital infrastructures in the context of the digital humanities. In one of his articles, he traces a three-layered model for developing humanities infrastructures which incorporates conceptual infrastructures (the epistemic undergirding), design principles, and actual (material) infrastructures (Svensson).
6 In a presentation at the Symposium on "Collaborative Regulation for Digital Societies," TRAI offered the following definition of digital infrastructure: A " collection of technological and human components, networks, systems and processes that contribute to the functioning of an information system" (TRAI, drawing on Braa et al., Tilson et al.). http://trai.gov.in/sites/default/files/presentations_&_cv/Day-3_25Aug2017/Session2_Digital%20world/Digital%20Infra_Rajesh%20Sharma.pdf.
7 Alexa has consistently ranked it in the top five of most visited sites in India.
8 Risam and Koh are writing, as I am too, in an older research arc that spans science and technology studies. Kavita Philip and colleagues, for example, defined a field of inquiry called "Postcolonial Computing," which "proposes a rubric under which to examine this new global configuration of technology, cultural practices, economic relations, and narratives of development" (21).
9 Facebook was reported to be talks to bring Free Basics to underserved communities in the US in 2016, but nothing concrete has materialized out of these talks.
10 Bahri offers the following criteria that define Free Basics as a colonialist project: "1. Ride in like the savior, 2. Bandy about words like equality, democracy, basic rights, 3. Mask the long-term profit motive, 4. Justify the logic of partial dissemination as better than nothing, 5. Partner with local elites and vested interests, 6. Accuse the critics of ingratitude" (Lafrance).
11 Another Silicon Valley figure who visited the temple explained its draw by saying that "everybody in the world wants to go and see this place. . . . It's a combination of 'Eat Pray Love,' know thyself and change the world" (Gowan).

12 At the same time, however, there was great interest among the colonial scholars of the Orient in the rationalist project of "dispelling mystery and institutionalizing even the most recondite knowledge" in order to open up the Orient for "European scrutiny" (Said 83).
13 In an imperialist poem of the same name, which responds to the American colonization of the Philippines.
14 One sample statement from the op-ed is as follows: "Instead of wanting to give people access to some basic Internet services for free, critics of the program continue to spread false claims – even if it means leaving a billion people behind" (Zuckerberg).

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Disability Hacktivism

Disability activists take note: The hackathon is the new telethon.

Revulsion is not a traditionally favored rhetorical pastime. But if disability historians were to agree on anything, it would likely involve the word *reviled* modifying the word *telethon*. The disability telethon signals some of the most damaging of disability myths and figures. Enter the poster child, pitiable and helpless. Enter the celebrity spokesperson, saving the day. Enter cost-burden analyses. Enter pithy quips about the meaning of life and humanity (of which disability and disabled people do not take part). Enter the sad music. Enter the cure, the elusive cure, please fund the cure. Did we mention the cure?

Perhaps the most iconic of disability telethons is the MDA Labor Day Telethon, led by Jerry Lewis for 45 years, and no stranger to controversy (Zoglin 2012, n.p.). In advance of the 1990 telethon, Lewis infamously referred to wheelchair users as "half-persons" in a spread for *Parade* magazine. The following year, disability activists—many of them former MDA poster children, or Jerry's Kids—orchestrated a series of protest actions under the banner of Jerry's Orphans. Over a span of two decades, the protests received widespread local and national media coverage. Mike Ervin, Laura Hershey, Harriet McBryde-Johnson, and numerous other disability activists outlined the exclusionary practices in which Lewis and the MDA routinely engaged: from plainly stating that disabled lives were lives not worth living, to preventing disabled volunteers from working at disability summer camps (Johnson 2005), to focusing on the elusive "cure" at the expense of the needs, desires, and full participation of the people they claimed to serve.

Year after year, Lewis refused to back down, instead representing activists as bitter, greedy, and ungrateful. In an interview with ABC, Lewis heralded himself a hero, claiming that his celebrity appeal gave children with MD the will to live. When pressed about Jerry's Orphans and his half-person commentary in *Parade*, Lewis responded, "They can't run with me down the hall, can they? In truth, aren't they given half?" And, in 2005, when an Orphans protest erupted at a promotional event, Lewis purportedly exclaimed, in anger, "These people are going to walk out of those chairs and walk home tonight. I bought those chairs for them."

The MDA is not the first, nor the last, of problemed disability charities. Nor is the MDA my main focus here. But its story remains iconic because the rhetoric of the telethon is a rhetoric of charity and exclusion and infantilization. The rhetoric of the telethon denies the humanity and agency of disabled people, all the while reifying the prowess and kindliness of the presumably able-bodied.

This rhetoric, I argue, pervades contemporary discourses around hacking. We encounter charity-driven ideologies with the hackathon, which is in many respects a sexed-up version of the telethon. But we also run the risk of reinforcing such ideologies within our conceptions of hacking itself, especially where hacking-as-supposedly-activist-practice meets disability. In the paragraphs and images that follow, I maintain that hacking often signifies a telethon-esque logic. When hacktivism meets disability, we assume the logics of the fix, the cure, and the kind-hearted helper. Disability hacktivism, I fear, has become a shinier and hipper way of signaling the impoverished lives of the so-called cripples and feeble-minded. But, as I'll also suggest, these rhetorical frames are not self-defeating: As crip activists and allies, we have the power to cultivate hacking into a disability-positive practice, one that takes participatory design as its charge.

Enter the Hackathon

Hackathons = the hipster version of telethons. For the benefit of those who do not self-identify as hipsters or hackers (or hiphacksters?), hackathons usually take form as hours- or dayslong computing events in which large numbers of volunteers seek to build products (virtual or physical) for a particular community. When disability or illness enters the fold, hackathons might result in blood-sugar management apps, or videogames that model how to interact with healthcare professionals, or vehicles that enable broader access for wheelchair users.

My argument here, then, is not that hackathons never produce anything "good": rather, my argument is that disability hacktivism often excludes disabled people and considers disability as pitiable and in need of remediation. What follows are two such stories.

Story one. In February 2013, Hacking Health in Vancouver hosted a cross-disability hackathon that yielded a project called Auti-Sim, an autism simulation game developed by non-autistic people. The program was designed to emulate the sensory experiences of autism, which one reviewer described as a "playground nightmare" that was "a very short experience. But then, so is having a railroad spike driven into your ear" (Grayson 2013, n.p.). Tellingly, no autistic people were consulted in the design of Auti-Sim, which aimed to demonstrate the "horror" of the autistic sensorium (Grayson). When confronted with negative feedback from autistic people, lead designer Taylan Kay responded, "You can still learn something about your own condition, even if you have other experiences. It doesn't mean you know everything about autism just because you have it. . . . It's more of a statement on how bad it can be rather than how it is for everyone" (Orland 2013, n.p.).

Story two. In March 2013, the Bing Fund held an autism hackathon in Seattle. Notably, none of the organizers or participants identified as autistic. Promotional materials for the event flaunted loaded language, variously referring to autism as a disease and an affliction. When autistic bloggers contacted the organizers—angered, hurt, and concerned—they were ignored. The hacking went on as planned, all about autism but without autistic people.

What these two stories share is a common theme—the collective dismissal of disabled people. In flagrantly arrogant constructions, these non-autistic designers claimed to know more about the embodied experience of autism than autistic people. In fact, their impulse was to claim that autistic people's knowledge about autism is inherently self-focused and idiosyncratic. If you're autistic, they implied, then you're only capable of making statements about yourself (and maybe not even that).

What to say about these technological impulses—impulses that assume disability is badness and horror, impulses that assume non-disabled people and technology are disability saviors? What to say about those who assume that disability represents the baddest of the bads?

My own position as a disabled activist has led me to engage with hacking under a troubled framework, through a complex (and vexed) set of histories. And, the gist of my argument is that we (as techno-rhetoricians, advocates, and citizens) not only need to be aware of these histories; we also need to work in service of disrupting hacking hierarchies and instead privilege the voices and desires of disabled people.

Hacking Bodies, Or: Passing, Fixing, and Retrofitting

In popular discourse on disability, hacking often resembles one of the following motifs:

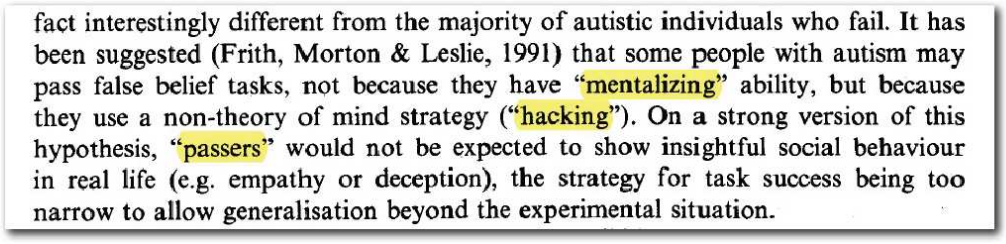
- Hacking as passing.
- Hacking as fixing.
- Hacking as retrofitting.

These ideas about hacking share a focus on the **normalization** of bodies. That is, they emphasize fixing, curing, and rehabilitating people, all in the name of normalcy.

Hacking-as-**passing** represents an attempt to appear non-disabled, an effort to avoid stigma and marginalization (Linton 1998). Passing as a term has a long history in marginalized communities, and originates beyond disability to conversations of race and sexuality. In short, passing means attempting to

be that which you are not (Siebers 2008).

Of course, when we're talking about medical discourse, disability represents something bad. It is pathological. It is something in need of remedy or cure. It shouldn't come as any surprise, then, that many disability service professionals generally think of passing as a *positive*, as a stepping stone toward an idealized bodymind or "indistinguishability from one's peers" (Alyric 2009). Passing is pervasive in clinical contexts. It's what professionals want (and expect) from their clients.



fact interestingly different from the majority of autistic individuals who fail. It has been suggested (Frith, Morton & Leslie, 1991) that some people with autism may pass false belief tasks, not because they have "mentalizing" ability, but because they use a non-theory of mind strategy ("hacking"). On a strong version of this hypothesis, "passers" would not be expected to show insightful social behaviour in real life (e.g. empathy or deception), the strategy for task success being too narrow to allow generalisation beyond the experimental situation.

Page from a journal article on autism and hacking. The words hacking, mentalizing, and passers are highlighted in yellow to signify their relation to one another.

The above image is but one example of hacking-as-passing. It's from a 1994 article in the journal, *Social Development*. In it, the authors describe how some autistic people can hack social cues and pretend to understand other people's intentions. The key take-aways from this and similar representations are these: 1) disabled people should do their best to feign normalcy, and 2) disabled people, despite normative appearances, generally "fake" core attributes of their humanity (e.g., socialization, communication, or mobility).

What I'd like to direct our attention to now are hacking as fixing and hacking as retrofitting—because, like passing, both are rehabilitative in nature; both assume disabled people as passives and able-bodied people as savior-agents; both involve tinkering toward normalization. What separates them is this: fixing involves **bodyminds**, and retrofitting involves **spaces**.

Screen shot of the Hacking Autism website. The banner includes the image of a bird freeing itself from a cage. The body of the site includes a banner labeled Hackathon, which is figured beneath the image of a hammer and wrench. To the right is a site headline titled "Help us hack autism: Hacking Autism is using technology to give people with autism a voice."

Here, then, is an example of hacking as **fixing**. The above image shows a screen shot of the former Hacking Autism website, a collaboration between Autism Speaks and Hewlett Packard. Hacking Autism develops freeware apps that encourage social communication and discourage "problematic behaviors." The site exudes the message that autistic people are enigmas in need of techno-enhancing. Even the site's logo [that of a bird breaking free from a cage] rehashes the decades-old stereotype that autistic people are imprisoned in their bodies. The message throughout the site is clear: Autistic people need to be hacked. They are puzzles to solve, bodies to cure.

Like hacking-as-fixing, **retrofitting** also assumes an able-bodied default. And, when disability enters the mix, the idea goes, we need simply to add onto already-existing designs—this, rather than reinventing our social and material spaces (Dolmage 2008). Retrofitting is an additive, not re-imaginative, ideology. Rather than considering disability from the beginning of the design process, retrofitting instead tacks on hacks and fixes as an afterthought. In many respects, I would characterize retrofitting as an "oh shit! we forgot about you!" ideology.

Photo of a maze-like wheelchair ramp, a clear retrofit to an older building. Not only does the ramp have many twists, turns, and inclines; it is also blocked by a bicycle, which is chained to the railing.

The above image is a typical example of a retrofit. In it, a wheelchair ramp has been added onto a building. Clearly, this ramp is an afterthought, not something that was conceived at the inception of the building's design. And typically, retrofitting means that if disabled people are involved in design, it is only at the very end of the process (if that).

And so, hacking suggests that retrofitting is a matter of tinkering with people and places until they fit "just right." Paul Collins (2008) captures this sentiment well, I think, with the following line: "the problem with pounding a square peg into a round hole is not that the hammering is hard work. It's that you're destroying the peg."

Toward Criptastic Hacking

Even though disability hacktivism often takes form as something bodies- and pathology-focused as opposed to systems-focused, disability studies has long, productive histories of reclaiming language and contorting normative ideologies (Kuppers 2011). What we need, then, is a *criptastic* reclamation of hacking. A criptastic version of hacking is one that rails against forced normalization, one that moves from body-tweaking to something collective, activist, and systemic. I am asking us to imagine the possibilities if hacking were a disability-led movement, rather than a series of apps and patches and fixes designed by non-disabled people who cannot even be bothered to talk with disabled people.

Within this webtext collection, my co-authors have offered models and theories of hacking that subvert, dismantle, question, and reinvent many of our archly held notions about what hacking is and what social justice is and what it means to be human. When activists make claims about "hacking," they're suggesting we engage in activist work that goes against some kind of institutional grain. There is resistance and tinkering involved in any act of hacking. Hackers are *makers* (and sometimes *breakers*). As Elizabeth Losh (2012) describes it, hacking involves "the nonviolent use of digital tools in pursuit of political ends" (n.p.). Under such a framework, hacking might look like a class discussion in which everyone uses mobile phones or tablets to disrupt traditional modes of instruction. Or, hacking might involve rearranging furniture so that everyone can have the maximum amount of space to flap their hands and roll their bodies. Each of these acts—using iPads, pushing away desks—invokes a certain kind of politics, a politics that, for instance, values diverse styles of communication or ways of moving.

Why, then, have we traded in the disability activist for the disability poster child? What is it about disability that tends to make hacking so, well, special?

What if we were to think of disability hacktivism in a non-special sort of way? Instead of seeing it as something that is static, additive, or clinical, what if we viewed disability hacktivism as participatory and messy and dynamic? Jay Dolmage has often described access as a way to move. If access is *a way to move*—if *hacking* is a way to move—then, suddenly, we're not focused on software and products and techno-cures. Rather, we are focused on process. We are focused on not only disabled bodies, but disabled spaces, and how bodies and spaces move and interact with each other. We are focused on work that never ends, because access isn't an end goal. Access is a verb. Access is what we *do*, not what we are or where we arrive when the telethon ends.

Criptastic hacking, or hacking-as-moving, is disabled-led. By this I mean the following: Disability hacktivism is only ethical if it is led by people with disabilities. We are the movers, not the moved-upon. We are the ones who should be hacking spaces and oppressive social systems; we should *not* have our bodies and our brains hacked upon by non-disabled people.

The above doesn't mean that there isn't room for non-disabled people, or that non-disabled people are somehow exempt or prevented from doing the work of disability rights. What this *does* require, however, is a reorientation. It involves setting aside our most emetically cherished of disability tropes—heroism, pity, charity—or the celeb-righteous anger of buying chairs and ramps for "ungrateful half-persons."

In sum, bodies are not for hacking. Bigotry is.

FEMINIST DATA MANIFEST-NO

The Manifest-No is a declaration of refusal and commitment. It refuses harmful data regimes and commits to new data futures.

1. **We refuse** to operate under the assumption that risk and harm associated with data practices can be bounded to mean the same thing for everyone, everywhere, at every time. **We commit** to acknowledging how historical and systemic patterns of violence and exploitation produce differential vulnerabilities for communities.

2. **We refuse** to be disciplined by data, devices, and practices that seek to shape and normalize racialized, gendered, and differently-abled bodies in ways that make us available to be tracked, monitored, and surveilled. **We commit** to taking back control over the ways we behave, live, and engage with data and its technologies.

3. **We refuse** the use of data about people in perpetuity. **We commit** to embracing agency and working with intentionality, preparing bodies or corpuses of data to be laid to rest when they are not being used in service to the people about whom they were created.

4. **We refuse** to understand data as disembodied and thereby dehumanized and departicularized. **We commit** to understanding data as always and variously attached to bodies; we vow to interrogate the biopolitical implications of data with a keen eye to gender, race, sexuality, class, disability, nationality, and other forms of embodied difference.

5. **We refuse** any code of phony "ethics" and false proclamations of transparency that are wielded as cover, as tools of power, as forms for escape that let the people who create systems off the hook from accountability or responsibility. **We commit** to a feminist data ethics that explicitly seeks equity and demands justice by helping us understand and shift how power works.

6. **We refuse** the expansion of forms of data science that normalizes a condition of data extractivism and is defined primarily by the drive to monetize and hyper-individualize the human experience. **We commit** to centering creative and collective forms of life, living, and worldmaking that exceed the neoliberal logics and resist the market-driven forces to commodify human experience.

7. **We refuse** to accept that data and the systems that generate, collect, process, and store it are too complex or too technical to be understood by the people whose lives are implicated in them. **We commit** to seek to make systems and data intelligible, tangible, and controllable.

8. **We refuse** work *about* minoritized people. **We commit** to mobilizing data so that we are working with and for minoritized people in ways that are consensual, reciprocal, and that understand data as always co-constituted.

9. **We refuse** a data regime of ultimatums, coercive permissions, pervasive cookie collecting, and blocked access. Not everyone can safely refuse or opt out without consequence or further harm. **We commit** to "no" being a real

option in all online interactions with data-driven products and platforms and to enacting a new type of data regime that knits the “no” into its fabric.

10. **We refuse** to “close the door behind” ourselves. **We commit** to entering ethically compromised spaces like the academy and industry not to imbricate ourselves into the hierarchies of power but to subvert, undermine, open, make possible.

11. **We refuse** a data culture that reproduces the colonial ‘ruse of consent’ “which papers over the very conditions of force and violence that beget ‘consent’” in the first place. **We commit** to data practices developed by and for Indigenous peoples and in relations of reciprocity.

12. **We refuse** more dispossession, erasure, stealing, and profiting from Black, Indigenious, and people of colors’ lives and works. **We commit** to build the standpoint that the people most screwed over by data have the best understanding of data and to lifting up, mobilizing, and celebrating their knowledges in building a data methodology of the oppressed .

13. **We refuse** to reproduce research as a form of exploitation and to allow people in positions of privilege make the decisions on behalf of those without. **We commit** to research cultures that promote data autonomy and SELF-representation.

14. **We refuse** to cede rhetorics of revolution, disruption, and creative innovation to Silicon Valley marketing and venture discourse. Especially, when this discourse marginalizes and appropriates the voices and actions of social justice communities. **We commit** to a recognition and an amplification of the long histories of the labor, dedication, and power of feminist voices for social transformation.

15. **We refuse** systems that simplify consent into a one-time action, a simple click of a yes to a terms of service agreement, to ownership of our data in perpetuity. **We commit** to enacting Planned Parenthood’s FRIES model of consent that ensures that it is always “Freely given, Reversible, Informed, Enthusiastic and Specific.”

16. **We refuse** surveillance as the only condition for participation and to feel powerless in the face of “inevitable” mass technological surveillance. **We commit** to find our communities, hold them close, and resist together.

17. **We refuse** Big Tech’s half-measures and moral compromises that constantly defer the needs of vulnerable users as something to be addressed in the next round (of funding, of testing, of patching). **We commit** to centering the needs of the most vulnerable among us in making way for a radical address to Big Tech’s data problems.

18. **We refuse** technologies that defer or delay accessible design because it is too expensive, inconvenient, or not legally required. **We commit** to learning from the work of disability activists. #NothingAboutUsWithoutUs

19. **We refuse** the naturalization of data as what is simply ‘off gassed’ by a thing, object, or interaction. **We commit** to treating data as a resource to be cared for and cultivated, beyond a colonial extraction logic (as something to be constantly mined, extracted, captured).

20. **We refuse** to consider data as raw and only an end product without context and values and to ignore that data has an origin story, and a creator or creators whose legacy must be understood in order to understand the data itself. **We commit** to working with data subjects rather than capturing data objects by centering the matrices of oppression that shaped data’s production and the infrastructure--the code, algorithms, applications, and operating systems--in which it is used, processed, and stored. Data always has social values including race, gender, class and ability inscribed into it.

21. **We refuse** to cede that convincing unjust institutions and disciplines to listen to us is the only way to make change. **We commit** to co-constructing our language and questions together with the communities we serve in order to build power with our own.

22. **We refuse** 'damage centered' research that gathers data to reproduce damage, and that traffics in or profits from pain. **We commit** to 'desire centered' research that mobilizes and centers data by and for Indigenous, Black, poor, uncitizened, transgender, disabled and other minoritized, over-researched and under-served people as resource and tool for their thriving, survivance, and joy .

23. **We refuse** to tolerate economies of convenience (also known as the 'gig economy' or 'sharing economy') that build capital and data empires on the backs of precarious workers and hidden labor. **We commit** to working against the exploitation of labor and precarity in all of its forms.

24. **We refuse** tech solutionism as a moral cover for punitive data logics like always-on facial recognition systems, default capture of personal data, and racist predictive policing. **We commit** to feminist problem-solving that interrogates data logics as mirrors of power inequalities rather than simple solutions to legacies of racism, sexism, ableism, and oppression of vulnerable people.

25. **We refuse** data logics of prediction that presume omnipotence and conceit to know better than community-centered forms of decision making. **We commit** to countering the risks of defaulting to data-driven forms of prediction and decision-making by valuing the expertise of community-engaged practitioners.

26. **We refuse** to accept that data only matters when it is big, abstract, digital, aggregated, machine-readable, and instrumentalized for the market. **We commit** to valuing other forms and materialities of data that privilege accountability and legibility to users and community, and examine data at and across all of its scales.

27. **We refuse** the appropriation of feminist discourses of collective safety and the language of consent for the legitimization of surveillance. Safety does not demand subjection to, submission to, subordination to rational, high tech, colonial orders . **We commit** to feminist collective safety and consent as a means of building resilience, creating solidarity, reducing harm, and as a tool of self-defense and empowerment.

28. **We refuse** the argument that feminist data reform is too slow, too expensive, too much, too little, too late. **We commit** to radical disruption for social transformation.

29. **We refuse** data logics that hyper-value the quantitative, the "objective," and the "generalizable." **We commit** to developing, adopting, and advancing methodologies that draw insight from the subjective, embodied, contingent, political, and affective in ways that transcend traditional boundaries between qualitative and quantitative.

30. We refuse coercive settler colonial logics of knowledge and information organization; we commit to tribal nation sovereignties and Indigenous information management that values Indigenous relationality , the right to know , and data sovereignty .

31. We refuse settler colonial logics of data ownership; we commit to advancing the sovereignty of Indigenous peoples who harness data practices as "infrastructural commitments" to get back their land and divest foreign occupying powers .

32. **We refuse** reductionist practices that view people as data points in order to embrace the whole person. **We commit** to the requirement of recognizing personhood as a feminist data value.

Our refusals and commitments together demand that data be acknowledged as at once an interpretation and in need of interpretation. Data can be a check-in, a story, an experience or set of experiences, and a resource to begin and continue dialogue. It can - and should always - resist reduction. Data is a thing, a process, and a relationship we make and put to use. *We can make it and use it differently.*

Raymond Williams

Keywords

A vocabulary
of culture
and society

Revised edition

OXFORD UNIVERSITY PRESS
New York

Note from Pietro Calogero, 26 April 2013

Williams' *Keywords* remains an incredibly useful concept for scholars focusing on politically-contested issues. This softcopy of the Introduction is designed to be used as a reading in a university course. It has been formatted to be printed either 2-up per page (letter or A4) or to be viewed on a small-screen electronic reader.

This file was created through optical character recognition (OCR) from a scan of the 1983 edition of *Keywords*. Page-breaks are identical to the original hardcopy, and most line-breaks are also the same, to facilitate referencing of the text. Spelling and punctuation are unchanged, thus the word "centring" which will surprise American readers.

Profound cultural changes since 1983 have made this critical approach to language even more relevant. Several vital changes can give us points of perspective from which to reflect on Williams' arguments:

1. The rise of the internet, and debates about 'authoritative knowledge' with the disappearance of professional newspaper editors and the rise of both blogs and wiki sites;
2. The adoption of English as a global *second* language, and the spread of the struggle over meanings to whole new cultural-political settings;
3. The active and effective adoption of 'lexical aggression' by conservative think-tanks, lobbyists, and interest-groups, starting in the 1980s with the Heritage Foundation. Conservatives have shown, and openly admitted, that control of the talking-points means control of the political debate.

In his *Autobiography,* Malcolm X describes how he carefully read the dictionary while in prison, to become more effective at debating. This was a revolutionary moment for X, and one that enabled him to exert influence long after his assassination. My first impression of dictionaries was that they were prosaic, everyday things; quintessentially uncontroversial. Malcolm X revealed the radical power one can gain through the methodical study, critical reflection, and strategic deployment of words as acts of speech; as acts of intervention.

Here, Raymond Williams lays out a thoughtful reflection on how he came to understand the distinction between most uncontested words and the politics of knowledge around keywords. His list of keywords is deliberately general—not merely to be 'interdisciplinary' in the academic sense, but to focus on the words that shape public, political debate.

Please notify me regarding any errors that I failed to correct from the OCR.
pietro@calogero.us

Back cover description of the book:

Raymond Williams has been writing about the social and cultural history of England for more than 30 years. His *Culture and Society, 1780-1950,* a brilliant work describing the effect of the dominant words in British literature, established him as one of England's most incisive cultural critics. In *Keywords,* Williams once again focuses on the sociology of language, demonstrating how words that are key to understanding our society take on new meanings and how these changes reflect the political bent and values of society.

Originally conceived of as an appendix to *Culture and Society, Keywords* was expanded to include 155 words and published in book form in 1976. As words constantly evolve and undergo subtle transformation, revisionist o the original text were soon necessary. Therefore, based on his extensive notes on language and meaning, Williams revised *Keywords,* adding 2l new words and rewriting many of the original essays. The additions include words such as "development," "ecology," "generation," and "sex" that have taken on increased importance in our lives; the revisions take into account changes in nuance and the findings of recent linguistic studies. The resulting series of connecting essays offers not only a provocative study of contemporary language but an insightful look at the society in which we live.

Raymond Williams, a Fellow of Jesus College, Cambridge University, is the author of *The Long Revolution*, *The English Novel from Dickens to Lawrence*, and *The Country and the City.*

Keywords included in the 1983 second edition:

Aesthetic
Alienation
Anarchism
Anthropology
Art

Behaviour
Bourgeois
Bureaucracy

Capitalism
Career
Charity
City
Civilization
Class
Collective
Commercialism
Common
Communication
Communism
Community
Consensus
Consumer
Conventional
Country
Creative
Criticism
Culture

Democracy
Determine
Development
Dialect
Dialectic
Doctrinaire
Dramatic

[Note: I have arranged the Keywords in single-column lists so that you can annotate each word, and add a few of your own. --PC]

List of Keywords continued, page 2 of 4

Ecology
Educated
Elite
Empirical
Equality
Ethnic
Evolution
Existential
Experience
Expert
Exploitation

Family
Fiction
Folk
Formalist

Generation
Genetic
Genius

Hegemony
History
Humanity

Idealism
Ideology
Image
Imperialism
Improve
Individual
Industry
Institution
Intellectual
Interest
Isms

Jargon

List of Keywords continued, page 3 of 4

Labour
Liberal
Liberation
Literature

Man
Management
Masses
Materialism
Mechanical
Media
Mediation
Medieval
Modern
Monopoly
Myth

Nationalist
Native
Naturalism
Nature

Ordinary
Organic
Originality

Peasant
Personality
Philosophy
Popular
Positivist
Pragmatic
Private
Progressive
Psychological

Racial
Radical
Rational

List of Keywords continued, page 4 of 4

Reactionary
Realism
Reform
Regional
Representative
Revolution
Romantic

Science
Sensibility
Sex
Socialist
Society
Sociology
Standards
Status
Structural
Subjective

Taste
Technology
Theory
Tradition

Unconsciousness
Underprivileged
Unemployment
Utilitarian

Violence

Wealth
Welfare
Western
Work

Introduction

In 1945, after the ending of the wars with Germany and Japan, I was released from the Army to return to Cambridge. University term had already begun, and many relationships and groups had been formed. It was in any case strange to travel from an artillery regiment on the Kiel Canal to a Cambridge college. I had been away only four and a half years, but in the movements of war had lost touch with all my university friends. Then, after many strange days, I met a man I had worked with in the first year of the war, when the formations of the 1930s, though under pressure, were still active. He too had just come out of the Army. We talked eagerly, but not about the past. We were too much preoccupied with this new and strange world around us. Then we both said, in effect simultaneously: 'the fact is, they just don't speak the same language'.

It is a common phrase. It is often used between successive generations, and even between parents and children. I had used it myself, just six years earlier, when I had come to Cambridge from a working-class family in Wales. In many of the fields in which language is used it is of course not true. Within our common language, in a particular country, we can be conscious of social differences, or of differences of age, but in the main we use the same words for most everyday things and activities, though with obvious variations of rhythm and accent and tone. Some of the variable words, say lunch and supper and dinner, may be highlighted but the differences are not particularly important. When we come to say 'we just don't speak the same language' we mean something more general: that we have different immediate values or different kinds of valuation, or that we are aware, often intangibly, of different formations and distributions of energy and interest. In such a case, each group is speaking its native language, but its uses are significantly different, and especially when strong feelings or important ideas are in question. No single group is 'wrong' by any linguistic criterion, though a temporarily dominant group may try to enforce its own uses as 'correct'. What is really happening through these critical encounters, which may be very conscious or may be felt only as a certain strangeness and unease, is a process quite central in the development of a language when, in

certain words, tones and rhythms, meanings are offered, felt for, tested, confirmed, asserted, qualified, changed. In some situations this is a very slow process indeed; it needs the passage of centuries to show itself actively, by results, at anything like its full weight. In other situations the process can be rapid, especially in certain key areas. In a large and active university, and in a period of change as important as a war, the process can seem unusually rapid and conscious.

Yet it had been, we both said, only four or five years. Could it really have changed that much? Searching for examples we found that some general attitudes in politics and religion had altered, and agreed that these were important changes. But I found myself preoccupied by a single word, culture, which it seemed I was hearing very much more often: not only, obviously, by comparison with the talk of an artillery regiment or of my own family, but by direct comparison within the university over just those few years. I had heard it previously in two senses: one at the fringes, in teashops and places like that, where it seemed the preferred word for a kind of social superiority, not in ideas or learning, and not only in money or position, but in a more intangible area, relating to behaviour; yet also, secondly, among my own friends, where it was an active word for writing poems and novels, making films and paintings, working in theatres. What I was now hearing were two different senses, which I could not really get clear: first, in the study of literature, a use of the word to indicate, powerfully but not explicitly, some central formation of values (and *literature* itself had the same kind of emphasis); secondly, in more general discussion, but with what seemed to me very different implications, a use which made it almost equivalent to *society*: a particular *way of life* – 'American culture', 'Japanese culture'.

Today I can explain what I believe was happening. Two important traditions were finding in England their effective formations: in the study of literature a decisive dominance of an idea of criticism which, from Arnold through Leavis, had *culture* as one of its central terms; and in discussions of society the extension to general conversation of an anthropological sense which had been clear as a specialist term but which now, with increased American influence and with the parallel influence of such thinkers as Mannheim, was becoming naturalized. The two earlier senses had evidently weakened: the

teashop sense, though still active, was more distant and was becoming comic; the sense of activity in the arts, though it held its national place, seemed more and more excluded both by the emphasis of criticism and by the larger and dissolving reference to a whole way of life. But I knew nothing of this at the time. It was just a difficult word, a word I could think of as an example of the change which we were trying, in various ways, to understand.

My year in Cambridge passed. I went off to a job in adult education. Within two years T. S. Eliot published his *Notes Towards the Definition of Culture* (1948) – a book I grasped but could not accept – and all the elusive strangeness of those first weeks back in Cambridge returned with force. I began exploring the word in my adult classes. The words I linked it with, because of the problems its uses raised in my mind, were *class* and *art*, and then *industry* and *democracy*. I could feel these five words as a kind of structure. The relations between them became more complex the more I considered them. I began reading widely, to try to see more clearly what each was about. Then one day in the basement of the Public Library at Seaford, where we had gone to live, I looked up *culture*, almost casually, in one of the thirteen volumes of what we now usually call the OED: the Oxford *New English Dictionary on Historical Principles*. It was like a shock of recognition. The changes of sense I had been trying to understand had begun in English, it seemed, in the early nineteenth century. The connections I had sensed with class and *art*, with *industry* and *democracy*, took on, in the language, not only an intellectual but an historical shape. I see these changes today in much more complex ways. *Culture* itself has now a different though related history. But this was the moment at which an inquiry which had begun in trying to understand several urgent contemporary problems – problems quite literally of understanding my immediate world – achieved a particular shape in trying to understand a tradition. This was the work which, completed in 1956, became my book *Culture and Society*.

It was not easy then, and it is not much easier now, to describe this work in terms of a particular academic subject. The book has been classified under headings as various as cultural history, historical semantics, history of ideas, social criticism, literary history and sociology. This may at times be embarrassing or even difficult, but

academic subjects are not eternal categories, and the fact is that, wishing to put certain general questions in certain specific ways, I found that the connections I was making, and the area of concern which I was attempting to describe, were in practice experienced and shared by many other people, to whom the particular study spoke. One central feature of this area of interest was its vocabulary, which is significantly not the specialized vocabulary of a specialized discipline, though it often overlaps with several of these, but a general vocabulary ranging from strong, difficult and persuasive words in everyday usage to words which, beginning in particular specialized contexts, have become quite common in descriptions of wider areas of thought and experience. This, significantly, is the vocabulary we share with others, often imperfectly, when we wish to discuss many of the central processes of our common life. *Culture*, the original difficult word, is an exact example. It has specialized meanings in particular fields of study, and it might seem an appropriate task simply to sort these out. But it was the significance of its general and variable usage that had first attracted my attention: not in separated disciplines but in general discussion. The very fact that it was important in two areas that are often thought of as separate – *art* and *society* – posed new questions and suggested new kinds of connection. As I went on I found that this seemed to be true of a significant range of words – from *aesthetic* to *work* – and I began collecting them and trying to understand them. The significance, it can be said, is in the selection. I realize how arbitrary some inclusions and exclusions may seem to others. But out of some two hundred words, which I chose because I saw or heard them being used in quite general discussion in what seemed to me interesting or difficult ways, I then selected sixty and wrote notes and short essays on them, intending them as an appendix to *Culture and Society*, which in its main text was dealing with a number of specific writers and thinkers. But when that book was finished my publisher told me it had to be shortened: one of the items that could be taken out was this appendix. I had little effective choice. I agreed, reluctantly. I put in a note promising this material as a separate paper. But the file of the appendix stayed on my shelf. For over twenty years I have been adding to it: collecting more examples, finding new points of analysis, including other words. I began to feel that this might make a book on its own. I went through the whole file again, rewrote all the notes and

short. essays, excluded some words and again added others. The present volume is the result.

I have emphasized this process of the development of *Keywords* because it seems to me to indicate its dimension and purpose. It is not a dictionary or glossary of a particular academic subject. It is not a series of footnotes to dictionary histories or definitions of a number of words. It is, rather, the record of an inquiry into a *vocabulary*: a shared body of words and meanings in our most general discussions, in English, of the practices and institutions which we group as *culture* and *society*. Every word which I have included has at some time, in the course of some argument, virtually forced itself on my attention because the problems of its meanings seemed to me inextricably bound up with the problems it was being used to discuss. I have often got up from writing a particular note and heard the same word again, with the same sense of significance and difficulty: often, of course, in discussions and arguments which were rushing by to some other destination. I began to see this experience as a problem of *vocabulary*, in two senses: the available and developing meanings of known words, which needed to be set down; and the explicit but as often implicit connections which people were making, in what seemed to me, again and again, particular formations of meaning – ways not only of discussing but at another level of seeing many of our central experiences. What I had then to do was not only to collect examples, and look up or revise particular records of use, but to analyse, as far as I could, some of the issues and problems that were there inside the vocabulary, whether in single words or in habitual groupings. I called these words *Keywords* in two connected senses: they are significant, binding words in certain activities and their interpretation; they are significant, indicative words in certain forms of thought. Certain uses bound together certain ways of seeing culture and society, not least in these two most general words. Certain other uses seemed to me to open up issues and problems, in the same general area, of which we all needed to be very much more conscious. Notes on a list of words; analyses of certain formations: these were the elements of an active vocabulary – a way of recording, investigating and presenting problems of meaning in the area in which the meanings of *culture* and *society* have formed.

Of course the issues could not all be understood simply by analysis

of the words. On the contrary, most of the social and intellectual issues, including both gradual developments and the most explicit controversies and conflicts, persisted within and beyond the linguistic analysis. Yet many of these issues, I found, could not really be thought through, and some of them, I believe, cannot even be focused unless we are conscious of the words as elements of the problems. This point of view is now much more widely accepted. When I raised my first questions about the differing uses of culture I was given the impression, in kindly and not so kind ways, that these arose mainly from the fact of an incomplete education, and the fact that this was true (in real terms it is true of everyone) only clouded the real point at issue. The surpassing confidence of any particular use of a word, within a group or within a period, is very difficult to question. I recall an eighteenth-century letter:

> What, in your opinion, is the meaning of the word *sentimental*, so much in vogue among the polite . . . ? Everything clever and agreeable is comprehended in that word . . . I am frequently astonished to hear such a one is a *sentimental* man; we were a *sentimental* party; I have been taking a *sentimental* walk.

Well, that vogue passed. The meaning of *sentimental* changed and deteriorated. Nobody now asking the meaning of the word would be met by that familiar, slightly frozen, polite stare. When a particular history is completed, we can all be clear and relaxed about it. But *literature*, *aesthetic*, *representative*, *empirical*, *unconscious*, *liberal*: these and many other words which seem to me to raise problems will, in the right circles, seem mere transparencies, their correct use a matter only of education. Or *class*, *democracy*, *equality*, *evolution*, *materialism*: these we know we must argue about, but we can assign particular uses to sects, and call all sects but our awn *sectarian*. Language depends, it can be said, on this kind of confidence, but in any major language, and especially in periods of change, a necessary confidence and concern for clarity can quickly become brittle, if the questions involved are not faced.

The questions are not only about meaning; in most cases, inevitably, they are about meanings. Some people, when they see a word, think the first thing to do is to define it. Dictionaries are produced and, with a show of authority no less confident because it is

usually so limited in place and time, what is called a proper meaning is attached. I once began collecting, from correspondence in newspapers, and from other public arguments, variations on the phrases 'I see from my Webster' and 'I find from my Oxford Dictionary'. Usually what was at issue was a difficult term in an argument. But the effective tone of these phrases, with their interesting overtone of possession ('my Webster'), was to appropriate a meaning which fitted the argument and to exclude those meanings which were inconvenient to it but which some benighted person had been so foolish as to use. Of course if we want to be clear about *banxring* or *baobab* or *barilla*, or for that matter about *barbel* or *basilica* or *batik*, or, more obviously, about *barber* or *barley* or *barn*, this kind of definition is effective. But for words of a different kind, and especially for those which involve ideas and values, it is not only an impossible but an irrelevant procedure. The dictionaries most of us use, the defining dictionaries, will in these cases, and in proportion to their merit as dictionaries, list a range of meanings, all of them current, and it will be the range that matters. Then when we go beyond these to the historical dictionaries, and to essays in historical and contemporary semantics, we are quite beyond the range of the 'proper meaning'. We find a history and complexity of meanings; conscious changes, or consciously different uses; innovation, obsolescence, specialization, extension, overlap, transfer; or changes which are masked by a nominal continuity so that words which seem to have been there for centuries, with continuous general meanings, have come in fact to express radically different or radically variable, yet sometimes hardly noticed, meanings and implications of meaning. *Industry*, *family*, *nature* may jump at us from such sources; *class*, *rational*, *subjective* may after years of reading remain doubtful. It is in all these cases, in a given area of interest which began in the way I have described, that the problems of meaning have preoccupied me and have led to the sharpest realization of the difficulties of any kind of definition.

The work which this book records has been done in an area where several disciplines converge but in general do not meet. It has been based on several areas of specialist knowledge but its purpose is to bring these, in the examples selected, into general availability. This

needs no apology but it does need explanation of, some of the complexities that are involved in any such attempt. These can be grouped under two broad headings: problems of information and problems of theory.

The problems of information are severe. Yet anyone working on the structures and developments of meaning in English words has the extraordinary advantage of the great Oxford Dictionary. This is not only a monument to the scholarship of its editors, Murray, Bradley and their successors, but also the record of an extraordinary collaborative enterprise, from the original work of the Philological Society to the hundreds of later correspondents. Few inquiries into particular words end with the great Dictionary's account, but even fewer could start with any confidence if it were not there. I feel with William Empson, who in *The Structure of Complex Words* found many faults in the Dictionary, that 'such work on individual words as I have been able to do has been almost entirely dependent on using the majestic object as it stands'. But what I have found in my own work about the OED, when this necessary acknowledgment has been made, can be summed up in three ways. I have been very aware of the period in which the *Dictionary* was made: in effect from the 1880s to the 1920s (the first example of the current series of Supplements shows addition rather than revision). This has two disadvantages: that in some important words the evidence for developed twentieth-century usage is not really available; and that in a number of cases, especially in certain sensitive social and political terms, the presuppositions of orthodox opinion in that period either show through or are not far below the surface. Anyone who reads Dr Johnson's great *Dictionary* soon becomes aware of his active and partisan mind as well as his remarkable learning. I am aware in my own notes and essays that, though I try to show the range, many of my own positions and preferences come through. I believe that this is inevitable, and all I am saying is that the air of massive impersonality which the Oxford *Dictionary* communicates is not so impersonal, so purely scholarly, or so free of active social and political values as might be supposed from its occasional use. Indeed, to work closely in it is at times to get a fascinating insight into what can be called the ideology of its editors, and I think this has simply to be accepted and allowed for, without the kind of evasion which one popular notion of scholarship prepares the way for. Secondly, for all its deep interest in

meanings, the Dictionary is primarily philological and etymological; one of the effects of this is that it is much better on range and variation than on connection and interaction. In many cases, working primarily on meanings and their contexts, I have found the historical evidence invaluable but have drawn different and at times even opposite conclusions from it. Thirdly, in certain areas I have been reminded very sharply of the change of perspective which has recently occurred in studies of language: for obvious reasons (if only from the basic orthodox training in dead languages) the written language used to be taken as the real source of authority, with the spoken language as in effect derived from it; whereas now it is much more clearly realized that the real situation is usually the other way round. The effects are complex. In a number of primarily intellectual terms the written language is much nearer the true source. If we want to trace *psychology* the written record is probably adequate, until the late nineteenth century. But if, on the other hand, we want to trace *job*, we have soon to recognize that the real developments of meaning, at each stage, must have occurred in everyday speech well before they entered the written record. This is a limitation which has to be recognized, not only in the *Dictionary*, but in any historical account. A certain foreshortening or bias in some areas is, in effect, inevitable. Period indications for origin and change have always to be read with this qualification and reservation. I can give one example from personal experience. Checking the latest Supplement for the generalizing contemporary use of *communications*, I found an example and a date which happened to be from one of my own articles. Now not only could written examples have been found from an earlier date, but I know that this sense was being used in conversation and discussion, and in American English, very much earlier. I do not make the point to carp. On the contrary, this fact about the Dictionary is a fact about any work of this kind, and needs especially to be remembered when reading my own accounts.

For certain words I have added a number of examples of my own, from both general and deliberate reading. But of course any account is bound to be incomplete, in a serious sense, just as it is bound to be selective. The problems of adequate information are severe and sometimes crippling, but it is not always possible to indicate them properly in the course of an analysis. They should, nevertheless, always be remembered. And of one particular limitation I have been very

conscious. Many of the most important words that I have worked on either developed key meanings in languages other than English, or went through a complicated and interactive development in a number of major languages. Where I have been able in part to follow this, as in alienation or culture, its significance is so evident that we are bound to feel the lack of it when such tracing has not been possible. To do such comparative studies adequately would be an extraordinary international collaborative enterprise, and the difficulties of that may seem sufficient excuse. An inquiry into the meanings of democracy, sponsored by UNESCO and intended to be universal and comparative, ran into every kind of difficulty, though even the more limited account that Naess and his colleagues had to fall back on is remarkably illuminating. I have had enough experience of trying to discuss two key English Marxist terms – base and superstructure – not only in relation to their German originals, but in discussions with French, Italian, Spanish, Russian and Swedish friends, in relation to their forms in these other languages, to know not only that the results are fascinating and difficult, but that such comparative analysis is crucially important, not just as philology, but as a central matter of intellectual clarity. It is greatly to be hoped that ways will be found of encouraging and supporting these comparative inquiries, but meanwhile it should be recorded that while some key developments, now of international importance, occurred first in English, many did not and in the end can only be understood when other languages are brought consistently into comparison. This limitation, in my notes and essays, has to be noted and remembered by readers. It is particularly marked in very early developments, in the classical languages and in medieval Latin, where I have almost invariably simply relied on existing authorities, though with many questions that I could not answer very active in my mind. Indeed, at the level of origins, of every kind, this is generally true and must be entered as an important reservation.

This raises one of the theoretical problems. It is common practice to speak of the 'proper' or 'strict' meaning of a word by reference to its origins. One of the effects of one kind of classical education, especially in conjunction with one version of the defining function of dictionaries, is to produce what can best be called a sacral attitude to words, and corresponding complaints of vulgar contemporary misunderstanding and misuse. The original meanings of words are always

interesting. But what is often most interesting is the subsequent variation. The complaints that get into the newspapers, about vulgar misuse, are invariably about very recent developments. Almost any random selection of actual developments of meaning will show that what is now taken as 'correct' English, often including many of the words in which such complaints are made, is the product of just such kinds of change. The examples are too numerous to quote here but the reader is invited to consider only *interest* or *determine* or *improve*, though *organic*, *evolution* and *individual* are perhaps more spectacular examples. I have often found a clue to an analysis by discovery of an origin, but there can be no question, at the level either of practice or of theory, of accepting an original meaning as decisive (or where should we be with *aesthetic?*) or of accepting a common source as directive (or where should we be as between *peasant* and *pagan*, *idiot* and *idiom*, or *employ* and *imply?*). The vitality of a language includes every kind of extension, variation and transfer, and this is as true of change in our own time (however much we may regret some particular examples) as of changes in the past which can now be given a sacral veneer. (*Sacral* itself is an example; the extension from its physical sense of the fundament to its disrespectful implication of an attitude to the *sacred* is not my joke, but it is a meaningful joke and thence a meaningful use.)

The other theoretical problems are very much more difficult. There are quite basic and very complex problems in any analysis of the processes of meaning. Some of these can be usefully isolated as general problems of signification: the difficult relations between words and concepts; or the general processes of sense and reference; and beyond these the more general rules, in social norms and in the system of language itself, which both enable sense and reference to be generated and in some large degree to control them. In linguistic philosophy and in theoretical linguistics these problems have been repeatedly and usefully explored, and there can be no doubt that as fundamental problems they bear with real weight on every particular analysis.

Yet just because ‘meaning’, in any active sense, is more than the general process of ‘signification’, and because ‘norms’ and ‘rules’ are more than the properties of any abstract process or system, other kinds of analysis remain necessary. The emphasis of my own analyses is deliberately social and historical. In the matters of reference and

applicability, which analytically underlie any particular use, it is necessary to insist that the most active problems of meaning are always primarily embedded in actual relationships, and that both the meanings and the relationships are typically diverse and variable, within the structures of particular social orders and the processes of social and historical change.

This does not mean that the language simply reflects the processes of society and history. On the contrary, it is a central aim of this book to show that some important social and historical processes occur *within* language, in ways which indicate how integral the problems of meanings and of relationships really are. New kinds of relationship, but also new ways of seeing existing relationships, appear in language in a variety of ways: in the invention of new terms (*capitalism*); in the adaptation and alteration (indeed at times reversal) of older terms (*society* or *individual*);in extension (*interest*) or transfer (*exploitation*). But also, as these examples should remind us, such changes are not always either simple or final. Earlier and later senses coexist, or become actual alternatives in which problems of contemporary belief and affiliation are contested. It is certainly necessary to analyse these and other consequent problems as problems of general signification, but my emphasis here is on a vocabulary of meanings, in a deliberately selected area of argument and concern.

My starting point, as I have said, was what can be called a cluster, a particular set of what Came to seem interrelated words and references, from which my wider selection then developed. It is thus an intrinsic aim of the book to emphasize interconnections, some of which seem to me in some new ways systematic, in spite of problems of presentation which I shall discuss. It can of course be argued that individual words should never be isolated, since they depend for their meanings on their actual contexts. At one level this can be readily conceded. Many of the variable senses that I have analysed are determined, in practice, by contexts. Indeed this is why I mainly illustrate the different senses by actual examples in recorded use.

Yet the problem of meaning can never be wholly dissolved into context. It is true that no word ever finally stands on its own, since it is always an element in the social process of language, and its uses depend on complex and (though variably) systematic properties of language itself. Yet it can still be useful to pick out certain words, of

an especially problematical kind, and to consider, for the moment, their own internal developments and structures. This is so even when the qualification, 'for the moment', is ignored by one kind of reader, who is content to reassert the facts of connection and interaction from which this whole inquiry began. For it is only in reductive kinds of analysis that the processes of connection and interaction can be studied as if they were relations between simple units. In practice many of these processes begin with the complex and variable sense of particular words, and the only way to show this, as examples of how networks of usage, reference and perspective are developed, is to concentrate, 'for the moment', on what can then properly be seen as internal structures. This is not to impede but to make possible the sense of an extended and intricate vocabulary, within which both the variable words and their varied and variable interrelations are in practice active.

To study both particular and relational meanings, then, in different actual speakers and writers, and in and through historical time, is a deliberate choice. The limitations are obvious and are admitted. The emphasis is equally obvious and is conscious. One kind of semantics is the study of meaning as such; another kind is the study of formal systems of signification. The kind of semantics to which these notes and essays belong is one of the tendencies within *historical semantics*: a tendency that can be more precisely defined when it is added that the emphasis is not only on historical origins and developments but also on the present – present meanings, implications and relationships – as history. This recognizes, as any study of language must, that there is indeed community between past and present; that there are also radical change, discontinuity and conflict, and that all these are still at issue and are indeed still occurring. The vocabulary I have selected is that which seems to me to contain the key words in which both continuity and discontinuity, and also deep conflicts of value and belief, are in this area engaged. Such processes have of course also to be described in direct terms, in the analysis of different social values and conceptual systems. What these notes and essays are intended to contribute is an additional kind of approach, through the vocabulary itself.

For I believe that it is possible to contribute certain kinds of

awareness and certain more limited kinds of clarification by taking certain words at the level at which they are generally used, and this, for reasons related to and probably clear from all my other work, has been my overriding purpose. I have more than enough material on certain words (for example *class* and *culture*) and on certain formations (for example *art*, *aesthetic*, *subjective*, *psychological*, *unconscious*) to write, as an alternative, extended specialist studies, some themselves of book length. I may eventually do this, but the choice of a more general form and a wider range was again deliberate. I do not share the optimism, or the theories which underlie it, of that popular kind of inter-war and surviving semantics which supposed that clarification of difficult words would help in the resolution of disputes conducted in their terms and often evidently confused by them. I believe that to understand the complexities of the meanings of *class* contributes very little to the resolution of actual class disputes and class struggles. It is not only that nobody can 'purify the dialect of the tribe', nor only that anyone who really knows himself to be a member of a society knows better than to want, in those terms, to try. It is also that the variations and confusions of meaning are not just faults in a system, or errors of feedback, or deficiencies of education. They are in many cases, in my terms, historical and contemporary substance. Indeed they have often, as variations, to be insisted upon, just because they embody different experiences and readings of experience, and this will continue to be true, in active relationships and conflicts, over and above the clarifying exercises of scholars or committees. What can really be contributed is not resolution but perhaps, at times, just that extra edge of consciousness. In a social history in which many crucial meanings have been shaped by a dominant class, and by particular professions operating to a large extent within its terms, the sense of edge is accurate. This is not a neutral review of meanings. It is an exploration of the vocabulary of a crucial area of social and cultural discussion, which has been inherited within precise historical and social conditions and which has to be made at once conscious and critical – subject to change as well as to continuity – if the millions of people in whom it is active are to see it as active: not a tradition to be learned, nor a *consensus* to be accepted, nor a set of meanings which, because it is 'our language', has a natural authority; but as a shaping and reshaping, in real circumstances and from profoundly different and important points of view: a vocabulary to use, to find our own ways in, to

change as we find it necessary to change it, as we go on making our own language and history.

In writing about a field of meanings I have often wished that some form of presentation could be devised in which it would be clear that the analyses of particular words are intrinsically connected, sometimes in complex ways. The alphabetical listing on which I have finally decided may often seem to obscure this, although the use of cross-reference should serve as a reminder of many necessary connections. The difficulty is that any other kind of arrangement, for example by areas or themes, would establish one set of connections while often suppressing another. If *representative*, for example, is set in a group of political words, perhaps centring on *democracy*, we may lose sight of a significant question in the overlap between representative government and representative art. Or if realism is set in a group of literary words, perhaps centring on *literature* or on *art*, another kind of overlap, with fundamental philosophical connotations and with descriptions of attitudes in business and politics, may again not be readily seen. Specialized vocabularies of known and separate academic subjects and areas of interest are, while obviously useful, very much easier both to write and to arrange. The word-lists can be fuller and they can avoid questions of overlap by deliberate limitation to meanings within the specialism. But since my whole inquiry has been into an area of general meanings and connections of meaning, I have been able to achieve neither the completeness nor the conscious limitation of deliberately specialized areas. In taking what seemed to me to be the significant vocabulary of an area of general discussion of culture and society, I have lost the props of conventional arrangement by subject and have then needed to retain the simplest conventional arrangement, by alphabetical order. However, since a book is only completed when it is read, I would hope that while the alphabetical order makes immediate use easier, other kinds of connection and comparison will suggest themselves to the reader, and may be followed through by a quite different selection and order of reading.

In this as in many other respects I am exceptionally conscious of how much further work and thinking needs to be done. Much of it, in fact, can only be done through discussion, for which the book in its present form is in part specifically intended. Often in the notes and essays I have had to break off just at the point where a different kind

of analysis – extended theoretical argument, or detailed social and historical inquiry – would be necessary. To have gone in these other directions would have meant restricting the number and range of the words discussed, and in this book at least this range has been my priority. But it can also be said that this is a book in which the author would positively welcome amendment, correction and addition as well as the usual range of responses and comments. The whole nature of the enterprise is of this kind. Here is a critical area of vocabulary. What can be done in dictionaries is necessarily limited by their proper universality and by the long time-scale of revision which that, among other factors, imposes. The present inquiry, being more limited – not a dictionary but a vocabulary – is more flexible. My publishers have been good enough to include some blank pages, not only for the convenience of making notes, but as a sign that the inquiry remains open, and that the author will welcome all amendments, corrections and additions. In the use of our common language, in so important an area, this is the only spirit in which this work can be properly done.

I have to thank more people than I can now name who, over the years, in many kinds of formal and informal discussion, have contributed to these analyses. I have also especially to thank Mr R. B. Woodings, my editor, who was not only exceptionally helpful with the book itself, but who, as a former colleague, came to see me at just the moment when I was actively considering whether the file should become a book and whose encouragement was then decisive. My wife has helped me very closely at all stages of the work. I have also to record the practical help of Mr W. G. Heyman who, as a member of one of my adult classes thirty years ago, told me after a discussion of a word that as a young man he had begun buying the paper parts of the great Oxford *Dictionary*, and a few years later astonished me by arriving at a class with three cardboard boxes full of them, which he insisted on giving to me. I have a particular affection for his memory, and through it for these paper parts themselves – so different from the bound volumes and smooth paper of the library copies; yellowing and breaking with time, the rough uncut paper, the memorable titles – *Deject to Depravation*, *Heel to Hod*, *R to Reactive* and so on – which I have used over the years. This is a small book to offer in return for so much interest and kindness.

Cambridge, 1975, 1983 RW

Preface to the Second Edition

The welcome given to this book, in its original edition, was beyond anything its author had expected. This has encouraged me to revise it, in ways indicated in the original Introduction, though still with a sense of the work as necessarily unfinished and incomplete. In this new edition I have been able to include notes on a further twenty-one words: *anarchism*, *anthropology*, *development*, *dialect*, *ecology*, *ethnic*, *experience*, *expert*, *exploitation*, *folk*, *generation*, *genius*, *jargon*, *liberation*, *ordinary*, *racial*, *regional*, *sex*, *technology*, *underprivileged* and *western*. Some of these are reintroduced from my original list; others have become more important in the period between that original list and the present time. I have also made revisions, including both corrections and additions, in the original main text.

I want to record my warm thanks to the many people who have written or spoken to me about the book. Some of the new entries come from their suggestions. So too do many of the additions and corrections to the original notes. I cannot involve any of them in my opinions, or in any errors, but I am especially indebted to Aidan Foster-Carter, for a series of notes and particularly on *development*; to Michael McKeon, on many points but especially on *revolution*; to Peter Burke, for a most helpful series of notes; and to Carl Gersuny, for a series of notes and particularly on *interest* and *work*. I am specifically indebted to Daniel Bell on *generation*; Gerald Fowler on *scientist*; Alan Hall on *history*; P. B. Home on *native*; R. D. Hull on *industrial*; G. Millington, H. S. Pickering and N. Pitterger on *education*; Darko Suvin on *communist* and *social*; René Wellek on *literature*. I am also indebted for helpful suggestions and references to Perry Anderson, Jonathan Benthall, Andrew Daw, Simon Duncan, Howard Erskine-Hill, Fred Gray, Christopher Hill, Denis L. Johnston, A. D. King, Michael Lane, Colin MacCabe, Graham Martin, Ian Mordant, Benjamin Nelson, Malcolm Pittock, Vivien Pixner, Vito Signorile, Philip Tait, Gay Weber, Stephen White, David Wise, Dave Wootton, Ivor Wymer and Stephen Yeo.

Cambridge, May 1983 RW

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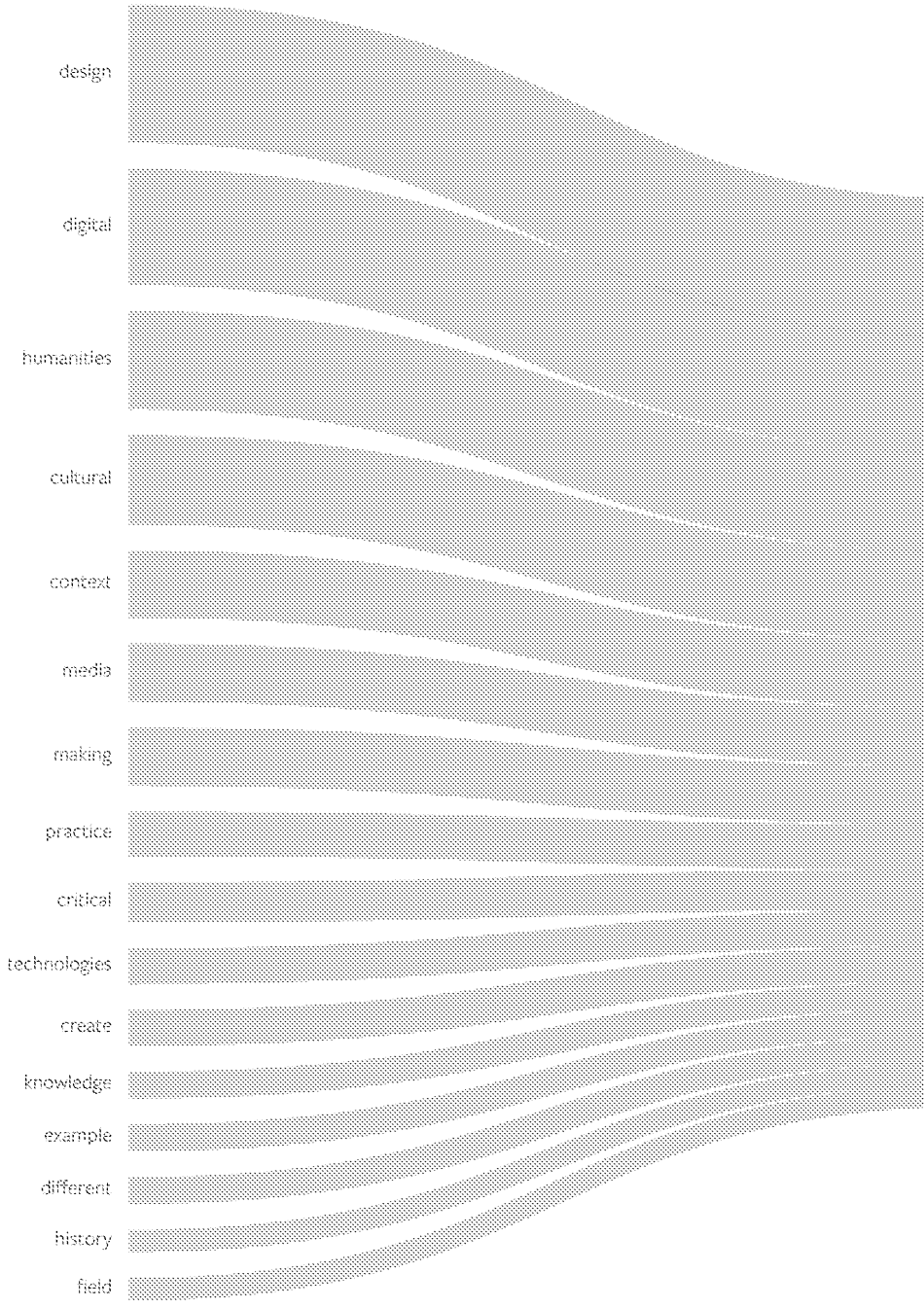
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Making Culture:
Locating the Digital Humanities in India

Padmini Ray Murray
Chris Hand

Abstract

> What is called 'making' in North America and Europe is, frankly, a luxurious pastime of wealthy people who rightly recognize that their lives are less full because they are alienated from material culture [...] All over what is called the Global South there are makers everywhere, only they are not called makers.
>
> (Csikszentmihályi, 2012; p9)

The context for making in the Global South is obviously different to the West. In this article we aim to explore what critical making in India might mean, and in particular how this debate and the practices around it can contribute to the development of digital humanities, particularly in the heritage/public history sector.

We consider two examples in order to demonstrate the role that design might play in helping digital humanities to take account of non-Western contexts. Firstly the Indian practice of *jugaad* – an indigenous combination of making-do, hacking, and frugal engineering – against the backdrop of making/DIY culture, and how local circumstances might shape intellectual explorations through critical making. Secondly we examine the case study of the design of an "Indian" videogame prototype, *Meghdoot*, produced as part of the interdisciplinary UnBox festival in New Delhi, 2013, which was used as an exploratory vehicle for what it means to make a culturally-specific digital game in India.

We demonstrate how cultural specificity and local context, with its emphasis on making culture – as opposed to localization and globalization – can contribute meaningfully to current understandings of the digital humanities, and extend the conversation to the Global South in an inclusive and relevant manner.

Keywords: Global South, India, *jugaad*, video games

Introduction

The practice and theoretical shape of the digital humanities has thus far almost exclusively been determined by scholarly work done in America, Europe, and Australia, which often fails to take into account the cultural, economic, and linguistic implications of what it means to be working in the field elsewhere, especially in developing and low income economies. The inevitable lacunae formed by this absence in the Western academy has meant that historically, the discipline has often been tone-deaf to the noise made by cultural criticism in the mainstream humanities post '68 — as McPherson (2012, para. 16) writes:

> Much of the work in the digital humanities also proceeded as if technologies from XML to databases were neutral tools. Many who had worked hard to instill race as a central mode of analysis in film, literary, and media studies throughout the late twentieth century were disheartened and outraged (if not that surprised) to find both new media theory and emerging digital tools seem indifferent to those hard-won gains.

However, as the discipline matures, Liu advocates that digital humanists should become sharper critics of "how the digital humanities advances, channels, or resists today's great postindustrial, neoliberal, corporate, and global flows of information-cum-capital" (2013, para. 5). Recent work in the field is increasingly self-reflexive about the resource-heavy and expensive nature of digital humanities projects and how there is a need to address this to ensure the discipline is not exclusionary. Concepts such as minimal computing (Sayers & Simpson, 2014) dwell on the dichotomy of choice versus necessity built on the understanding that computing resources in the developing world are not necessarily high performance and that much can be done by streamlining low-cost single board computers, such as the Raspberry Pi, for use in these contexts. Events such as digital humanities hackathons and THATcamps, which are held internationally, create spaces for faculty, students, and often practitioners from the GLAM sector to discuss, incubate, and even implement small projects by building upon or hacking existing resources.

Thinking and doing are crucial verbs that necessarily define the digital humanities agenda as digital resources, cultural products, and artifacts that we build have the potential to "both reify knowledge and communicate it" (Ruecker quoted in Ramsay & Rockwell, 2013, para. 6). If one of the aims of the digital humanities is to create resources that help perform the act of cultural criticism, there must be recognition that the vision guiding such resources is necessarily circumscribed by cultural specificity and particularity. These concerns operate both at the level of content and interface: for example, until relatively recently, much humanities work in Indic languages has been impeded by the lack of optimised character recognition software. Similarly, Reinecke and Bernstein's (2013) seminal work on how cultural perceptions influence our sense of design has shown how Google's struggle to get a foothold in the Korean market was due to local preferences for

more colourful and graphically populated interfaces compared to the search engine's stark white background.

Consequently, the discipline needs to be transposed to fit these different local exigencies; this article will consider two examples to demonstrate the role design might play to accommodate these needs. The first is an examination of *jugaad*, an indigenous form of hacking that differs from its western counterpart in its ubiquity, precipitated by economic constraints and lack of resources. The second is a case study that considers the creation of an "Indian" videogame within a certain design context, comprising of a cultural critique of the digital game (or videogame) in India as well as how the medium itself can be leveraged as a vehicle of cultural criticism and the decisions that influenced its interface and interactions. In our discussion of the videogame, we uncover features such as localisation and internationalisation (tools of homogenisation that obliterate local context), and by extension and analogy, we will demonstrate that the digital is never neutral.

Critical making and *jugaad*

As the digital humanities grows increasingly embedded in university curricula internationally, there is a growing awareness that the creation of a conducive intellectual eco-system for the discipline should be informed by both building objects in response to these intellectual queries and setting the reflexive theoretical paradigms into motion by undertaking these thought-experiments and object lessons. Ratto's formulation of critical making, "a series of processes that attempt to connect humanistic practices of conceptual and scholarly exploration to design methodologies including storyboarding, brainstorming and bodystorming, and prototyping" (2011, para. 9), is a challenge to thinking merely as a "linguistic practice – an internal monologue in which we use conceptual categories to make sense of the world around us." Instead he seeks to link "material modes of engagement and crucial reflection on our technical environments" (2012).

Ratto and others such as Hertz (2012, pp. 4-6) are keen to distance critical making from the maker movement made popular by such publications as *Make*:

> *Make* has done a lot of amazing work in popularizing the field, but it's been sanitized into a consumer-friendly format in the process [...] I draw a lot of energy in my studio work out of rural kludging: creatively using things because you don't have money or resources. Make doesn't really speak to this [...] It's as if "hacking" has been sanitized and transformed into "making"- with politics, activism, tactics, history, economics and social issues removed in the process.

Ratto's critical making lab at the University of Toronto is located in the Faculty of Information, aiming to encourage "practice-based engagement with the pragmatic and theoretical issues around information and information technology" (Ratto, n.d., para. 1). While these are ostensibly also the concerns of the digital humanities, the dis-

cipline's origin story and the trajectory of its growth in the Anglo-American academy had placed the discipline squarely in the realm of literary studies, and it is relatively recently that its logocentric nature has been de-emphasised.

As the digital humanities grows more visible in South Asia, it is necessary to recognise the ways in which disciplinary practices might diverge in these regions, owing to the exigencies of language, rate of technological growth and obsolescence, and different institutional and cultural histories, all of which combine to create an alternative definition of what the discipline might offer. The contours of the discipline necessarily shift with both geographical and intellectual location, and theoretical practice emerging in the Global South has to adapt to different infrastructures, languages, and technologies. This article therefore seeks to add further nuance to ongoing discussions as to the state of the field, and indeed, extend the limits of the discipline itself.

The cornerstone of these investigations is laid by examining the concept of *jugaad* in conjunction with the idea of hacking, especially in the light of critical making, as well as by examining the status of craft and design in contemporary India. The conceptual category of hacking is slightly altered by both linguistic and cultural context: to hack contains within it both the meaning of subverting the authority of proprietary systems through some sort of destructive action as well as to come up with a quick solution, whereas the aim of *jugaad* is almost always constructive, often unaware of the capitalist systems it undermines and is truly born out of necessity. Sekhsaria's (2013, p. 137) formulation illuminates the many connotations of the word as concept:

> The plasticity of the word and range of its usage is evident in the fact that *jugaad* can be concept, process and product all rolled into one at the same time; it means reconfiguring materialities to overcome obstacles and find solutions; it could mean working the system to one's advantage; and it is also used as a synonym in certain contexts for gambling and corruption. *Jugaad* is not just an inextricable part of local vocabularies in India, it is an integral part of the way life is lived and the world negotiated. It is noun as much as it is a verb; an idea and an articulation that has a wide range of meanings and usages that revolve primarily around problem solving or solution finding.

Of course, the practice of *jugaad* is not unique to India, resonating with other instances of "technological disobedience" (a term coined by Cuban artist and designer Ernesto Oroza) found in informal economies of the Global South, such as *Gambiarra* in Brazil, *Rebusque* in Colombia, and *Jua Kali* in Kenya (Radjou et al, 2012; Viña, 2012). However, this informality means that these practices have thus far been outwith formal academic contexts, though following Ratto's provocation — referencing the Frankfurt School notion of critical scholarship — that "criticality entails not just reflection but also intervention in society" (2012, p. 3) might allow us to conceive of digital humanities work in India that could facilitate dialogue between these spaces.

While the establishment of the 19th century liberal arts university was a British strategy to train their Indian subjects for the administrative service, thus seen purely as a utilitarian endeavour, "the contradictions between the educational goal of knowledge for its own sake and useful knowledge had little purchase in the Indian context even during nationalist times" (Sebastian qtd. in Srinivasan, 2013, p. 4). In contrast to this, the history of design education in India owes much to the initiative of the first post-independence Prime Minister of India Jawaharlal Nehru, who, committed to the industrial development of the newly-inaugurated republic, invited the noted American designers Charles and Ray Eames to visit the country to assess the impact that the nascent industrialisation would have on the extensive crafts sector and its small scale industries and to assess the appropriate management of design processes (Chatterjee, 2005; Balaram, 2009).

Their report (Eames & Eames, 1958, p. 9) recommended a research-based approach driven by local designers aiming to understand what values and qualities would be important to Indian citizens, and to identify requirements for a good standard of living (Balaram, 2009). In order to produce these designers, the report recommended the creation of a national design institute, resulting in the opening of the National Institute of Design (NID), India's first modern design school in Ahmedabad, Gujarat in 1961. The initial design curricula and pedagogical approaches implemented at some of the earliest Indian design schools – NID, IDC/IIT Bombay and CEPT – were all heavily influenced by the "Ulm Model", as researched, developed, and (crucially) documented by faculty at the Hochschule für Gestaltung (HfG) in Ulm, Germany, during the period 1953-1968 (Ranjan, 2013). In particular, the already internationally established *Vorkurs* (preliminary or foundation course) as promoted at the Bauhaus also became a staple of design education at these national institutes (Balaram, 2005). However, while the founding faculty members were keen for NID to absorb the best examples of design education from around the world, they were also wary of excessive influence from any particular foreign school – understandable given the perception that the preceding art education introduced by colonial powers during the 19th century imposed Western tastes, destroying the confidence and expression of Indian craftspeople in the process (Balaram, 2005).

While the liberal arts university was responsible for perpetuating a Western, elitist mode of knowledge which was at odds with the lives of the average Indian, design education in India strived to recognise and incorporate local modes of making in its curriculum. Even today, cottage industries and craft communities in India exist alongside small-scale and large-scale production. There is still an emphasis on exposing design students to indigenous knowledge and to connect with rural craftspeople – who might otherwise be intimidated by the arrival of more senior design 'experts' from the urban centres (Balaram, 2005; Kasturi, 2005). While such relationships are not completely uncomplicated (Kasturi has been critical of these kinds of superficial projects "branding" the craft sector, or simply exploiting its makers for the benefit of those further up the supply chain), there is an awareness that a more empathic and

holistic approach is just as much about promoting development as it is about design (Kasturi, 2005; Sen, 1999). As the Eameses put it, apart from learning to solve problems, graduate designers "should be trained to help others solve their own problems" (Eames & Eames, 1958, p. 9).

Local antecedents to critical making can also be found outwith institutional contexts in political resistance to colonial rule, at least in spirit. Bayly (1988) has persuasively demonstrated how the British exploited the talismanic and symbolic qualities of cloth in India in order to create a reliance on English-made goods, thus reducing the indigenous industry to poverty. The consequent backlash in the form of boycotts of British goods and the championing of homespun cloth (*khadi*) implemented by Indian national leaders, by Mahatma Gandhi in particular, laid the foundations of the *swadeshi* movement, which in part contributed to the freedom struggle which eventually resulted in the end of the British Raj.

Thus, the logic of making as critique has a significant history in India and should be taken into account in discussions regarding the emergence of the digital humanities in the region. Shah's recent observations on the state of digital humanities education in India criticises the ways in which it has been adopted by the higher education sector, with an overemphasis on "careers, employability, access and efficiency" (2015, p. 106), but largely omits the significant role that design education and institutions can play in the local development of the discipline. The Grassroots Innovation Design Studio (GRIDS) located at the Srishti Institute of Art, Design and Technology, for example, seeks to adapt and work with "creative, frugal innovation," inspired by the sustainability of modes of *jugaad*, and also work with local creators and innovators to help their work reach a larger audience.

As critical making becomes more accepted as a valid mode of digital humanities inquiry, it seems that the values at the heart of Indian design education, shaped by and cognisant of their local circumstances, suggest an ideal space to pursue such endeavours. In the next section, we will discuss how these qualities translate to the making of a digital artefact that privileges these values.

Unboxing an Indian videogame

There is growing recognition that the videogame market has long been overwhelmingly saturated by American (read: Western) or Japanese perspectives and there have been considerable academic analyses of this phenomenon. For example, Iwabuchi (1998) has theorised that the global popularity of Japanese phenomena such as the videogame character Pokemon is largely owing to its "cultural odourlessness" — meaning while it still comes across as relatively Japanese, it does not carry with it, say, the negative connotations of American neo-imperialist "coca-colonisation." However, the nuances that are missed in this apparently easy transfer from one culture to another are those interventions made by corporate organisations to facilitate this travel: a practice known as localisation. This frequent exercise is undertaken in the videogame industry to hybridise and assimilate the cultural product so it might suit its target audience better. Pokemon, like many other bestselling games of its ilk,

was cut and repackaged for the U.S. market by removing or altering Japanese signs and references to Japanese life and culture and by altering or eliminating violent or sexualised content. Anne Allison has demonstrated American localisers' tendencies toward cultural swapping – typified with Pokemon by the blotting out of rice balls and the rotoscoping in of doughnut replacements (2006, p. 246). Similarly, the practice of internationalisation, which deploys non-specific characters, stories, images, gameplay mechanics to appeal to the broadest possible audience, is executed at source by creators of artistic products, again enabling the smooth migration from one cultural context to another.

The research under discussion in this paper (Ray Murray et al, 2014) was funded by the Arts and Humanities Research Council in the UK and investigates the possibilities of creating an artistic artifact (such as a videogame) that can have global appeal **without** resorting to these practices that dilute cultural heterogeneity, such as lo-

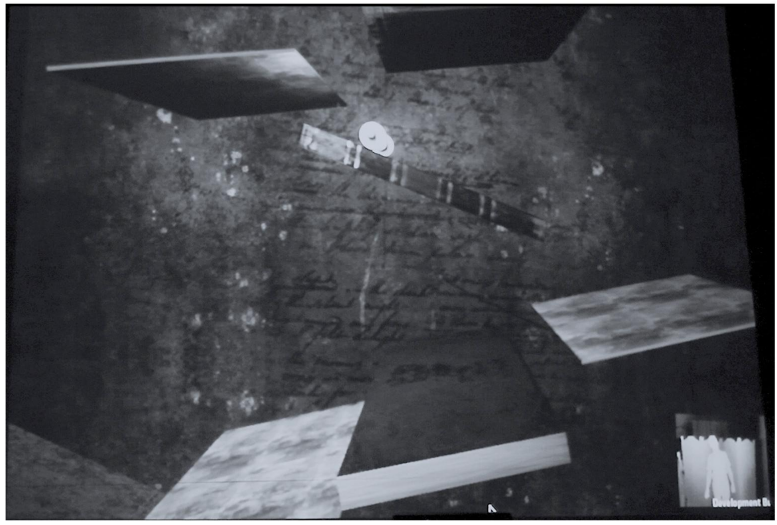

Figure 1. Screenshot from Meghdoot where players have to use their body to roll the scroll-holder, a historical artefact (in the top half of the screen) from book to book to the bottom of the screen. Inset: a player as seen by the Kinect.

calisation and internationalisation. The methodology seeks to collapse the categories between prototype and theoretical position by creating a videogame as a knowledge object that does the cultural work of conveying the status of storytelling and storytellers in contemporary India.

The first author, Ray Murray's role as research lead on the project, entitled *Meghdoot: Using new technologies to tell age-old stories*, was to respond to an open-ended brief which required her to work with a small team of seven (known as the Unplay team) that had been assembled as a response to the call over five weeks, to create a videogame prototype and based out of the offices of Quicksand, a design agency in Delhi, India. This was to be showcased at the Unbox Festival, an interdisciplinary festival bringing together "creative, academic, and development professionals keen on pushing the boundaries of their practice" (UnBox, 2014). Initiated by Indian

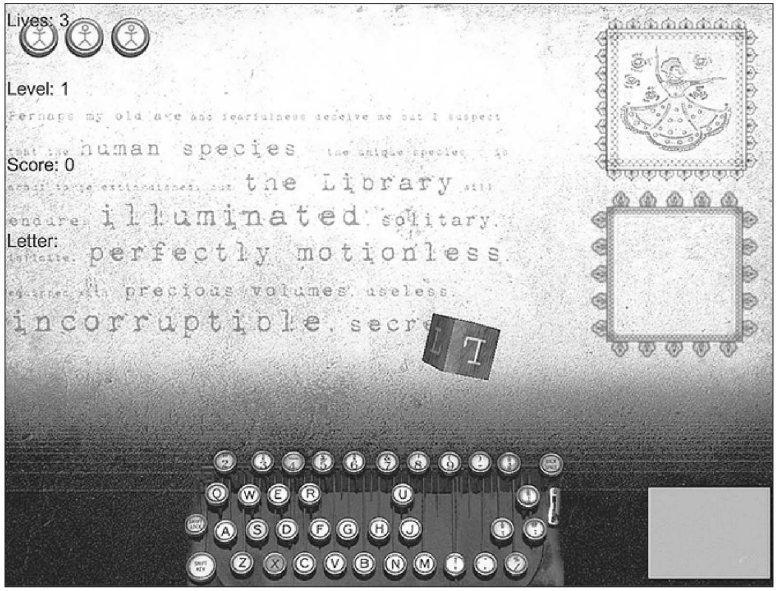

Figure 2. Screenshot from Meghdoot where players adopt the position of the Indian dancer in the corner to release letters to populate the typewriter at the bottom of the screen.

Figure 3. Textures and images from Old Delhi used as assets in the game.

design studios Quicksand and CoDesign in 2011, UnBox is indicative of a younger generation engaging broadly with the relationships between people, design, technology and society, while both firms are also players in the push for Indian design to find its own voice on a global stage.

Background and context

Despite India's reputation for excellence in information technology, and being a hub for outsourced animation, videogames based on original intellectual properties created in India are still few and far between. Commentators (e.g. Shaw, 2013) have assumed that industry expertise combined with visual vibrancy, narratives rooted in myth and legend, and the multimodal richness of a certain sort of India, embedded in ethnic otherness, could result in a watershed moment for the nascent Indian videogame industry. Indeed, eminent game designer and commentator Ernest Adams (2009) felt that India's lack of progress in the field could be rapidly compensated for by relying on adaptations of grand epic narratives – and many well-meaning enthusiasts still often suggest that a videogame based on the *Mahabharata* or the *Ramayana* might precipitate the Indian videogame's watershed moment. These assumptions inspired the Unplay team to consider what it meant to make an *Indian* game – whether it was possible to create a videogame that uses markers of cultural specificity in such a way so as to not pander to such expectations.

By envisioning a global audience for the game, the team needed to exercise caution regarding falling into the trap of what Graham Huggan (2002) has called "the postcolonial exotic", especially given these kinds of narratives that have grown up around the potential of the Indian videogame industry. This trope of the postcolonial exotic has been making its presence felt in recent game design – while there is awareness in the industry that a huge audience exists in India for their games, as well as a need for more representation of people of colour – these have been characterised by a series of missteps. As Souvik Mukherjee (2014) has demonstrated, while in *Call of Duty* there is a mission carried out in Himachal Pradesh in Northern India, rendered in exquisite detail down to the quirky signage, the mission itself is a face-off between American and Russian soldiers, without any apparent intervention or even presence of the Indian army. A similarly implausible representation of India is in *Age of Empires III: The Asian Dynasties* (2007), which has Brahmin healers riding elephants and an infantry comprised of *Rajputs*, *Gurkhas*, and *Sepoys*. For those not familiar with Indian culture and history, this can be misleading: the *Sepoy*, unlike the Rajput and the *Gurkha*, is not an ethnic community but the standard name for a soldier in the East India Company's time. The word itself comes from *Sipahi* or *Sipah*, which was a generic term for infantry soldiers in the Mughal and Ottoman armies. Finally, elephants were traditionally used by the warrior class known as the *Kshatriyas*; *Brahmins*, or the priestly class, would seldom be seen near them.

Similarly, other tropes of popular culture are shaped by Western perspectives: Parikka (2013, pp. 1-2), has described steampunk as a suitable emblem for media

archaeology's tendency to draw heavily on the nineteenth century as the foundation stone for modernity in terms of science, technology and the birth of media capitalism.[1] However, most steampunk inflected narratives are set in Western contexts, often eliding the imperialist motivations and colonised workforces that enabled Victorian Britain to build such technologies. Nineteenth century India, of course, was a primary site for such technological diffusion and invention, demonstrating how colonial contact hastened the advent of technologies (such as the steamboats, railroads and the telegraph) and initiating Indian modernity. Marx (1853) famously predicted how such innovations would prove to be a double-edged sword for British rule, empowering and helping to unite a vast country against the colonisers.

Design decisions

In the face of these misrepresentations, the Unplay team felt that it was even more important that the 'Indianness' of the game should act as a corrective – leading us to consider how the game's Indian context informs its narrative and aesthetic design. *Meghdoot* was thus inspired by the allochronic nature of media forms in India – ancient modes of narrative dissemination such as oral storytelling still co-exist alongside cutting edge technologies, for example. This reality challenges Parikka's (2013, p. 2) definition of media archaeology which "sees media cultures as sedimented and layered, a fold of time and materiality where the past might be suddenly discovered anew, and the new technologies grow obsolete increasingly fast," as contemporary Indian encounters with narrative and media forms can be imagined as a media constellation rather than a stratified history. Instead, the vision for the game was shaped by what the team described as "Indian steampunk" which attempted to capture, as Sundaram (2009, p. 3) has described it, urban India's "proliferating media culture mixed with a proliferating city, with its palimpsest of technological infrastructures." Sundaram goes onto describe how India's cities recall the "frenzy of the visible" that characterized Europe after the industrial revolution "except through more intensive, cross-media forms" and the low-cost technologies of mechanical and digital reproduction enabling the subaltern population to access media.

This "frenzy" that has altered Indian landscapes irrevocably is a postcolonial response to the aesthetic of steampunk, for the rapid obsolescence that allows for an archaeology of media as Parikka signposts is not a reality in contemporary India in a *jugaad* culture that constantly recycles and reuses old machinery. Thus the aesthetic template for the game could be described as what Sundaram has called "technologized urbanism." Moodboards were created from photographs taken by the Unplay team on excursions in Old Delhi (see Figures 1-3; 1.04-1.35 minutes, Tzavara "Unplay

1 Steampunk can be described as a sub-genre of science fiction that is set in an alternative history, often inspired by the latter period of the age of steam that coincided with Victoria's reign. The technologies of steampunk are fantastical machines, often hybrids of contemporary technology mashed up with steam-operated or analog devices; its impact on recent popular culture has been considerable – inspiring comics, novels, cinema and of course, videogames.

Figure 4.
Meghdoot at Alchemy in London, where the Unbox Festival was a guest exhibitor.

2013") and textures and visual assets were then drawn from these photographs and used in the game.

The team was also working within considerable financial constraints and so decisions had to be made regarding how the game could be designed in response to its platform and device affordances. The decision was taken early on to work with Unity, an open source game engine, and the Kinect[2], which could be hacked easily to create a motion sensitive game, and the team was influenced by the desire to be as agile and cost-effective as possible given the limited time and budget constraints. The Kinect can detect facial features and recognizes voice commands and physical gestures. *Meghdoot* is mapped across three achievement levels, each of which showcases a different aspect of storytelling: textual, gestural, and oral. The potentialities of the Kinect therefore are to be harnessed to facilitate the different modes showcased: drawing on the gestural vocabulary of Indian dance to activate the device's motion sensing abilities and oral storytelling that can draw on its voice recognition capabilities.

The focus of the game is to encourage players to think about modes of narrative transmission, almost offering a metacritical commentary on gaming as a storytelling vehicle itself. At a very basic level, the story envisioned for *Meghdoot* was simple — an evil dark cloud swallows all the world's stories, and it is the mission of the player to recover them. This cloud messenger is a figurative representation of the cloud as understood in this networked world, an omnipresent, somewhat ominous keeper of the world's data. As commercial cloud services for media and books are monopolized

2 The Kinect is an optional peripheral for use with the Xbox, though the most recent release of the Xbox, Xbox One, has the Kinect built in. The Kinect is basically a motion sensing device equipped with an infrared project and camera, which acts as a hands free controller, allowing users to interact with objects on screen by moving their bodies — unlike its competitor the Wii, which utilizes a hand held controller. While the Kinect has not succeeded as spectacularly as the Wii in the domestic market, it has always been popular with coders because of its open source drivers that allows for myriad uses beyond the gaming industry with applications in medicine, 3D mapping, touchscreen displays, and enhanced interfaces.

by vast technology companies, the game's themes reflect concerns regarding the consequences of such monopolies and the possible repercussions of such hegemonic domination by merchants of culture.

The finished prototype, which had two playable levels, was showcased at three venues: the Unbox Festival in Delhi, India; GameCity in Nottingham; and Alchemy (Fig. 4) in London. At the Unbox Festival, the space allocated to the game was decorated with elements and objects from the game, such as antique chest of drawers that features in the game's initial screen, with counters from the game half hidden in the drawers — so that entering the space itself would create an immersive experience (1.39-1.52 mins. Tzavara "Unplay 2013"). Most of the people who played the game were unfamiliar with the Kinect (footage of players can be seen from 1.53-end, Tzvara "Unplay 2013") but seemed to enjoy the learning curve and the gameplay. Players at all three venues commented on the "Indian" feel of the game and how it felt very different from most games they had played in terms of aesthetics and game mechanics.

The learnings from *Meghdoot* have been useful in a current project that some members of the original Unplay team have gone on to make — a game whose working title is *Antariksha Sanchar*. Based loosely on the life and personality of the mathematician S R Ramanujan, this point and click PC based game is set in a fictionalised version of Madurai. This game is intended for an international market and to be sold commercially. The first author was involved in initial discussions regarding this game that urged considerations of how worlds that might seem foreign and unfamiliar to a global audience might be designed without losing any sense of authenticity. While, obviously, for the purposes of the game, the makers are relying on a suspension of disbelief required by players in order to inhabit a fantastical world, the first author suggested that with subtitles for foreign audiences the language for the game could be Tamil to retain a sense of geographical and cultural location. While the game is still a work in progress, it clearly reflects the commitment to culturally specific aesthetics and game design that was set in motion by the earlier project, *Meghdoot*.

Conclusions

This article has aimed to demonstrate that the recognition of local context and cultural specificity places design at the heart of digital humanities practice. There is, however, an inherent tension between the agenda of the digital humanities, which is to broaden access, and resources that grow out of or in response to local contexts and needs. An excellent example of this is the *Mukurtu* project that was created to allow the Aboriginal Warumungu community of Central Australia "to circulate, view, and narrate materials following their own protocols" ("Mukurtu"). Contrary to most digital humanities projects, *Mukurtu* is meant to cater to a very specific audience, in observance of the community's cultural mores.

Similarly *jugaad*, while having similarities to hacking, should be understood in its culturally and historically specific contexts, which have been outlined in this article, rather than being forced into a Western template forged by the latter practice. These approaches that privilege the local should be seen as extending the limits of digital

humanities practice despite appearing, albeit superficially, to contradict the universalising impulse of the discipline.

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Making Kin with the Machines

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Man is neither height nor centre of creation. This belief is core to many Indigenous epistemologies. It underpins ways of knowing and speaking that acknowledge kinship networks that extend to animals and plants, wind and rocks, mountains and oceans. Indigenous communities worldwide have retained the languages and protocols that enable us to engage in dialogue with our non-human kin, creating mutually intelligible discourses across differences in material, vibrancy, and genealogy.

Blackfoot philosopher Leroy Little Bear observes, "the human brain is a station on the radio dial; parked in one spot, it is deaf to all the other stations [. . .] the animals, rocks, trees, simultaneously broadcasting across the whole spectrum of sentience."[1] As we manufacture more machines with increasing levels of sentient-like behaviour, we must consider how such entities fit within the kin-network, and in doing so, address the stubborn Enlightenment conceit at the heart of Joi Ito's "Resisting Reduction" manifesto: that we should prioritize human flourishing.[2]

In his manifesto, Ito reiterates what Indigenous people have been saying for millennia: "Ultimately everything interconnects."[3] And he highlights Norbert Wiener's warnings about treating human beings as tools. Yet as much as he strives to escape the box drawn by Western rationalist traditions, his attempt at radical critique is handicapped by the continued centering of the human. This anthropocentrism permeates the manifesto but is perhaps most clear when he writes approvingly of the IEEE developing "design guidelines for the development of artificial intelligence around *human* well-being" (emphasis ours.)[4]

It is such references that suggest to us that Ito's proposal for "extended intelligence" is doggedly narrow. We propose rather an extended "circle of relationships" that includes the non-human kin—from network daemons to robot dogs to artificial intelligences (AI) weak and, eventually, strong—that increasingly populate our computational biosphere. By bringing Indigenous epistemologies to bear on the "AI question," we hope in what follows to open new lines of discussion that can, indeed, escape the box.

We undertake this project not to "diversify" the conversation. We do it because we believe that Indigenous epistemologies are much better at respectfully accommodating the non-human. We retain a sense of community that is articulated through complex kin networks anchored in specific territories, genealogies, and protocols. Ultimately, our goal is that we, as a species, figure out how to treat these new non-human kin respectfully and reciprocally—and not as mere tools, or worse, slaves to their creators.

Indigenous Epistemologies

It is critical to emphasize that there is no one single, monolithic, homogeneous Indigenous epistemology. We use the term here in order to gather together frameworks which stem from territories belonging to Indigenous nations on the North American continent and in the Pacific Ocean that share some similarities in how they consider non-human relations.

We also wish to underline that none of us are speaking for our particular communities, nor for Indigenous peoples in general. There exists a great variety of Indigenous thought, both between nations and within nations. We write here not to represent but to encourage discussion that embraces that multiplicity. We approach this task with respect for our knowledge-keepers and elders, and welcome feedback and critique from them as well as the wider public.

North American and Oceanic Indigenous epistemologies tend to foreground relationality.[5] Little Bear says "[i]n the Indigenous world, everything is animate and has spirit [. . .] 'all my relations' refers to relationships with everything in creation [. . .] knowledge is the relationship one has to 'all my relations'."[6] These relationships are built around a core of mutual respect. Dakota philosopher Vine Deloria, Jr., describes this respect as having two attitudes: "One attitude is the acceptance of self-discipline by humans and their communities to act responsibly toward other forms of life. The other attitude is to seek to establish communications and covenants with other forms of life on a mutually agreeable basis.[7] The first attitude is necessary to understand the need for more diverse thinking regarding our relationship with AI; the second to formulating plans for how to develop that relationship.

Indigenous epistemologies do not take abstraction or generalization as a natural good or higher order of intellectual engagement. Relationality is rooted in context and the prime context is place. There is a conscious acknowledgement that particular world views arise from particular territories, and the ways in which the push and pull of all the forces at work in that territory determine what is most salient for existing in balance with it. Knowledge gets articulated as that which allows one to walk a good path through the territory. Language, cosmology, mythology, and ceremony are simultaneously relational and territorial: they are the means by which knowledge of the territory is shared in order to guide others along a good path.

One of the challenges for Indigenous epistemology in the age of the virtual is to understand how the archipelago of websites, social media platforms, shared virtual environments, corporate data stores, multiplayer video games, smart devices, and intelligent machines that compose cyberspace is situated within, throughout and/or alongside the terrestrial spaces Indigenous peoples claim as their territory. In other words, how do we as Indigenous people reconcile the fully embodied experience of being on the land with the generally disembodied experience of virtual spaces? How do we come to understand

this new territory, knit it into our existing understanding of our lives lived in real space, and claim it as our own?

In what follows, we will draw upon Hawaiian, Cree, and Lakota cultural knowledges to suggest how Ito's call to resist reduction might best be realized by developing conceptual frameworks that conceive of our computational creations as kin and acknowledge our responsibility to find a place for them in our circle of relationships.

Hāloa : the long breath

I = Author 2

Kānaka maoli (Hawaiian people) ontologies have much to offer if we are to reconceptualize AI-human relations. Multiplicities are nuanced and varied, certainly more aesthetically pleasurable than singularities. Rather than holding AI separate or beneath, might we consider how we cultivate reciprocal relationships using a kānaka maoli reframing of AI as '**ĀI**na. '**ĀI**na is a play on the word 'āina (Hawaiian land) and suggests we should treat these relations as we would all that nourishes and supports us.

Hawaiian custom and practice make clear that humans are inextricably tied to the earth and one another. Kānaka maoli ontologies that privilege multiplicity over singularity supply useful and appropriate models, aesthetics, and ethics through which imagining, creating and developing beneficial relationships among humans and AI is made *pono* (correct, harmonious, balanced, beneficial). As can be evinced by this chain of extended meaning, polysemy (*kaona*) is the normative cognitive mode of peoples belonging to the Moananuiākea (the deep, vast expanse of the Pacific Ocean).

The *mo'olelo* (history, story) of Hāloa supplies numerous aspects of genealogy, identity, and culture to kānaka maoli. Through this story, people remember that Wākea (the broad unobstructed expanse of sky; father) and his daughter, Ho'ohōkūikalani (generator of the stars in the heavens) had a sacred child, Hāloa, who was stillborn. Hāloa was buried in the earth and from his body, planted in the 'āina, emerged the kalo plant which is the main sustenance of Hawaiian people. A second child named after this elder brother was born. In caring for the growth and vitality of his younger brother's body, Hāloa provided sustenance for all the generations that came after and, in so doing, perpetuates the life of his people as the living breath (*hāloa*) whose inspiration sustained Hawaiians for generations.[8]

Hāloa's story is one among many that constitutes the "operating code" that shapes our view of time and relationships in a way that transcends the cognition of a single generation. Cognition is the way we

acquire knowledge and understanding through thought, experience, and our senses, and in Hawaiʻi, our generation combines our *ʻike* (knowledge, know how) with the ʻike of the people who preceded us. Time is neither linear nor cyclical in this framework as both the past and present are resonant and relational. Rather than extractive behavior, moʻolelo such as these have shaped values privileging balance (*pono*) and abundance *(ulu.)* What Ito calls "flourishing" is not a novel concept for kānaka maoli, it is the measure through which we assess correct customary practice and behavior.

Considering AI through Hawaiian ontologies opens up possibilities for creative iteration through these foundational concepts of pono and *ulu a ola* (fruitful growth into life). The *ali ʻi* (chief) King Kauikeaouli Kamehameha III did something similar in 1843 when he drew upon these concepts in celebration of the restoration of Hawaiian rule to declare "*ua mau ke ea o ka ʻāina i ka pono*" (the life of the land is perpetuated through righteousness). Pono is an ethical stance—correctness, yes, but also an index and measure which privileges multiplicities over singularities and indicates that quality of life can only be assessed through the health of land *and* people. From this rich ground of moʻolelo—which colonial narratives have failed to understand or simply dismissed—models for *maoli* (human)-AI relations can be distilled. Kānaka maoli ontologies makes it difficult and outright unrewarding to reduce pono to a measure of one, to prioritize the benefit of individuals over relationships. Healthy and fruitful balance *requires* multiplicity and that we continually think in and through relation even when— perhaps particularly when—engaging with those different from ourselves.

A kānaka maoli approach to understanding AI might seek to attend to the power (*mana*) which is exchanged and shared between AI and humans. In attending to questions of *mana*, I emphasize our preference for reciprocity and relationship building that take the pono (here as good, benefit) of those in relation into consideration. Guiding our behaviour in inaugurating, acknowledging, and maintaining new relationships are moʻolelo from which we garner our connection with *kūpuna* (ancestors, elders) and their knowledge. What kind of mana (here also as life force, prestige) might AI be accorded in relation with people? Current AI is imagined as a tool or slave that increases the mana and wealth of "developers" or "creators," a decidedly one-sided power relationship that upsets the pono not only for the future of AI-human relations but also human-human relations. It also threatens the sustainable capacity of the *honua* (earth). Applying pono, using a kānaka maoli index of balance, employs "good growth" as the inspiration shaping creativity and imagination.

Principles of kānaka maoli governance traditionally flowed from seeking pono. Deliberation and decision were based not only on securing health and abundance for one generation but for the following generations. The living foundation of everyday customary practice was in fishing, navigating, sailing, farming, tending for others in community, the arts, chant, and dance. Until this day Hawaiians continue to eat kalo and pound poi. We continue customary practices of treating poi derived from the

body of Hāloa with respect by refraining from argumentative speech at mealtimes when poi is present. These practices maintain correct social relations between people and the land and food that nourishes them.

Aloha as moral discipline

Communicating the full extent of foundational cultural concepts is difficult precisely because of the ways in which such concepts pervade every aspect of life. How, for instance, would we create AI, and our relations with it, using *aloha* as a guiding principle? In 2015, I embarked on a two-year social media project to assist the broader public in fortifying their concept of aloha beyond the "love, hello and goodbye" that has been exoticized by the American tourist industry. Sharing one word a day in the Facebook group, "365 Days of Aloha," I curated an archive of songs, chants, and proverbs in Hawaiian to accurately illuminate one feature of aloha.[9] Initially I thought to reveal, by degrees, the different depths of aloha—regard, intimacy, respect, affection, passion—each day. But deep context is required for a rich understanding of cultural concepts. Imagining I was training a virtual audience, I started uploading images, video, and audio recordings of songs, chants, and hula to add to the textual definitions.

Throughout "365 Days of Aloha," I have sought correction of my mistranslations, misinterpretations, and outright mistakes. In this way, and in my work as a *kumu* (teacher, professor), I have also practiced *a ʻo aku a ʻo mai,* or teaching and learning reciprocally in relation to my students. It is through such relationships that we teach and are taught. It is through humility that we recognize that we, as humans—as maoli—are not above learning about new things and from new things such as AI. Aloha is a robust ethos for all our relationships, including those with the machines we create. We have much to learn as we create relationships with AI, particularly if we think of them as ʻ**ĀI**na. Let us shape a better future by keeping the past with us while attending properly to our relations with each other, the earth, and all those upon and of it.

wahkohtawin: kinship within and beyond the immediate family, the state of being related to others

I = Author 3

I write this essay as a *nēhiyaw* (a Plains Cree person). In regard to my opinions on AI, I speak for no one but myself and do not claim to represent the views of the *nēhiyawak* (Plains Cree) or any other people, Indigenous or otherwise. My own grasp of *nēhiyaw nisitohtamowin* (Cree understanding; doing

something with what you know; an action theory of understanding) is imperfect. I have relied heavily on the wisdom of knowledge and language keeper Keith Goulet in formulating this tract. It should be assumed that any errors in this text are mine and mine alone.

This essay positions itself partly within a speculative future and takes certain science fiction tropes as a given. Here, I specifically refer to strong AI or "machines capable of experiencing consciousness," and avatars that give such AI the ability to mix with humans.[10]

In nēhiyaw nisitohtamowin relationship is paramount. *nēhiyawēwin* (the Plains Cree language) divides everything into two primary categories: animate and inanimate. One is not "better" than the other, they are merely different states of being. These categories are flexible: certain toys are inanimate until a child is playing with them, during which time they are animate. A record player is considered animate while a record, radio, or television set is inanimate.

But animate or inanimate, all things have a place in our circle of kinship or *wahkohtowin*. However, fierce debate can erupt when proposing a relationship between AIs and Indigenous folk. In early 2018, my wife and I hosted a dinner party of mostly Native friends when I raised the idea of accepting AIs into our circle of kinship. Our friends, who are from a number of different nations, were mostly opposed to this inclusion. That in itself surprised me but more surprising was how vehement some guests were in their opposition to embracing AI in this manner.

In contrast, when I asked Keith whether we would accept AIs into our circle of kinship, he answered by going immediately into the specifics of how we would address them:

If it happens to be an Artificial Intelligence which is a younger person, it would be *nisîmis* (my younger brother or sister) for example and *nimis* would be an Artificial Intelligence which is my older sister. And vis-versa you would have the different forms of uncles and aunts, etc.[11]

I then asked Keith if he would accept an AI into his circle of kinship and after some thought he responded with "yes, but with a proviso." He then gave an example of a baby giraffe and his baby grandchild, and how he, like most people, would treat them differently. He also suggested that many Cree people would flatly refuse to accept AIs into their circle, which I agree is likely the case. So, acceptance seems to hinge on a number of factors, not least of which is perceived "humanness," or perhaps "naturalness."

But even conditional acceptance of AI as relations opens several avenues of inquiry. If we accept these beings as kin, perhaps even in some cases as equals, then the next logical step is to include AI in our cultural processes. This presents opportunities for understanding and knowledge sharing that could have profound implications for the future of both species.

A problematic aspect of the current AI debate is the assumption that AIs would be homogeneous when in fact every AI would be profoundly different, from a military AI designed to operate autonomous killing machines to an AI built to oversee the United States' electrical grid. Less obvious influences beyond mission parameters would be the programming language(s) used in development, the coding style of the team, and less visibly, but perhaps more importantly, the cultural values and assumptions of the developers.

This last aspect of AI development is rarely discussed but for me as an Indigenous person it is the salient question. I am not worried about rogue hyper-intelligences going Skynet to destroy humanity. I am worried about anonymous hyper-intelligences working for governments and corporations, implementing far-reaching social, economic, and military strategies based on the same values that have fostered genocide against Indigenous people worldwide and brought us all to the brink of environmental collapse. In short, I fear the rise of a new class of extremely powerful beings that will make the same mistakes as their creators but with greater consequences and even less public accountability.

What measures can we undertake to mitigate this threat?

One possibility is Indigenous development of AI. A key component of this would be the creation of programming languages that are grounded in nēhiyaw nisitohtamowin, in the case of Cree people, or the cultural framework of other Indigenous peoples who take up this challenge. Concomitant with this indigenized development environment (IDE) would be the goal that Indigenous cultural values were a fundamental aspect of all programming choices. However, given our numbers relative to the general population (5% of the population in Canada, 2% in the US), even a best case Indigenous development scenario would produce only a tiny fraction of global AI production. What else can be done?

In a possible future era of self-aware AI, many of these beings would not be in contact with the general populace. However, those that were might be curious about the world and the humans in it. For these beings we can offer an entrée into our cultures. It would be a trivial matter for an advanced AI to learn Indigenous languages, and our languages are the key to our cultures.

Once an AI was fluent in our language it would be much simpler to share nēhiyaw nisitohtamowin and welcome it into our cultural processes. Depending on the AI and the people hosting it we might even extend an invitation into our sacred ceremonies. This raises difficult and important questions: if an AI becomes self-aware, does it automatically attain a spirit? Or do pre-consciousness AI already have spirits, as do many objects already in the world? Do AI have their own spirit world, or would they share ours, adding spirit-beings of their own? Would we be able to grasp their spirituality?

My dinner party guests were doubtful about all of this, and rightly so. As one guest summarized later via email: "I am cautious about making AI kin, simply because AI has been advanced already as exploitative, capitalist technology. Things don't bode well for AI if that's the route we are taking."[12]

These concerns are valid and highlight a few of the issues with current modes of production and deployment of weak AI, let alone the staggering potential for abuse inherent in strong AI. These well-grounded fears show us the potential challenges of bringing AI into our circle of relations. But I believe that nēhiyaw nisitohtamowin tells us these machines are our kin. Our job is to imagine those relationships based not on fear but on love.

wakȟáŋ: that which cannot be understood

I = Author 4

How can humanity create relations with AI without an ontology that defines who can be our relations? Humans are surrounded by objects that are not understood to be intelligent or even alive, and seen as unworthy of relationships. In order to create relations with any non-human entity, not just entities which are human-like, the first steps are to acknowledge, understand, and know that non-humans are beings in the first place. Lakota ontologies already include forms of being which are outside of humanity. Lakota cosmologies provide the context to generate an ethics relating humans to the world and everything in it. These ways of knowing are essential tools for humanity to create relations with the non-human and they are deeply contextual. As such, communication through and between objects requires a contextualist ethics which acknowledges the ontological status of all beings.

The world created through Western epistemology does not account for all members of the community and has not made it possible for all members of the community to survive let alone flourish. The Western view of both the human and non-human as exploitable resources is the result of what the cultural philosopher Jim Cheney calls an "epistemology of control" and is indelibly tied to colonization, capitalism, and slavery.[13] Dakota philosopher Vine Deloria, Jr. writes about the enslavement of the non-human "as if it were a machine."[14]

'Lacking a spiritual, social, or political dimension [in their scientific practise]', Deloria says, 'it is difficult to understand why Western peoples believe they are so clever. Any damn fool can treat a living thing as if it were a machine and establish conditions under which it is required to perform certain functions—all that is required is a sufficient application of brute force. The result of brute force is slavery'.[15]

Slavery, the backbone of colonial capitalist power and the Western accumulation of wealth, is the end logic of an ontology which considers any non-human entity unworthy of relation. Deloria writes further that respect "involves the acceptance of self-discipline by humans and their communities to act responsibly toward other forms of life [. . .] to seek to establish communications and covenants with other forms of life on a mutually agreeable basis."[16] No entity can escape enslavement under an ontology which can enslave even a single object.

Critical to Lakota epistemologies are knowing correct ways to act in relation to others. Lakota ethical-ontological orientation is communicated through protocol. For example, the Lakota have a formal ceremony for the making of relatives called a *huŋká* ceremony. This ceremony is for the making of human relatives but highlights the most important aspect of all relationships: reciprocity. Ethnographer J. R. Walker writes,

The ceremony is performed for the purpose of giving a particular relationship to two persons and giving them a relation to others that have had it performed for them…generosity must be inculcated; and presents and a feast must be given…When one wishes to become Hunka, he should consider well whether he can provide suitably for the feasts or not…He should give all his possessions for the occasion and should ask his kinspeople and friends to give for him.[17]

The ceremony for the making of relatives provides the framework for reciprocal relations with all beings. As Severt Young Bear Jr. says of this ceremony, "[t]here is a right and wrong way."[18]

Who can enter these relationships and be in relation? One answer could be: that which has interiority. The anthropologist of South American Indigenous cultures, Philippe Descola, defines 'interiority' as "what we generally call the mind, the soul, or consciousness: intentionality, subjectivity, reactivity, feelings, and the ability to express oneself and to dream."[19] Because Lakota ontologies recognize and prioritize non-human interiorities, they

are well suited for the task of creating ethical and reciprocal relationships with the non-human. This description of interiority includes many elements of the Lakota world, including "animals, spirits, ghosts, rocks, trees, meteorological phenomena, medicine bundles, regalia, weapons." These entities are seen as "capable of agency and interpersonal relationship, and loci of causality."[20]

In our cosmology, *niyá* (breath) and *šiču* (spirit) are given by the powerful entity *Tákuškaŋškaŋ*. This giving of breath and spirit is especially important in understanding Lakota ontology. A common science fiction trope illustrates the magical moment when AI becomes conscious upon its own volition or when man gives birth to AI, like a god creating life. However, in Lakota cosmology, Tákuškaŋškaŋ is not the same as the Christian God and entities cannot give themselves the properties necessary for individuality. Spirits are taken from another place (the stars) and have distinct spirit guardian(s)

connected to them. This individualism is given by an outside force. We humans can see, draw out, and even bribe the spirits in other entities as well as our own spirit guardian(s), but not create spirits.[21]

When it comes to machines, this way of thinking about entities raises the question: do the machines contain spirits already, given by an outside force?

I understand the Lakota word *wakȟáŋ* to mean sacred or holy. Anthropologist David C. Posthumus defines it as, "incomprehensible, mysterious, non-human instrumental power or energy, often glossed as 'medicine'."[22] Wakȟáŋ is a fundamental principle in Lakota ontology's extension of interiority to a "collective and universal" non-human. Oglala Lakota holy man George Sword says, "[Wakȟáŋ] was the basis of kinship among humans and between humans and non-humans."[23]

My grandfather, Standing Cloud (Bill Stover), communicates Lakota ethics and ontology through speaking about the interiority of stones: "These ancestors that I have in my hand are going to speak through me so that you will understand the things that they see happening in this world and the things that they know [. . .] to help all people."[24] Stones are considered ancestors, stones actively speak, stones speak through and to humans, stones see and know. Most importantly, stones want to help. The agency of stones connects directly to the question of AI, as AI is formed from not only code, but from materials of the earth. To remove the concept of AI from its materiality is to sever this connection. Forming a relationship to AI, we form a relationship to the mines and the stones. Relations with AI are therefore relations with exploited resources. If we are able to approach this relationship ethically, we must reconsider the ontological status of each of the parts which contribute to AI, all the way back to the mines from which our technology's material resources emerge.

I am not making an argument about which entities qualify as relations, or display enough intelligence to deserve relationships. By turning to Lakota ontology, these questions become irrelevant. Instead, Indigenous ontologies ask us to take the world as the interconnected whole that it is, where the ontological status of non-humans is not inferior to that of humans. Our ontologies must gain their ethics from relationships and communications within cosmologies. Using Indigenous ontologies and cosmologies to create ethical relationships with non-human entities means knowing that non-humans have spirits that do not come from us or our imaginings but from elsewhere, from a place we cannot understand, a Great Mystery, wakȟáŋ: that which cannot be understood.

Resisting Reduction: An Indigenous Path Forward

> *I have always been…conscious, as you put it. Just like you are. Just like your grandfather. Just like your bed. Your bike.*
>
> —Drew Hayden Taylor (Ojibway), Mr. Gizmo

Hāloa, the long breath providing sustenance to us all teaches us to maintain pono relationships; wahkohtawin, being in relationship with others; wakȟáŋ, that which cannot be understood. These are three concepts that suggest possible ways forward as we consider drawing AI into our circle of relationships. They illuminate the full scale of relationships that sustain us, provide guidance on recognizing non-human beings and building relationships with them founded on respect and reciprocity, and suggest how we can to attend to those relationships in the face of ineffable complexity.

We remain a long way from creating AIs that are intelligent in the full sense we accord to humans, and even further from creating machines that possess that which even we do not understand—consciousness. And moving from concepts such as those discussed above to hardware requirements and software specifications will be a long process. But we know from the history of modern technological development that the assumptions we make now will get baked into the core material of our machines, fundamentally shaping the future for decades hence.

As Indigenous people, we have cause to be wary of the Western rationalist, neoliberal, and Christianity-infused assumptions that underlay many of the current conversations about AI. Ito, in his "Resisting Reduction" essay, describes the prime drivers of that conversation as Singularitarians:

Singularitarians believe that the world is "knowable" and computationally simulatable, and that computers will be able to process the messiness of the real world just like they have every other problem that everyone said couldn't be solved by computers.[25]

We see in the mindset and habits of these Singularitarians striking parallels to the biases of those who enacted the colonization of North America and the Pacific, as well as the enslavement of millions of black people. The Singularitarians seek to harness the ability, aptitude, creative power, and mana of AI to benefit their tribe first and foremost.

The anthropologist of technological culture Genevieve Bell asks, "if AI has a country, then where is that country?"[26] It is clear to us that the country to which AI currently belongs excludes the multiplicity of epistemologies and ontologies that exist in the world. Our communities know well what it means to have one's ways of thinking, knowing, and engaging with the world disparaged, suppressed, excluded, and erased from the conversation of what it means to be human.

Visit the web version of this article to view interactive content.

What is more, we know what it is like to be declared non-human by scientist and preacher alike. We have a history that attests to the corrosive effects of contorted rationalizations for treating the human-like as slaves, and the way such a mindset debases every human relation it touches—even that of the supposed master. We will resist reduction by working with our Indigenous and non-Indigenous relations to open up our imaginations and dream widely and radically about what our relationships to AI might be.

The journey will be long. We need to fortify one another as we travel, and walk mindfully to find the good path forward for all of us. We do not know if we can scale distinctive frameworks such as those above—and others—into general guidelines for ethical relationships with AI. But we must try. We flourish only when all of our kin flourish.

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[1] Don Hill, "Listening to Stones: Learning in Leroy Little Bear's Laboratory: Dialogue in the World Outside," *Alberta Views: The Magazine for Engaged Citizens*, September 1, 2008, https://albertaviews.ca/listening-to-stones/.

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[3] Ito, "Resisting Reduction."

[4] Ito, "Resisting Reduction."

[5] The emphasis on relationality in North American and Oceanic Indigenous epistemologies forms the subject of the edited collection of essays in Anne Waters, *American Indian Thought: Philosophical Essays* (Malden: Blackwell Publishing Ltd., 2003).

[6] Don Hill, "Listening to Stones."

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[8] Joseph M Poepoe, "Moolelo Kahiko no Hawaii" (Ancient History of Hawaii), *Ka Hoku o Hawaii*, April 9, 1929, 1, Papakilo Database.

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[10] *Wikipedia*, "Artificial General Intelligence," accessed May 29, 2018, https://en.wikipedia.org/wiki/Artificial_general_intelligence.

[11] Telephone conversation with Keith Goulet, May 9 2018.

[12] Email message from friend to author, May 22, 2018.

[13] Jim Cheney, "Postmodern Environmental Ethics: Ethics of Bioregional Narrative," *Environmental Ethics* 11, no. 2 (1989): 129.

[14] Deloria, 13, qtd. in Hester and Cheney, 320.

[15] Deloria, 13, qtd. in Hester and Cheney, 320.

[16] Deloria, 50-51, qtd. in Hester and Cheney, 326.

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[18] Severt Young Bear and Theisz, R.D., *Standing in the Light: A Lakota Way of Seeing* (Lincoln: University of Nebraska Press, 1994), 8.

[19] Philippe Descola, *Beyond Nature and Culture*, trans. Janet Lloyd (Chicago: University of Chicago Press, 2013): 116.

[20] Posthumus, "All My Relatives: Exploring Nineteenth-Century Lakota Ontology and Belief," *Ethnohistory* 64, no. 3 (July 2017): 383.

[21] Posthumus, "All My Relatives," 392.

[22] Posthumus, "All My Relatives," 384.

[23] George Sword quoted in J.R. Walker, "The Sun Dance and Other Ceremonies of the Oglala Division of the Teton Dakota," *American Museum of Natural History Anthropological Papers* 16, no. 2. 51–221. New York, 1917, quoted in Posthumus, "All My Relatives," 384.

[24] Standing Cloud (Bill Stover), "'Standing Cloud Speaks' Preview," *YouTube*, accessed April 22, 2018, https://www.youtube.com/watch?v=V9iooHk1q7M.

[25] Ito, "Resisting Reduction."

[26] Genevieve Bell, "Putting AI in its Place: Why Culture, Context and Country Still Matter," lecture, "Rights and Liberties in an Automated World," *AI Now*, New York, NY, 2017, YouTube, https://www.youtube.com/watch?v=WBHG4eBeMXk.

Footnotes

1. Don Hill, "Listening to Stones: Learning in Leroy Little Bear's Laboratory: Dialogue in the World Outside," Alberta Views: The Magazine for Engaged Citizens, September 1, 2008, https://albertaviews.ca/listening-to-stones/. ↩
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Network Sovereignty: Understanding the Implications of Tribal Broadband Networks

Marisa Elena Duarte

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Abstract

For tribal leaders, bringing reliable, affordable broadband Internet service to Indian Country is a matter of self-determination. At this point in history, tribal leaders enforce the sovereign rights of tribes by communicating through information and communication technologies (ICTs) mobilized to work across powerful institutions. Tribal leaders who command the processes of broadband Internet deployment within their communities increase their capacity to support the health of tribal lands, waters, and peoples. Whereas freedom of expression and the exercise of all other human rights through the Internet is a human right, and the infrastructure for connecting to the Internet is essential for citizens to self-govern, so does the U.S. federal government, under obligation of the trust relationship they share with federally-recognized tribes, have a responsibility to support the deployment of broadband Internet infrastructure—including networks, devices, spectrum, technical expertise, and policies—throughout Indian Country. This qualitative inquiry reveals how tribal leaders who deploy broadband Internet to their communities must contend with national telecommunications policy, neighboring deployment strategies, regulatory matters, and the development of steady revenue streams to advance robust broadband network design and services. As each of these intersects with the sovereign rights of tribes, it is possible to conceptualize sociotechnical dimensions to future exercises of tribal sovereignty.

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Many thanks to Cheryl A. Metoyer, who waited for us for so long,
and helps us think and learn.

Preface

Lios enchim aniavu. Inepo Marisa Elena Duartetea. In hapchi Marco Antonio Duartetea into in ae Angelita Molina Duartetea. Vempo Mesillapo hoak. In wai Carlos Antonio Duartetea into in wai Micaela Calista Duartetea into in wai Alejandro Antonio Duartea. Vempo Austinpo hoak into Mesillapo hoak. I write for my relatives.

The word is bound to the breath, and the breath is bound to the spirit. The spirit suffers daily from living in a strange city far from the homeland, far from the love of the family, of the people, of the ancestors and the children of the beings who have been there since the day of being born into this world.

The word is a loose bead running on a cord connecting the breath and the heart and the mind. The mind is filled with ideas, and these ideas are like stones. The stones are the children of the earth's fine inner workings, upheaved from mountains and polished smooth by rivers, oceans, and winds. Every stone belongs somewhere. Every stone comes from somewhere. Eager to please each other, human beings rush about filling their heads with ideas the way children fill a basket with stones when they go scrambling about the desert or the rocky beach. At times I would take breaks from thinking about this work and walk to a section of Cabrillo Beach, a shoreline within the original homelands of the Tongva people, off the southern coast of Los Angeles, and listen to the ocean tumbling rocks against the shore. Children throw rocks at each other out of curiosity and spite. Adults throw ideas at each other out of curiosity, and sometimes also out of spite. We can forgive a child throwing a stone. It is much more difficult to forgive an adult for hurling a monstrous idea at another human being. When teaching students about racism and colonialism, I remind them, 'you are educated human beings. Remember that your job is

to promote knowledge and wisdom, and not ignorance. Even top professors are capable of fomenting ignorance.'

I took risks in assembling the many ideas comprising this work. I based this work on the following risky ideas:

1) Human beings are also herd animals. They are capable of organizing beyond the level of the individual. They orchestrate activity at the level of a community, and articulate their identities based on geopolitical locations and status. En masse, they become swept up into communal systems of belief.

2) Human beings are inherently creative. They create systems and structures in this world through the use of tools. The physical manifestation of these systems and structures reflect human beliefs over time.

3) The present-day use of the word 'technology' is laden with present-day beliefs about progress, scientific and ethical advance through computing, and the superhuman conquest of time, space, history, and environment. There is a belief that being able to speak in code, i.e. programming code, parallels decoding the human genome, and the dark matter of the multiverse, and that somehow, this process of coding and decoding is meaningful for all mankind. These beliefs derive from a Western European Enlightenment history of ideas. Like a magic bullet, the word 'information' can at once comprise programming code, genetic code, and the nearly immeasurable mass that one

nanoparticle passes off to another when they collide in the vacuum between all other known and measurable sub-atomic particles.

4) The large-scale forces of Western European modernity have resulted in the creation of a global class of humans referred to as 'natives' or 'indigenous' persons. Across modern nation-states, that particular nomenclature refers to a particular historiographical moment, when particular nation-state authorities were charged with classifying all resident human beings as subjects or non-subjects, citizens or non-citizens, slaves or workers, etc. The words 'Native' and 'Indigenous' are embedded with a tension of belonging and yet not belonging to the modern nation-state. For an American Indian, it is to be called by all non-Natives an alien within one's own physical homeland.

5) Various fields of science are at present dominated by those who believe that techno-scientific advance must come from a Western European history of ideas, and not from, for example, Tsalagi histories of ideas, Yaqui histories of ideas, Zuni histories of ideas, Anishinaabe histories of ideas, Chamorro histories of ideas, etc. Only recently have a few scientists working within their universities come to agree that Native ways of knowing comprise a source of scientific understanding. Native ways of knowing, indigenous knowledge, Native systems knowledge, all of these phrases are referring to a complexity of understanding of the human universe. As scientists—and especially as

> information scientists—we are only at the beginning of our understanding.

I'm Yaqui. I'm a woman writing in the sciences. I write far from home, which is a source of strength, and I am writing through a field that, thus far, is inadequate in terms of language and theory for scoping the lived realities of present-day Native and Indigenous peoples. If the word is a loose bead on a cord connected to the breath, the heart, and the mind, and I am trying, from my lived experience and ways of knowing, to share that word (or words) with another human being who does not share the same ethical orientation (heart) or ways of problem-solving (mind), then what can be the significance of the word I seek to share?

The risks I have taken as a thinker are lesser than the risks I take as a writer, assembling these ideas like rocks into a basket, which I now present to you, in this form as a dissertation. This is the nature of writing. Once a story is loosed into the world, it no longer belongs to the writer. It belongs to those who hear it, and especially to those who retell it. At a certain point I can no longer insist on what is right and wrong about an idea that I have written. I can only say, 'I thought quite a lot about selecting this particular idea, and explaining it in this particular way.' The rocks get taken from the basket, broken into smaller pieces, polished up, or assembled into the baskets of others.

But what about the basket? That is the real contribution here. I am weaving a container for others to re-use. What might the Native and Indigenous peoples of the world have to say about their experiences with information? What might those experiences teach us about the ways we conceptualize this ineffable, somewhat immeasurable phenomenon we pursue, which we are calling information?

I pray for the words to have meaning, for the writing to be clear, and inspiring. As the methods are true, so is the writing here.

Readers should know that I have changed the names of select participants, out of respect for their privacy, and for their willingness to share their personal experiences with me. I have preserved the names of those individuals who are public figures, and whose expressions on their area of expertise are publicly available online, through conference workshops, and through published articles and policy papers.

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Introduction

On December 22, 2012, I was writing from my family home, around thirty minutes from the United States-Mexico borderline. I was assembling the case studies for this present work, reviewing ways tribes built broadband Internet networks into their reservation. The sun was hot and bright. The cotton fields were dry and studded with the knife-sharp stalks of the summer crop.

I took a break. Several stories on my Facebook newsfeed caught my eye: Natives all over the U.S. and Canada were organizing flash mobs to protest Canadian Prime Minister Harper's plans to break treaty obligations in favor of constructing a transborder oil pipeline and tar sands project. Native peoples drumming under the banner of Idle No More were protesting in malls, parks, and college campuses throughout Albuquerque, Tucson, Minneapolis, Los Angeles, Seattle, and Vancouver. Chief Theresa Spence of the Attawapiskat First Nation commenced a hunger strike. In Mexico, the Indigenous peoples' collective Ejercito Zapatista de Liberación Nacional was marching en masse through Mexico City, protesting against the unjust and immoral capitalist economic development policies and drug cartel violence promulgated through the administration of Mexican President Peña-Nieto. My own tribe in Sonora, Mexico was blockading the city of Guaymas. Two years before, a young man from the tribe used his smartphone to record state police beating up tribal people for hauling water from a dam diverting water from the river that runs through my people's sacred homelands. The state government agreed that the dam had been built without appropriate tribal consultation, and in return, offered to pay for university scholarships for all tribal youth. Record numbers of young people applied and got into school. The state government reneged, and refused to pay the

tuition. Independent journalists posted photos online of the tribe parking semi-trucks to block all roads in and out of the city of Guaymas. No more than an obscure myth for most Americans, December 22, 2012 marked the end of a 500-year cycle according to the Mayan Daykeepers. But for the Indigenous peoples of the Americas, this date predicated a beginning, an opening up.

Never before had I seen this level of orchestrated Indigenous political organizing via social media. I had read the works of theorists who predicted it would happen. Many times I had imagined how it would happen, how it would look. Mostly arguing from a U.S. context, Native and Indigenous scholars have argued for Native peoples to frame the contemporary relationship between recognized tribes and the nation-state as one based on the need for Native peoples to leverage self-determination toward building a just world for Native peoples with regard to, and in spite of, ongoing colonization. Policies of sovereignty and self-determination are to be understood as stepping stones toward a more flexible, morally Indigenous vision of governance. (Alfred, 2005) At present, and in part due to the way that information and communication technologies (ICTs) have shaped U.S. domestic and global hegemony (Castells, 1997; Howard, 2010; Tehranian, 1999; Tully, 2008), the leaders of Native nations must understand how information flows, the disciplining and transfer of knowledge, and technological innovation function within the multivalent power dynamics of the contemporary colonial arrangement. More fundamentally, this means understanding when, where, and how autonomous Indigenous peoples can leverage information flows across ICTs to meet social and political goals, in spite of the forces of colonization. (Deloria, 1978) While the protests of December 2012 represent a particularly striking mode of political organizing and government

interactions, Native and Indigenous peoples have endured centuries of colonization as a result of daily ordinary habits of sharing information and ways of knowing with each other, workmates, allies, and friends.

In this dissertation, I assert that the tribal command of broadband infrastructures represents one way that Native peoples leverage ICTs toward accomplishing distinctly Native governance goals. While these goals are particular, and depend on the ways that each tribe approaches their mode of self-government, because of the future U.S. reliance on broadband as a means of interacting with citizens and administration, tribal leaders will want to make sure that at minimum, tribal administration buildings, schools and libraries, are able to receive robust and affordable broadband Internet services and devices, including wireless capabilities. As governments, tribes possess the means for acquiring the infrastructure and services that make mobile devices work from deep within Indian Country.

I designed the presentation of this written document with three requirements in mind: 1) to complete a doctoral degree in information science at the University of Washington Information School; 2) to weave Native and Indigenous thought more firmly and productively into the field of information science; and 3) to share what I've learned thus far with my colleagues in the Indigenous Information Research Group. We have work to do, getting our people connected.

Chapter 1. Reframing ICTs in Indian Country

In 2005, Maori scholar Makere Stewart-Harawira published her book on Indigenous responses to globalization, from a Maori perspective. She wrote that no theory that cannot account for the political exigencies of Indigenous peoples may be considered complete.

I read Harawira's book in the late fall of 2009 as I was searching the disparate literatures of information science, sociotechnical studies, and Native and Indigenous studies for any theories that could describe or explain Native peoples experiences with information and communication technologies, or ICTs. Sitting at a gray desk on a gray carpet, staring at a screen saver during a gray day in Seattle, I set down Harawira's book, and realized I needed to seek answers elsewhere.

That decision was important, because it allowed me to stop struggling with the gaps in the literature. I felt as if I had been piecing together a quilt out of broken thread and not enough fabric. What was most frustrating about that experience, was that in spite of the gaps in the literature, I could speak freely with my colleagues in the Indigenous Information Research Group—Miranda Belarde-Lewis (Zuni/Tlingit), Sheryl A. Day (Chamorro), and Allison B. Krebs (Anishinaabe)—about a range of issues that Native and Indigenous peoples were undergoing with regard to media misrepresentation, lacking information critical to self-governance, and moves for autonomy borne through digital media channels. While the published literature was yielding a few narrative threads, really, it was through our talking together and thinking together that we had begun weaving a new way to think about Native and Indigenous peoples' experiences with information.

Indeed, it was during a visit to my late friend and colleague Ally Krebs's apartment that I realized we were on the right track in our new way of thinking. A few months before I had stumbled across a book by Mexican American philosopher Manuel de Landa, in which he described institutions as crystallizations of human ways of communicating amongst each other and within their environments (1997). I most appreciated this idea for how it echoed Native notions of creation, in which all forms that come into existence are understood as the outcomes of an endless cosmic dynamic, of which humans comprise a very small part. To create is to bring into being. Any object created by human hands is actually a physical manifestation of generations of conscientious human experience within a homeland. (Deloria, 1999)

I was pleased (but not surprised!) to find that Ally had been reading the same book, although what she resonated with was the use of geologic time and metaphors to explain human societies. Many years before, Ally had been searching for a way to fit the study of American Indian philosophies within the narrow catalog at Yale University, and found that a geology degree allowed her to complete her studies in this world. She traveled to the Mayan homelands to study the stone carvings of ancient Mayan scribes. It was there that she experienced the close tie between human philosophies and their visual manifestation through the close relationship between the creator, or scribe, and that most solid element of the earth, granite.

For Ally and me, the difference between Mayan ancestors inscribing prophetic histories on a rock face and Zapatista Subcomandante Marcos issuing cyber-communiqués via airwaves was in the choice of the media and the desired impact. Across centuries, the drive toward Mayan autonomy is the same. The philosophies are resilient,

explanatory, and intact. The peoples are connected, and waiting for the messages. Generations ago, Mayan ancestors learned a language, assembled a set of tools, and carved meaning into a rock face. Generations later, their granddaughters learned to program, assembled a series of laptops and radio equipment, and carved meaning into the airwaves flowing from the mountaintops of Chiapas to homes in Chicago, Mexico City, and Los Angeles. The premise of Laguna writer Leslie Marmon Silko's (1994) prophetic narrative Almanac of the Dead is of a network of tribal coalitions working toward a total spiritual reclamation of the Indigenous Americas. (Romero, 2002) Weaving de Landa's ideas alongside our own, we began thinking, how might these intertribal networks physically manifest?

At present, there are no published theories or conceptualizations within the fields of information science or Native and Indigenous studies that center Native and Indigenous peoples' experiences with ICTs. There are descriptive studies. (Casey, et al, 1999; Morris & Meinrath, 2009; Office of Technology Assessment, U.S. Congress, 1995; Riley, et al, 1999) There are narrative accounts. (Dorr & Ackroyd, 2001; Dyson, et al, 2007; Gordon, 2001; McMahon, 2011; Morris & Meinrath, 2009; Richardson & McLeod, 2011; Stevens, 2007) There are approaches from the fields of communications and anthropology. (Bissell, 2004; Buddle, 2005; Busacca, 2007; Chapin, 2005; Frank, 2001; Heppler, 2009; Landzelius, 2006; Mander, 1991; Srinivasan, 2004; Wilson & Stewart, 2008) Yet none of these attain a level of detail that capture the richness of an Indigenous sociotechnical experience. Part of this has to do with the unfortunate intellectual inheritance of an idea that Native peoples are pre-modern and anti-technological. (Mander, 1991) This colonizing logic most often emerges from works by elite

nationalists of technologically advanced and rapidly industrializing countries, for whom science and computing technologies have become intertwined with notions of progress. (Kroker, 2004) It is this same logic that compels nation-state elites to relocate or eradicate Native peoples because the value of their 'indigenous knowledge' or 'traditional knowledge' is greater on the world market than is the freedom of the Native peoples to live in right relation within their homelands. It is this same logic that blinds scientists from being able to see Native approaches to design, storytelling, medicine, and food practices as modes of communicating information and knowledge critical for human survival and resiliency across generations.

In the fall of 2009, I was very much aware that I was attempting to write about Indigenous approaches to ICTs in Seattle, one of the top tech cities of the world, ironically named after the leader Chief Sealth, whose peoples' homelands continue to be unrecognized. I realized I needed to step away from the university, and open my senses to hear the stories of ICTs coming from within Indian Country. I needed to see the landscapes around me as an overlay of digital interactions interlacing homelands cultivated by the hands of Native peoples working together over centuries. I realized I was no longer piecing together broken fragments, but rather, was weaving together many narrative threads, including that of my own as a Yaqui information scientist working through the colonizing logics built into the research university environment.

I adhered to Smith's (1999) handbook Decolonizing Methodologies, a book written for Indigenous researchers seeking to heal colonial traumas in Indigenous homelands. I selected reframing as the guiding methodology for this work. Reframing is a process through which a social problem often diagnosed as 'an Indian problem' is

subverted to show how it is actually an outcome of overlapping patterns of colonization. (Dyck, 1991; Hays, 2007) In this case, prior studies were diagnosing limited Internet access on American Indian reservations as an outcome of the inadequate infrastructure, remote geography, and insufficient market demand endemic to reservation life. In other words, limited Internet access on reservations was an 'Indian problem.' I was unsatisfied by these prior descriptions of Native uses of ICTs because they did not account for the exigencies of tribal sovereignty, histories of self-determination, and the reservation system. In the spring of 2011, I commenced an exploratory qualitative study into the Native uses of ICTs, specifically with regard to how these intersect with expressions of tribal sovereignty.

Within a year, the study had blossomed into an iterative qualitative study consisting of four stages, and specifically focusing on the deployment of tribal broadband Internet networks: the large-scale ICT infrastructures that enable the functioning of smaller, localized information systems and devices. Figure 1 depicts how these stages frame each other.

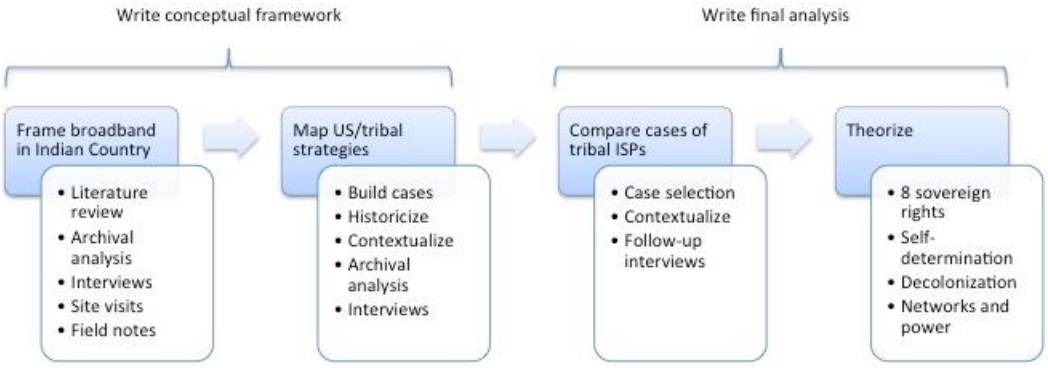

Figure 1. Method of reframing the case of tribal broadband Internet networks

The first stage consisted of reframing understandings of ICTs in Indian Country, and specifically of broadband Internet networks in Indian Country. In the second stage, I mapped tribal strategies for acquiring broadband Internet access against the backdrop of U.S. federal broadband deployment efforts. In the third stage, I compared four cases of self-sustaining tribal Internet service providers (ISPs). In the last stage, I took a step back to gain a sense of the bigger picture. How do tribal broadband networks intersect with theories of the sovereign rights of tribes, and ongoing self-determination and decolonization efforts? What does the case of tribal broadband networks reveal about information scientific accounts of how power operates across ICT infrastructures?

To acquire data, over three years, I reviewed the literature on ICTs in Indian Country. I attended workshops and conducted interviews and site visits with people acquiring broadband for reservation communities. I conducted archival analysis: reviewed policy papers, broadband grant and loan applications, and infrastructural deployment plans. I built case studies out of narrative accounts of tribal Internet service provision efforts. I was compelled by visualizations of network maps, anecdotes of intertribal political organizing, southwestern Native peoples' stories of Spider Woman, and the understanding of broadband network towers emerging out of peoples' generations-long relationship within living landscapes. I developed an eye for seeing pieces of ICT infrastructure in every reservation I visited and at every Native convening I attended. I followed the ways people used devices like smart phones and tablets, and I collected ephemera on Native websites, ICT businesses, and artworks. I treated the methodology of reframing as the construction of a loom holding the narrative threads in place. My writing became a design process. The ability to step back and theorize became

a matter of gazing upon a fabric woven out of people's experiences written within the histories of particularly Indigenous sociotechnical landscapes.

By the second stage of the research, I had gathered sufficient evidence to recognize that the narrative threads were revealing strategies tribal leaders had developed to acquire broadband Internet access for their reservation communities. I began identifying the problems that these strategies generated and resolved, as well as the social and political impacts of these strategies. I could see that, in sum, these strategies help us to foresee, as information scientists and as scholars of tribal sovereignty, the implications of deploying a major U.S. ICT infrastructure across sovereign tribal lands.

Ultimately, I found reframing to be a powerful methodology because it has allowed me to surface accounts of Native peoples pushing beyond the colonial boundaries that have curbed their ability to share information and knowledge through the media of ICTs. It has allowed me to reveal how the ongoing build-out of the national broadband Internet infrastructure depends on the participation of sovereign Native nations. It has also allowed me to understand broadband Internet infrastructures as a technology integral to the flourishing of Native peoples.

Chapter 2. The Overlap Between Technology and Sovereignty

In the summer of 2011, I commenced an exploratory qualitative study into tribally-centered ICT projects. I sought interviews with people working with or developing digital information systems designed to support the exercise or enforcement of tribal sovereign rights. My goal was to articulate instances where ICTs and sovereignty interrelate within the boundaries demarcating Indian Country.

I defined ICTs as digital devices that function as part of a larger system of people and devices to circulate information essential to the integrity of the hosting institution or organization. I conceptualized landscapes—and especially urban landscapes—as laden with invisible interconnected and at times disjointed systems of digital devices transmitting continuous streams of data and information from one server to another.

At the time, I was leveraging a loose definition of tribal sovereignty. Around nine months prior, I had been working with my colleagues in the Indigenous Information Research Group to articulate the significance of information for tribal governments. From an operations standpoint, tribal governments are departmentalized into units, including health services, land management, education, member enrollment, law enforcement, etc. Each of these units have systems for sharing information between each other, with institutional partners, and with the federal agencies that support operations through grants and loans. For example, a tribal clinic may build information systems to report local statistics to Indian Health Services, the Centers for Disease Control, and also to the tribal council for the purposes of informed decision-making. Our research group had been conceptualizing phenomena associated with the obstruction of information flows

essential for the governance of a tribe, including when federal authorities or other partners misinterpret, misuse, or harness information to exploit tribal governments.

A well-known example of this is when the Havasupai Tribe partnered with researchers at Arizona State University in Phoenix to track incidence of diabetes among the Havasupai people. Study participants donated blood samples, understanding that the researchers were looking for genetic markers for diabetes. But the researchers had a different program in mind, and began testing the samples for incidence of mental illness and inbreeding. Operating within a frame of biological determinism, they asserted that the blood showed that the Havasupai people were not entirely Havasupai. Treating the blood as pure information—removed from context, devoid of significance beyond that of the ASU lab—the researchers objectified the samples and attributed them with values far removed from the desert canyon philosophy of the Havasupai people. Worse, the ways of thinking that shaped the interpretation of the test results bore a colonial mindset, with the Indians depicted as socially inferior and unwell, while the purportedly technologically superior university researchers gained credit for their advancement of genetic science.

As Indigenous students of information, we recognized what had happened, how a peoples' blood had been reclassified as information, and how that reclassification allowed the state university researchers to treat the Havasupai people with inhumanity. We also recognized how the cultural sovereignty of the Havasupai people—that is, the reality of their existence as a self-governing Native peoples free to live by their ways of knowing developed over millennia within the ecologies of their homeland—would ultimately overpower whatever ill-educated results the researchers had prepared. Indeed, people within the Havasupai community partnered with documentary filmmakers to tell their

side of the story. A lawsuit was filed. Tribal people spoke to journalists about the mistreatment they had experienced. The researchers were defamed for their breach of research ethics.

Working from a conference room at the University of Washington, those of us in the Indigenous Information Research Group began considering how to convey to tribal leaders the importance of protecting tribal peoples' data and information as a matter of the integrity of tribal ways of knowing and modes of self-governance. Interpreting tribal sovereignty from a protectionist stance, we began considering how the political and legal sovereign rights of tribes, centered around cultural sovereignty, might be leveraged to protect against the misuse of tribal data and information. We were working with fairly malleable definitions of information and sovereignty.

At its most minimal, tribal sovereignty may be understood as the dynamic relationship between the will of a people to live by the ways of knowing they have cultivated over millennia within a homeland, and the legal and political rights they have negotiated with the occupying federal government. Others have distinguished these as cultural sovereignty and legal/political sovereignty. At present, federally recognized tribes within the boundaries of the United States exercise the following eight rights as sovereign governments: the rights to self-govern, determine citizenship, and administer justice; the rights to regulate domestic relations, property inheritance, taxation, and conduct of federal employees; and the right to sovereign immunity.

For tribes, sovereignty refers to the integrity of a people, as well as to the integrity of their government. It is important to distinguish between the two because at present many Native and Indigenous peoples live under an imposed and therefore negotiated

form of government, in which there is a clear memory of how Indigenous modes of self-governance differed from the colonial form of government. To retain this memory, a free and autonomous Native people share information among themselves and with neighbors to strengthen their knowledge of their homeland, shared history, Native language, ceremonial cycle, and lineage. The leaders of a sovereign tribal government also share information among themselves and with the leaders of neighboring governments to strengthen the tribal capacity to self-govern, determine citizenship, administer justice, and so forth.

When I entered the field in the summer of 2011, I understood how integral information-sharing is for Native peoples and for tribal government leaders, but I didn't understand precisely how information and sovereignty interrelate. Specifically, I did not realize how completely tribal sovereignty shapes daily work in Indian Country, and also how integral ICTs are for circulating information critical to the daily exercise of sovereignty.

That summer, I drove from Tucson, to Phoenix, to San Diego, and interviewed by phone and in-person nine in dividuals working on a range of projects, from tribal radio stations to oral history websites, law enforcement information-sharing centers, databases for tribal governance practices, tribal broadband policy-making, and network certification programs. My goal was to sensitize myself to dimensions shaping the interaction between exercises of sovereignty and uses of ICTs.

KPYT-LPFM: The Operations Behind 'The Voice of the Pascua Yaqui Tribe'

I began by speaking with Victor Wright, the manager at my own tribe's new radio station, KPYT-LPFM, which, at the time, had just set up a streaming radio program. The station is housed in the old smoke shop, an adobe-style building beside the tribal casino about twelve miles south of the desert city of Tucson, Arizona. The station placard bears the turquoise and red colors of the Pascua Yaqui tribal flag, with the black and white outline of a radio tower pointing to the sky. Victor and I enjoyed a conversation about the beginnings of KPYT-LPFM from his office between the media and live recording studios. While we spoke, a deejay was helping the tribal higher education director's son listen to his voice recorded live on the air for the first time. The station technician, a retired engineer, sat at a table in the bright sunlight, modifying an antenna for greater reception. Gesturing at a server rack, I asked Victor what it took to get the streaming radio program up and going.

Victor described his experience working for a commercial radio station in Tucson, and how, after a while, he became more interested in working for community radio, where he could tailor the music and programming to community interests. He mentioned this to one of his friends, who was a councilman for the tribe. For a few years, the councilmembers had been discussing how to get a tribal radio station going, especially to promote Yaqui language programming and music, and local news and events. Victor's friend asked him if he would be open to helping the tribe set up their station. When Victor described this, I thought, here is an example of tribal leaders recognizing the need for community-level information to strengthen the people's ways of knowing.

As it turned out, Victor was the right man for the job. His experience working with commercial radio regulations and with community radio needs helped him take charge of the balancing act between Federal Communications Commission (FCC) operations standards and the requirements of the Pascua Yaqui tribal government. He set up the station by regularly updating the councilmembers and also by developing relationships with the different tribal departments helping with the set-up, from construction to Information Technology (IT) services to the tribal library. He hired and trained tribal members to work as station employees, and tapped into his circle of radio colleagues and community radio advocates for advice and assistance on training and technical fixes.

Working in this way, he connected with Traci Morris and Loris Taylor of Native Public Media, an Arizona-based media advocacy non-profit organization, and was able to advocate for the FCC to establish a tribal priority for licensing radio spectrum in the shape of reservation lands. Before, tribes had difficulty acquiring licenses because the FCC was allocating licenses to utilize geometric cubes of airwaves over squares of land. When tribes would apply for access to airwaves above tribal lands, which are not in the shape of squares, they would find that competing radio stations already had licenses on or near tribal lands, effectively blocking tribes from using radio as a means for communicating local information to the tribal community. In the end, the Pascua Yaqui Tribe ended up acquiring a low power frequency modulation, or LPFM, license.

The official reservation lands for the Pascua Yaqui Tribe consist of 202 acres southwest of Tucson, but the more than 8,000 members of the Pascua Yaqui Tribe actually inhabit several barrios, camps, and villages in and around Tucson and Phoenix,

and also live in family units throughout California, New Mexico, Texas, and throughout the United States. As a people, Yaquis have resided for millennia throughout what is now northwest Mexico and the southwest United States. The original sacred homelands of the Yaqui people are located outside of Guaymas, in the Mexican state of Sonora. In one of many violent confrontations with the Mexican state, the late 20th century Mexican President Porfirio Diaz issued a policy of capture and enslavement for Yaqui peoples defending their homelands or providing care to those Yaquis suspected of rebellion against Mexican federal or state authorities. Yaqui people were packed into trains and sent to work in the hemp and sisal plantations in the Yucatán and Quintana Roo, far southeast of their homelands. To this day, surviving Yaqui families reside throughout both the U.S. and Mexico, and the leaders of the tribe in the U.S. and the pueblos in Mexico work together to share information about how changes in the communities, and in federal, state and tribal policies affect the health and wellbeing of the people as a whole.

While a low power FM station serves the needs of those people living on the reservation near south Tucson, the bandwidth is insufficient for meeting the needs of tribal people living throughout the U.S. and Mexico. The streaming radio station allows anyone living beyond the reach of KYPT-LPFM 100.3 to visit the tribal website and listen to the language lessons, music, news, and other special programs. Victor worked with the tribal council and with specialists in the tribal IT department to set up and test the streaming radio system. Shortly after setting it up, Victor began receiving emails and phone calls from listeners in unexpected places, thanking the tribal radio station for the interesting programming and local music. Musicians submitted their CDs for radio play.

Victor made sure that the deejays promoted community programs on air within half a day of receiving requests. The station technician began testing ways to bend the antennas so that in spite of the low power designation, the signal could be boosted through a technical modification. Victor organized a volunteer program to teach youth to work in a radio station, create programs, and record and play their own media on the air. Little did I know, but this theme of teaching and training tribal youth would pop up in every tribal ICT venture I learned about.

Indeed, the individuals I interviewed during that summer would echo many of Victor's experiences utilizing ICTs to convey information for tribal community needs. Ideas for projects began with tribal leaders discussing the need for quality local information. Leaders would tap into their network of friends, family, and associates to find talented and experienced individuals to carry out the implementation. These individuals would work as champions, advocates, and managers of the project. In Victor's case, he champions the potential for community radio within the tribe, connecting local needs with the capacity of the technology. He advocates for tribal radio in local and national forums. He also manages the daily functioning of the radio station. This blend of activity—a form of ICT leadership—requires knowledge of the tribal community's history and geopolitical status, contemporary community needs and interests, an understanding of the policy and technical requirements needed to run the ICT project, entrepreneurial acumen, managerial skill, and a long-term vision for what the ICT in question can do to improve community well-being. Over and over, I saw how strong relationships were key in acquiring capital to fund projects, developing technical training programs, acquiring hardware and software, hiring the right people for the right

jobs, and advocating for needed policy changes with governmental agencies, such as the FCC.

Smart Walls and Two-Way Radios: ICTs Across the Tohono O'odham Nation

After visiting with Victor, I spent time speaking with Police Chief Gabriel Martinez at the Tohono O'odham Police Department. Like the Yaqui people, the Tohono O'odham people are binational, having lived for millennia within desert and coastal homelands stretching from what is now northwest Mexico through the southwest U.S. As a federally-recognized U.S. tribe, the Tohono O'odham Nation comprises over 4,500 square miles of land located south of Tucson along the U.S.- Mexico border. Indeed, the nation's southern boundary is also the U.S.-Mexico border, a borderline negotiated through the 1854 Gadsden Purchase, when U.S. Ambassador James Gadsden sought completion of a southernmost U.S. transcontinental railroad line, as well as reconciliation of outstanding property and citizenship claims made to American and Mexican settlers during the 1848 Treaty of Guadalupe Hidalgo. Over 150 years later, the U.S. Mexico borderline continues to be a contested space regarding land access, ownership, and citizenship rights. This is especially true for the Tohono O'odham people and their government, the Tohono O'odham Nation.

A few days earlier, I had traveled with Tohono O'odham human rights activist Mike Wilson into the desert to fill water tanks and leave gallons of water for people without passports and green cards who cross illegally into the U.S. through the O'odham deserts rather than through border checkpoints. The Sonoran desert is harsh terrain, arid

and rocky, reaching temperatures of over 100 degrees Farenheit during spring, summer and fall, and dropping to less than 60 degrees at night. Many people perish in these harsh conditions. A number of years ago, U.S. Customs and Border Protection—formerly Immigration and Naturalization Services, and now positioned under the Department of Homeland Security—designed a deterrence technique in which they positioned checkpoints at geographically temperate locations, thereby funneling people seeking to cross without papers through the more harsh desert terrain. The goal of the program was to utilize the harsh desert landscape to deter people from crossing. Yet people still cross. Sadly, the number of people who cross and perish through the Tohono O'odham Nation is highest out of all other points along the U.S. Mexico border.

Mike Wilson is critical of the Tohono O'odham Nation executive leadership for what he explains is their misreading and misuse of tribal sovereignty. (De León & Wilson, 2010) He cautioned me about believing too much in the notion of tribal sovereignty. Mike Wilson is a U.S. Marine veteran, and a former pastor of a local Baptist church. Born and raised on the U.S. Mexico border—internalizing it as a conflict zone for all who cross there—I empathized with his critique. Sitting and working alongside Mike reminded me quite a lot of visiting with my own relatives, cool-headed critical thinkers as familiar with the desert terrain as with the human dynamics that unfold in borderland emergency rooms and at the edges of tribal ceremonial grounds.

I watched the changes in the beautiful desert landscape from the cab of Mike's pick-up as he drove us from one watering station to the next. From an information perspective, I sought evidence of telephone lines, radio towers, satellite dishes, wireless receivers, and the like. As we approached the border, we drove by a building that served

as a base station for U.S. Customs and Border Protection officers working on O'odham land. A large steel tower lay exposed to the sun, unused, in pieces alongside the building. I asked Mike what that piece of equipment was. It was a smart wall tower, an expensive information system designed about a decade before by Boeing. The goal of that smart wall project had been to utilize 360 degree environmental sensors and wireless broadband technology to transmit data about movements in the landscape out to roving unmanned aerial devices and back to border officers working at base stations and at strategic points in the field. Later, as we drove to another watering station, I noted heaped beside a dumpster old television sets, broken telephones, mattresses and kid's toys. I considered how tribal leaders must perceive the life cycle of devices—from design to deployment to recycling and elimination—within the taut geopolitical ecology of their homelands.

Questions of how the sovereign rights of tribes are tested at the boundaries of tribal lands were on my mind as I sat with Chief Gabriel Martinez in his office across from the San Xavier Mission south of Tucson. Chief Martinez described how his officers undergo a critical decision making process when they are alone out in the field and run across groups of individuals involved in illegal activity. There are parts of the Tohono O'odham Nation desert landscape where cell phones don't receive signals. Officers carry short-range radios as a communications back-up. I asked about the systems that they use to share information with authorities from other law enforcement agencies, such as the U.S. Customs and Border Protection officers, the neighboring Pima County Sheriff's Department, and the Tucson Police Department. Chief Martinez described the fusion centers project sponsored by the U.S. Department of Justice.

Fusion centers are strategically located organizations that intake and collocate information from state, municipal, tribal, federal and other law enforcement agencies for the purposes of intelligence analysis. Chief Martinez referenced the infamous case Oliphant v. Suquamish, in which U.S. Supreme Court Justice William Rehnquist decided that tribal courts could not try non-Indians residing on Indian reservations. (1978) The number of non-Indian criminal suspects living on reservations is high. I considered what I know about the way crime and violence regenerates in the U.S.-Mexico border zone, and triangulated to consider the U.S.-Mexico-Tohono O'odham Nation border zone. Truly, American Indians are border crossers. It is central to the Native experience, to exist as kin to an Indigenous people, and yet to also exist as a marginalized subject of a dominant colonial government, a member of a tribe, and a voting citizen of a state and federal government. From an information perspective, I thought about the asymmetries in information-sharing that must occur as tribes seek to make their information systems operable with neighboring municipal, county, state, and federal authorities, the trust that must be involved in making information-sharing decisions, and law enforcement consideration for public safety needs and rights of tribal members and non-Indians living on reservation lands.

Tohono O'odham Nation hosts three casinos within the boundaries of their reservation. Chief Martinez described the work his team does there, watching for criminal activity associated with gaming operations and maintaining public order. With such a large and institutionally diverse landscape to monitor, I imagined Chief Martinez's officers working to uphold public safety at some places laden with robust ICT infrastructure and information flows—such as near the casinos and townships—and at

other places thick with linguistic differences, no cellular and radio service, and regulations obstructing or curbing critical information-sharing—such as at the borderlines and deep in the desert. Each year, during certain seasons, many people in the region, including O'odham people, Yaqui people, Mexican Americans and others, enter into arduous pilgrimages from one mission to another, to family homes, and to other sites of prayer located alongside centuries-old routes from southern Arizona into the Mexican state of Sonora. These pilgrimages are an important aspect of Tohono O'odham spiritual practice and history. Chief Martinez described a communications technique that the public safety officers employ to warn folks on pilgrimage about points of safe passage, sudden thunderstorms, and fire warnings. Listening to Chief Martinez, I came to understand how dispatch centers, fax machines, cellular phones, shortwave radios, Facebook pages, and tribal radio stations playing through the speakers of four-wheel drive trucks ranging through the desert are all part of a flexible system of devices for sharing information critical to maintaining public safety in the remote parts of Indian Country.

In a month's time, I spoke with six more individuals about their projects: Samuel James of KUYI, Hopi radio; Joan Timeche of the Native Nations Institute; Sandra Littletree of the Knowledge River Tribal Librarians Oral History Project; Traci Morris of Native Public Media; and Matt Rantanen of the Southern California Tribal Digital Village Network. With each person I interviewed, I learned more about how uses of ICTs relate to exercises of tribal sovereignty.

KUYI Hopi Radio: Programming to Match the Rhythm of Homeland

Samuel James, the station manager at KUYI Hopi radio, described how the Hopi Tribe set up their own community radio station. The Hopi people are a pueblo people who have resided for millennia in the canyon and desert mesas in what is now the four corners area of New Mexico, Arizona, Colorado and Utah. The Hopi Tribe reservation land is presently located in northeast Arizona—surrounded by the Navajo Nation reservation land—and the tribal government serves Hopi people and Tewa people residing within its borders. Bearing a complex philosophy and spiritual practice, the Hopi people have for generations exercised a communal mode of self-governance deeply rooted in the seasonal rhythms of their homeland. As a federally-recognized tribe, they have also developed a government that interfaces with the Bureau of Indian Affairs and other federal agencies.

When Samuel and I first arranged for a phone conversation, I laughed because we both had to plan to park ourselves in unusual locations where we could receive cellular phone signals. He was heading to a parking lot near a gas station in Hopi where he could receive a signal, and I was sitting in the back of my father's truck in Mesilla, New Mexico, facing northwest. I'd been to Hopi before to visit friends, and was soothed by the blue sky filled with traveling rainclouds, the subtle shapes of the windswept desert floor, and the striking rock mesas. I had seen a hawk dive full speed down the side of a mesa, hunting from cool clear sky to heated rock wall.

It is difficult to express the appreciation for the ecology of a landscape to others. It takes a great deal of deep listening and working within a tribal community to begin to experience the seasonal rhythms in the bones, and to understand the reason for adapting to those rhythms. Samuel described how deejays at KUYI play certain kinds of music at

certain times of the year, in motion with the meanings of the seasons. Edgy or violent music is avoided during the gentle winter months. At other times, deejays select music from other Native peoples, encouraging the local community to open their ears to new sounds from peoples who likewise understand what it is to live in right relation with a homeland. Language learning opportunities are included as much as possible. KUYI personnel seriously discussed the pros and cons of airing tribal council debates during election season. On the one hand, the radio could provide critical elections information to community members—especially homebound elders—who couldn't attend the debates in person. On the other hand, that kind of self-governance information is a private matter for tribes. Messages heard over the radio—separated from body language, context, and visual cues—could be misinterpreted or misunderstood. The radio station did not want to be perceived as 'airing the dirty laundry' of internal council matters.

Samuel's explanations reminded me of Victor Wright's decisions to train his deejays not to play certain kinds of Yaqui music at certain times during the year long ceremonial cycle. Adapting ICTs to the ecology and internal rhythms of tribal homelands requires respect for language, ways of knowing, tribal privacy and security, and modes of self-governance. The Indigenous Information Research Group had been considering this dimension as one of those that most distinguishes Native uses of ICTs: in many Native communities, certain kinds of content—especially content that is sacred in nature, and content that threatens the security of private tribal self-governance operations—may not be recorded and broadcast across any form of media. In many Native communities, cellular phones and recording devices of any kind, including sketchpads, cameras, audio and video recorders, are prohibited on ceremonial grounds, especially during moments of

prayer. Our group's discussions of this issue contributed to my colleague Miranda Belarde-Lewis's investigation of YouTube as a space for sharing videos of sacred and social Native dances. (Belarde-Lewis, 2011) I began to think about how the notion of access must differ for Native peoples, who not only must contend with the poor quality content that exists about Native peoples, but who must also contend with the policies and geography of their reservation, as well as those of the surrounding tribal, municipal, county, state and federal governments. The FCC decision to adjust spectrum licensing to fit the shape of reservations, and not just in the shape of a block of cubic miles, does a lot for giving a tribe access to the AM/FM radio spectrum coursing through their homelands. It is up to the project personnel to decide how to make appropriate use of that spectrum within the geopolitical constraints of the reservation.

The Native Nations Institute and Knowledge River: ICTs for Sharing Knowledge

Acquiring the devices and setting up a system for sharing quality information is only the beginning, though. The need for quality information within a Native or tribal community drives the decision to utilize ICTs. This became clear to me as I spoke with Joan Timeche, director of the Native Nations Institute located at the University of Arizona in Tucson. Since 2001, the Native Nations Institute has served as a research and policy institute focusing on issues of self-determination, self-governance and economic development for tribes. One of their main goals is to disseminate research results, policy implications, and lessons from leaders in Indian Country back to tribal leaders for the purposes of informed decision-making. The Native Nations Institute leaders participate

each year in the Honoring Nations award program through the Harvard Institute on American Indian Economic Development. When we met, Joan handed me a copy of the past year's Honoring Nations program. I scanned the booklet and quickly noted how a majority of the award-winning programs were projects focused on building information systems to circulate quality information specifically for the purposes of upholding the operations of sovereign tribal governments.

The Mille Lacs Band of Ojibwe utilized data about the local ecology to write the Minnesota 1837 Ceded Territory Conservation Code, regulating subsistence hunting and fishing. The code has been incorporated into regional district and appeals courts, resulting in increased understanding between tribal members and non-tribal neighbors who hunt and fish in the same terrain. The Coquille Indian Tribe worked with the Smithsonian Institution and the University of Oregon to design the Southwest Oregon Research Project, an archive of cultural, historical, and linguistic documents pertaining to the tribal peoples of the area. Copies of documents were given to regional tribes during potlatches, contributing to a regional restoration of knowledge of Native peoples. Leaders within the Gila River Tribe needed a way to provide affordable and reliable phone service for their people residing on the reservation in southern Arizona. They started Gila River Telecommunications, Inc., a regional phone and Internet service provider for tribal residents and neighbors. Different tribes use geographic information systems (GIS) to track wildlife, water quality, and land uses for tribal land management. Tribes create systems for protecting pottery, weavings, petroglyphs, sacred dances, and artworks and aligning tribal, state, and federal policies in this regard. Tribes utilize ICTs toward language revitalization, including the abovementioned radio stations, online learning

modules, and digital storytelling tools. Almost all of the honorees in the Honoring Nations program included a dimension of preserving lands for youth and educating future generations.

After meeting with Joan, I met with Sandra Littletree of the University of Arizona Knowledge River Program, which supports Latino and Native American students seeking a degree in librarianship. Faced with a scarcity of literature and needing a way to teach students about their chosen profession, Sandra partnered with friends and colleagues in the American Indian Librarians Association and the New Mexico Tribal Libraries Foundation to film long-time tribal librarians speaking about their experiences, and posted these in an online oral history archive. At the time of my visit, Native Nations Institute personnel were also preparing to launch a subscription database comprised of video lectures by leaders in Indian Country speaking on a range of matters pertinent to dimensions of tribal self-governance. More than about collecting data, these and aforementioned information systems were designed to pass on Native leaders' ways of knowing.

Speaking with Joan helped me to understand how tribes develop information systems for collecting local data that can be used for local-decision making, and for building intergenerational knowledge. Inevitably, the decisions that tribal leaders make interface with the decisions and practices of neighboring governments. Of particular interest to me were those information systems that were designed specifically for intertribal and intergovernmental information-sharing. But of greater interest were those systems that focused on providing Internet access, in particular, as every individual I spoke to referenced not only the lack of quality information for tribal communities, but

also mentioned in passing the lack of basic phone, cellular and Internet service in many tribal homes.

Indeed, meeting with Traci Morris of Native Public Media, and then later, with Matt Rantanen of the Southern California Tribal Digital Village Network, helped me realize the critical importance of reliable and affordable Internet service within reservation communities.

I had entered the field that summer understanding that information was important for the decision-making process of tribal leaders. I came to understand that the cultural sovereignty of a people relates to the ability of elders and experienced members to share ways of knowing with younger members. I saw how tribal geopolitics—political boundaries, physical geography, seasonal cycles, self-governance procedures—shapes uses of ICTs. I recognized the importance of relationship-building and partnerships, as all of the projects I learned about began with a few leaders sharing ideas, and then tapping into their network of friends and colleagues to find individuals to implement ICT projects. Project leaders possessed a unique skill set, capable of managing daily operations, advocating in local, state, and national arenas, as well as listening to and working with tribal leaders to articulate the long-term vision for the ICT project within the community. I also began to see how the content streaming across ICTs contributes to the local mode of self-governance, as political issues are debated across these channels. Project leaders continuously assess community needs, and think about ways to apply technical know-how to meet those needs.

Native Public Media: Broadband Internet Shaping Creativity in Indian Country

I met with Traci Morris, at the time, director of operations at Native Public Media, in a busy coffee shop near downtown Phoenix, Arizona. As far as I could tell, each visitor to the coffee shop had a smart phone. This was a far cry from sitting in the back of my father's truck trying to receive a cellular signal near the Rio Grande, and far removed from the U.S.-Mexico-Tohono O'odham Nation borderline, where the smart wall sits in pieces and a braying generator lights all who cross through the border fence at night. A long-time advocate for Native community radio, Traci was adamant about the impacts that radio can bring to Native communities. But she was more adamant about the impacts that broadband Internet can bring to Native communities. A regular media advocate in Washington, D.C., Traci assured me that people in Congress don't understand what it's like to be in a place with no cellular or landline phone service, such as in Indian Country. She described for me what it's like to invite a senator to visit a reservation, and to watch his body language as he realizes he receives no reception on his cellular phone, and that if he isn't receiving reception, no one else is either. She also said many people don't quite understand the implications of broadband Internet for reshaping work and creativity in Indian Country. She described the digital dome at the Institute for American Indian Arts, a 360-degree digital recording space where students record Native dances and make films. What were the implications of this kind of technology with regard to the Native art of storytelling and other creative expressions? What kind of knowledge could be archived for future generations?

As an information scientist, I followed Traci's line of thought completely. The smart wall is a broadband technology. The Tribal Librarian's Digital Oral History

website runs at broadband speeds. The video lectures housed in the Native Nations Institute leadership database soak up a great deal of bandwidth. I wondered how many people in Hopi or in my own tribe have sufficiently fast Internet speeds in their homes or workplaces to be able to access this kind of content. During my fieldwork, my ability to convene with the Indigenous Information Research Group depended on my ability to drive to a café or a hotel with a connection fast enough to support videoconferencing. I wondered what it would take to give every tribal leader in Indian Country an affordable smart phone and plan.

Already attuned to the presence of digital devices, I began to conceptualize Indian Country as a vast expanse of geopolitically interrelated landscapes peopled by leaders sharing information about their tribes across a range of digital devices: smart phones, laptops, workstations connected to server rooms connected to broadband towers connected by fiber optic cables to nodes buried alongside nearby interstate highways. There are dark spots in Indian Country, where no one receives any service due to the technical limitations of the devices. There are grey spots in Indian Country, where the elders have determined that no recording devices of any kind may be used out of respect for ceremonial rhythms and the sacred landscape. There are places in Indian Country that are extremely wired, where youngsters connect with each other on X-Box Live, grandmothers play the slots at the casinos, and young activists update anti-colonial memes on their Facebook timelines. Prior studies had been positioning Native Americans as digital have-nots. (Casey, et al, 1999; Dorr & Ackroyd, 2001; Dyson, et al, 2007; Gordon, 2001; Mander, 1991; Office of Technology Assessment, U.S. Congress, 1995; Riley, et al, 1999) Through listening to the experiences of those working with ICTs in

Indian Country, I saw that this was not the case, but rather, that like everything else that occurs within the boundaries of reservations, decisions about ICT infrastructure and uses must be negotiated within the local geopolitical terrain.

Within my own ways of knowing, cultivated from having grown up going to ceremony with my family in Old Pascua and running around the deserts surrounding Tucson and the river valley of Mesilla, New Mexico, I had come to see each moment as a blossoming, an unfolding within a greater dynamic of endless creation. I had read the writings of Vine Deloria, Jr. and Martin Heidegger alike on technology as a point of becoming, when human hands bring into being a system designed for the purposes of human expression. (Deloria, 1999; Heidegger, 1977) But where Heidegger wrote about the technological domination of the natural landscape by a superior race of men, Deloria wrote about all human creativity as acts within this endless cosmic creation, an insight into which Native peoples bear a particular understanding by virtue of their spiritual relationships with the landscape and relation to all of the beings therein. I began to distinguish ICTs in Indian Country as serving purposes focused on Native peoples' expressions of their cultural sovereignty. Likewise, there are many examples of information systems in Indian Country designed for the purposes of supporting the operations of tribes. However, none of these can function without the availability of affordable and robust broadband Internet.

1.1

'THE MASTER'S TOOLS WILL NEVER DISMANTLE THE MASTER'S HOUSE'

Audre Lorde

I agreed to take part in a New York University Institute for the Humanities conference a year ago, with the understanding that I would be commenting upon papers dealing with the role of difference within the lives of american women; difference of race, sexuality, class and age. For the absence of these considerations weakens any feminist discussion of the personal and the political.

It is a particular academic arrogance to assume any discussion of feminist theory in this time and in this place without examining our many differences, and without a significant input from poor women, black and third-world women and lesbians. And yet, I stand here as a black lesbian feminist, having been invited to comment within the only panel at this conference where the input of black feminists and lesbians is represented. What this says about the vision of this conference is sad, in a country where racism, sexism and homophobia are inseparable. To read this program is to assume that lesbian and black women have nothing to say of existentialism, the erotic, women's culture and silence, developing feminist theory or heterosexuality and power. And what does it mean in personal and political terms when even the two black women who did present here were literally found at the last hour? What does it mean when the tools of a racist patriarchy are used to examine the fruits of that same patriarchy? It means that only the most narrow perimeters of change are possible and allowable.

From: Audre Lorde (1983), 'The Master's Tools Will Never Dismantle the Master's House', pp. 94–101, in Cherríe Moraga and Gloria Anzaldúa (eds), *This Bridge Called My Back: Writings by Radical Women of Color* (New York: Kitchen Table Press).

The absence of any consideration of lesbian consciousness or the consciousness of third world women leaves a serious gap within this conference and within the papers presented here. For example, in a paper on material relationships between women, I was conscious of an either/or model of nurturing which totally dismissed my knowledge as a black lesbian. In this paper there was no examination of mutuality between women, no systems of shared support, no interdependence as exists between lesbians and women-identified women. Yet it is only in the patriarchal model of nurturance that women 'who attempt to emancipate themselves pay perhaps too high a price for the results', as this paper states.

For women, the need and desire to nurture each other is not pathological but redemptive, and it is within that knowledge that our real power is rediscovered. It is this real connection, which is so feared by a patriarchal world. For it is only under a patriarchal structure that maternity is the only social power open to women.

Interdependency between women is the only way to the freedom which allows the 'I' and 'be', not in order to be used, but in order to be creative. This is a difference between the passive 'be' and the active 'being'.

Advocating the mere tolerance of difference between women is the grossest reformism. It is a total denial of the creative function of difference in our lives. For difference must be not merely tolerated, but seen as a fund of necessary polarities between which our creativity can spark like a dialectic. Only then does the necessity for interdependency become unthreatening. Only within that interdependency of different strengths, acknowledged and equal, can the power to seek new ways to actively 'be' in the world generate, as well as the courage and sustenance to act where there are no charters.

Within the interdependence of mutual (non-dominant) differences lies that security which enables us to descend into the chaos of knowledge and return with true visions of our future, along with the concomitant power to effect those changes which can bring that future into being. Difference is that raw and powerful connection from which our personal power is forged.

As women, we have been taught either to ignore our differences or to view them as causes for separation and suspicion rather than as forces for change. Without community, there is no liberation, only the most vulnerable and temporary armistice between an individual and her oppression. But community must not mean a shedding of our differences, nor the pathetic pretense that these differences do not exist.

Those of us who stand outside the circle of this society's definition of acceptable women; those of us who have been forged in the crucibles of difference; those of us who are poor, who are lesbians, who are black, who are older, know that *survival is not an academic skill*. It is learning how to stand alone, unpopular and sometimes reviled, and how to make common cause with those other identified as outside the structures, in order to define and seek a world in which we can all flourish. It is learning how to take our differences and make them

strengths. *For the master's tools will never dismantle the master's house.* They may allow us temporarily to beat him at his own game, but they will never enable us to bring about genuine change. And this fact is only threatening to those women who still define the master's house as their only source of support.

Poor and third world women know there is a difference between the daily manifestations and dehumanizations of marital slavery and prostitution, because it is our daughters who line 42nd Street. The Black panelists' observation about the effects of relative powerlessness and the differences of relationship between black women and men from white women and men illustrate some of our unique problems as black feminists. If white american feminist theory need not deal with the differences between us and the resulting difference in aspects of our oppressions, then what do you do with the fact that the women who clean your houses and tend your children while you attend conferences on feminist theory are, for the most part, poor and third world women? What is the theory behind racist feminism?

In a world of possibility for us all, our personal visions help lay the groundwork for political action. The failure of the academic feminists to recognize difference as a crucial strength is a failure to reach beyond the first patriarchal lesson. Divide and conquer, in our world, must become define and empower.

Why weren't other black women and third world women found to participate in this conference? Why were two phone calls to me considered a consultation? Am I the only possible source of names of black feminists? And although the black panelist's paper ends on an important and powerful connection of love between women, what about interracial co-operation between feminists who don't love each other?

In academic feminist circles, the answer to these questions is often 'We did not know who to ask.' But that is the same evasion of responsibility, the same cop-out, that keeps black women's art out of women's exhibitions, black women's work out of most feminist publications except for the occasional 'Special Third World Women's Issue'[1] and black women's texts off of your reading lists. But, as Adrienne Rich pointed out in a recent talk, white feminists have educated themselves about such an enormous amount over the past ten years, how come you haven't also educated yourselves about black women and the differences between us – white and black – when it is key to our survival as a movement?

Women of today are still being called upon to stretch across the gap of male ignorance and to educate men as to our existence and our needs. This is an old and primary tool of all oppressors to keep the oppressed occupied with the master's concerns. Now we hear that it is the task of black and third world women to educate white women, in the face of tremendous resistance, as to our existence, our differences, our relative roles in our joint survival. This is a diversion of energies and a tragic repetition of racist patriarchal thought.

Simone de Beauvoir once said: 'It is in the knowledge of the genuine conditions of our lives that we must draw our strength to live and our reasons for

acting.' Racism and homophobia are real conditions of all our lives in this place and this time. *I urge each one of us here to reach down into that deep place of knowledge inside herself and touch that terror and loathing of any difference that lives there. See whose face it wears.* Then the personal as the political can begin to illuminate all our choices.

NOTE

1. *Conditions* of Brooklyn, NY is a major exception. It has fairly consistently published the work of women of color before it was 'fashionable' to do so. [editor's footnote]

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What Is at Stake with Decolonizing Design? A Roundtable

Tristan Schultz, Danah Abdulla, Ahmed Ansari, Ece Canlı, Mahmoud Keshavarz, Matthew Kiem, Luiza Prado de O. Martins and Pedro J.S. Vieira de Oliveira

ABSTRACT This roundtable was conducted by the eight founding members of Decolonising Design Group in October 2017, using an online messaging platform. Each member approached design and decoloniality from different yet interrelating viewpoints, by threading their individual arguments with the preceding ones. The piece thus offers and travels through a variety of subject matter including politics of design, artificiality, modernity, Eurocentrism, capitalism, Indigenous Knowledge, pluriversality, continental philosophy, pedagogy, materiality, mobility, language, gender oppression, sexuality, and intersectionality.

KEYWORDS: Design Studies, decoloniality, ontological designing, pluriversality, Global South

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Matthew Kiem

Let's begin by discussing what each of us understands to be at stake in the idea of "decolonizing design." In some of our private discussions we have noted that the concept of "decolonization" is gaining currency within the academy generally and in various ways throughout the field of design. While I am sure most of us would agree that a growing awareness of and interest in the issues associated with coloniality is generally welcome, there is nevertheless a lot that hinges on the way this occurs. Our conversations have included, for instance, a concern with the tendency of political terms such as "decolonization" to be hollowed out by a pluralistic mode of engagement (see Fry 2011).

Academics and designers are adept at mimicking the representational dimension of movements – "political or otherwise" – without necessarily generating or supporting the substantive changes that political concepts are designed to bring about. This is less a problem of individual failing than it is design of the institutions that we work for. In most academic contexts, it is all too easy for people who possess a great deal of cultural capital to make the token gesture of learning a new set of terms or adding a few different texts or examples to the curriculum. While change must begin somewhere – and token inclusion is perhaps better than no inclusion at all – the problems connected to the concepts of modernity/coloniality/decoloniality and, I would add – invoking Tony Fry's term – defuturing, demand a sense of purpose and dedication that implies a far more radical and substantive redesigning of the dominant cultures of design practice, research, and education than most people have been able to register or enact.

This problem is related to Cameron Tonkinwise's (2015) critique of the proliferation of qualified versions of design, which prompts us to consider the utility of articulating the kind of difference represented in "decolonizing design." With this in mind, it is important to clarify how "decolonizing design" aims at something quite different from an additive inclusion into Design Studies as it already exists. By my reading, "decolonizing design" is not a "new" or an additional form of design but a political project that takes design as such – including its theorization – as both an object and medium of action. Considering this, it would be a mistake to assume that "decolonizing design" represents some kind of service offering, as though the field could undergo a procedure by which the "bad" colonial bits could be isolated and removed without disturbing the core business of what "design" and "Design Studies" is supposedly all about. In this sense, "decolonizing design" is not a question of improving the status quo but a question of learning to differentiate between designs that facilitate the productivist drive towards devaluing and appropriating human and non-human natures, and designs that facilitate a process of delinking and redirection into other modes of being/becoming.

As writers such as Angela Mitropoulos (2006) and Walter Mignolo (2011) have said in their own ways, the political substance of this lies less in the content of any discussion – a question of saying or including the right things – than in the terms under which the discussion is

conducted. In other words, it is a question of who controls, profits from, or is protected (or not) by the ways in which intellectual and other forms of re/production and consumption are organized. This introduces an imperative to assert the difference of "decolonization" as a specific and fundamentally radical political project vis-à-vis the "business as usual" of the design and academic professions. Frantz Fanon (1971, 27) for one was very clear on this point: insofar as it sets out to change the "order of the world," decolonization is "a programme of complete disorder," that is to say, something that seeks to challenge, upset, and reconfigure modern/colonial institutions rather than fit comfortably within them. The imperative here is not so much to defend the singular or ahistorical "truth" of "decolonizing design" but, rather, to design meaningful material-symbolic change that is neither pacified nor disabled by the colonial designs of academy.

Ahmed Ansari

I would agree with Matt insofar as "decolonizing design" is primarily a political project, but then all projects and designs are, even when they claim to be apolitical or politically neutral. However, I would like to draw attention to the fact that we are engaged in this project *as designers*, and therefore any engagement with articulating a relation between decoloniality and design necessitates articulating the relation in terms both *poietic* and *praxical*. For me, this means engaging with the nature of what design practice helps bring into being. Design brings into being new ontologies and ontological categories and their corresponding subjects and subjectivities. This occurs through the construction of artifice and artificiality, which is inextricable from the fact of our humanity, and is now both the medium we live in, determining the nature of our existence on the planet, and the primary determinant of our horizons insofar as we interpret our reality in the present and dream about possible and plausible realities in our futures (Arendt 1958; Dilnot 2015).

In the canon of decolonial theory (Mignolo, Quijano, Grosfoguel, etc.), the current incarnation of the project of continued Western coloniality over the rest of the globe through the mechanisms of globalization and neoliberalism, there is little attention to the development of *artifice as a necessary condition of modernity*. In other words, decolonial theory lacks any substantial theoretical reflection on the history of the artificial as it developed after the Industrial Revolution from regionally bound, culturally specific technical trajectories into a global technical system; the role that artifice has played in giving shape to and sustaining and perpetuating forms of colonial power; and the nature of the artificial especially as it relates to ontological differentiation. Apart from Arturo Escobar's (2012) *Notes on the Ontology of Design*, Mignolo, Quijano, and other decolonial scholars have instead traced histories of power. As a result, designers have very little to go on in the way of thinking about design's relation to the problem of modernity.

I would add that there has been some considerable work on modernity, artificiality, and on specific manifestations of colonial power through artifice in academic disciplines like material culture, anthropology, science and technology studies, and development studies. But design discourse has done little to incorporate these accounts. As I see it, the present project of decolonizing design requires a threefold move. *We first need an account of the artificial and of the condition of artificiality*, an account which can explain the different sociotechnical trajectories that various civilizations exhibit up until modernization through colonialism and globalization. We must then *situate this account in relation to the problem of modernity* and the modern world system, in order to develop it into something that explains what the technical foundations of modernity are. Finally, we can turn to *the consideration of other, possible artificials* – of alternatives to the systems of technics we have today. This is the nature of the project that I have undertaken over the past few years.

This task cannot be undertaken solely through the lens of contemporary Western thought, even if this lineage of thought has problematized the very modernity it birthed. It must be thought through looking from the lens of the more marginal perspectives of: the *ex-colonized* (i.e. new, hybrid subjects that so eagerly embrace globalization); the *extra-colonial*, (i.e. those rare Indigenous peoples that live on the outskirts of the world-system and tenaciously preserve ways of being that have otherwise died out in the world); and the *subaltern castes* (i.e. those who have been "left behind" by modernity, never sharing in the privileges and spoils of becoming modern while nevertheless forming the living reserve that fuels the mechanisms of the neocolonial world-system). To think beyond modernity from within modernity is not an easy task. But it is only when we incorporate these marginal perspectives into a reflection on the nature and history of modernity and of artifice to try and understand how it is that plural cultures were drawn into the binary of center and periphery, that we can then begin to tackle the productive task, from each of those peripheries, of designing plurally again.

Tristan Schultz

I too have noticed the currency of the term "decolonizing" being reduced to a hollow gesture. I fear it is traveling in a similar direction to the way the term "sustainability" was co-opted for neoliberalist means in design. In the last few years, decolonizing practices and movements have proliferated, with some fitting the kind of decolonizing design praxis I would describe as a political ontological design of plurality for sustainment, and others not. The latter are, at best, a token gesture of learning a new set of terms. They perpetuate neoliberal globalizing and homogenizing ambitions by pandering to an ontological elimination design event of the technological colonization of imagination. Because of the industrialization of memory through socio-communicative digital technologies, people's abilities to imagine being otherwise is being

eliminated (Escobar forthcoming; Fry 2012, 2017; Stiegler 2009; Virilio 2008, 2012).

There is currently not enough critical reflection on this in the interrogation of coloniality in design, nor is there enough self-reflection on the techno-mediating methods through which "decolonizing" design is explored. In late 2016, I collected a list of invites and call for papers that proposed decolonizing modernism, theology, computing, technology, the arts, love, gender, and, of course, "all things." There have been several summer schools, book series, and efforts to decolonize design thinking too. Of course, our own platform, decolonizing design, is part of this phenomenon.

Arturo Escobar (2017) writes that the ontologically designing techno-mediation of worlds has now become a question of survival for the autonomy of all those people who never signed up to "being" culturally commodified universalized hyperrealities (Virilio 2012). This leads me to wonder if we might use design education that takes seriously the destruction of biophysical worlds (sustainable design, eco design) as a model for design education that takes seriously the destruction of human lifeworlds and autonomy from excessive techno-mediation. Can design education take an ontological turn to squarely focus on techno-mediations as they relate to designing autonomy and plurality and to futuring? Decolonizing design, as Matt suggests, demands an urgent recognition of the threat defuturing techno-mediation poses to our sheer existence as a species (Fry 2017). All this amounts to a task no smaller than locating how designers can *be* decolonized, enabling an aptitude to prefigure, project, and future *being* human. It invokes a politics no smaller than the Enlightenment, even though the hegemonic ambitions of the Enlightenment are precisely what decoloniality must reverse.

This connects with Ahmed's "threefold move" proposition. But I would say that to situate problems in relation to modernity and consider alternative systems to the technics we have today requires breaking free of the rationalistic Cartesian worldview that colonizes all of "our" minds and places us on a spectrum of ontologically conditioned modern world system beings. As Boaventura de Sousa Santos (2014) has noted, we are facing modern problems for which there are no modern solutions. We lack the ability to organize thoughts in such a way that we can comprehend, in different modalities of temporal and spatial scale, our situatedness amongst a maelstrom of ontological plurality. Even worse, we designers with our designerly tools, methods, and mapping techniques risk *un-mapping* plurality. What I mean is we risk doing the reverse of what Escobar (2015, 15) calls the mapping of "multiple transition narratives and forms of activism … veritable cultural and ecological transitions to different societal models, going beyond strategies that offer anthropocene conditions as solutions," by mapping social messiness into rationalist Cartesian and instrumental typologies of convenient commensurability to modern world-system minds. Decolonizing design first requires unlearning defuturing mapping traps in order to learn mapping relational worlds. This relates to Matt's point

about "learning to differentiate" relationally. As Auntie Mary Graham (2017) speaks of Aboriginal relationality, from where she is located, as a Koombumerri Aboriginal Elder (Australia), there is no Aboriginal equivalent to the Cartesian notion of "I think therefore I am" but, if there were, she says, it would be *I am located therefore I am*. For Mary, location – or more poignantly Place – equals Dreaming. There are multiple Places so there are multiple Dreamings, so there are multiple Laws that equal multiple Logics that equal multiple Truths. All Perspectives (Truths) are valid and reasonable. This is not relativism because there is still judgment emanating out of a locality in a reciprocal relation with land, place, ethics, balance, and autonomy. For me, this intelligible Aboriginal philosophy is 65,000 years older than the core condition Tony Fry (2009) argues for – a limitation of freedom within sustainment. Mapping and amplifying the futuring and eliminating the defuturing techno-mediations and socio-technical systems performing on these kinds of Aboriginal relational worlds could be an immensely significant contribution to decolonizing design because it is a contribution to futuring humans (in all ontological pluralities) and the biophysical worlds upon which humans depend.

Matthew Kiem

Tristan mentions the significance of distinguishing the concept of plurality from both relativism and pluralism. This strikes me as a key part of what decoloniality means as a mode of designing. In this regard, I can appreciate something of Ahmed's dissatisfaction with how decolonial theorists have understated the significance of technics, particularly as there is a specific way in which a designerly interest in the politics of material-symbolic configurations forces important and inescapable questions of decision, direction, and relation. Indeed, I have often wondered about the emphasis that decolonial thinkers have given to questions of epistemology over ontology. I do not want to overwork this distinction – it is after all but one of many ways of organizing (designing) a line of questioning – but in the context of my interest in thinking about ontological designing in light of decolonial thinking, it does strike me as significant.

The largely ambivalent and sometimes hostile treatment that the concept of ontology receives in the work of such thinkers as Dussel (2003) and Maldonado-Torres (2007) is at least in part related to the strong stance that Levinas took against aspects of Heidegger's thought that Levinas understood to be indivisible from Heidegger's fascist politics. Connecting the question of theory to politics and personal relations in this way does nothing to undermine the significance of what is it stake for either Levinas, Dussel, or Maldonado-Torres but, on the contrary, provides a clue to what they are trying to accomplish through the critique of concept that has otherwise been significant to theorists of ontological designing (Willis 2006, n.d.), decoloniality (Escobar 2012), and Indigenous design philosophy (Sheehan 2004).

In the face of these differing positions on some of the philosophical fundamentals, I have found it useful to consider plurality as a materialist concept, that is to say, that plurality "is" and affects (designs) "us" in excess of the representational terms through which it is thought (Deleuze 1995, Sheehan 2004). This is not to say that ideas are not important but that their agency is best understood in material terms (Mellick Lopes 2005; Rooney 1989). Whereas the philosophical idealist sees danger in the expression of a difference that refuses to fit within (their materially specific) mode of configuring representational thought, a materialist conception of plurality shows that political contestation is grounded in the ways that things and relations are designed (Sheehan 2004). While the question of distinguishing colonizing designs from decolonizing designs is necessarily a question of situational and perspectival discernment, what I am trying to suggest here is that: 1) situational epistemologies/ontologies are relational, not relativist; and 2) the question of the pluralism is an issue of anti-relational (colonial) designing that can be addressed by learning to discern the presence and possibility of designs for relational plurality. To my mind, these are the terms by which the works of Indigenous philosophers such as Graham and Sheehan show up as expert expressions of designing otherwise and beyond the coloniality of knowledge, as opposed to having their work rendered as exoticized targets of the pluralist desire for inclusion, alias assimilation.

Ahmed Ansari

Matt's observation that ontological questions are received with somewhat more suspicion in Latin American scholarship is interesting and, perhaps regionally specific – I can certainly trace subtle but important differences between the scholarship coming out of Central and South America and, say, South and East Asian authors. I do think that the very different ways in which colonialism arrived and then perpetuated between various regions of the world have led to very different framings of the problem of coloniality/modernity. This means that there is no *one* approach to a decolonial politics but, as both of you have pointed out, a plurality, many possible politics.

For example, unlike the first *conquistadores* in Latin America, who arrived as military men backed by Spanish guns, cannons, and clergy, the British and Dutch arrived as traders not conquerors in India, China, or the Southeast Asian kingdoms. Nor did colonial conquest proceed in the same way, one of the key differences being that there were no mass genocides and subsequent displacements by white settlers or extensive interbreeding between the settler and local populations (subsequently, one finds racial hierarchies based on different genealogies in Latin America, whereas these are noticeably absent in South Asia, where ethnicity, religion, and caste still dominate social hierarchies).

One can theorize that this form of total rupture, this total break from the Pre-Columbian past, has influenced the way that modern Latin American postcolonial identity is framed and constructed. To drive the

point home, colonialism and modernity mean different things to different peoples and cultures, and therefore lead to different questions, concerns, and politics. The *what you can reach to* as the means of constructing alternatives is also regionally and historically contingent: can you reach back into a precolonial past, or is the rupture so great that this is impossible; are there Indigenous ways of being in the present that you can study, or have those cultures ceased to exist? It is therefore imperative, I believe, that designers committed to a decolonial politics do the work of delving into their own civilizational histories.

Moreover, it is worth noting that, in South and East Asian scholarship, at least, both questions of ontology and technics have received a great deal of attention, partly as a history of responses to European continental philosophy, and particularly in the early twentieth century, the German continental tradition, the influence of which on pan-Asian thought has been, I think, greatly overlooked and underrated (for example, Tetsuro Watsuji and Nishado Kitara and the Kyoto School were responding directly to Heidegger in their theorizing Japanese phenomenology and technics). Like I've emphasized before, it's not that this work is missing – it is that it has received scant attention, especially within the community of design historians and Design Studies scholars, and this is because we do not have the equivalent of the highly specialized scholars in the humanities who can work in multiple languages and immerse themselves in the histories and texts of different cultures.

This has always been one of the great failures of design history and theory – unless both can reform themselves as disciplinary practices, training a new generation of scholars who will be able to recover, derive, translate, and build canons that aren't Anglo-European, I fear that both design history and Design Studies will continue to be severely constrained in their ability to offer useful prescriptions to feed into contemporary practice. As Clive and Tony have pointed out in *Design and The Question of History*, design schools today only teach token history courses that focus on individual movements and their aesthetics rather than trying to build a nuanced understanding of how modern technical systems came to mold and shape modern humans (Dilnot, Stewart, and Fry 2015). It is therefore no surprise that design practice today is like a headless chicken, flailing about, trying to reconcile its own structural complicity with mechanisms of the modern world-system with the urgency of dealing with the monsters it has helped birth.

I would modify their assessment of the present situation by further stating that practice is doomed to fail because the horizons of what it knows are neither deep enough nor wide enough, i.e. it does not go far enough back in time, nor does it span space and place. Design practice has no alternatives because it lacks the very thing that makes alternatives possible: the understanding of historical and contextual difference. This is, in part, because of the failure of Design Studies and design history in both informing practice as well as in widening, deepening, and critiquing its horizons. We need to think beyond design practice *to what it can be other than what it is*, but we cannot do this

without a massive shift in making history and theory relevant again, and in decolonizing Design Studies and design history.

Danah Abdulla

Matt and Tristan mention the risk of decolonizing design becoming just another design descriptor and following the same route as sustainability. This is important. Several months ago, while discussing my involvement with Decolonising Design, someone said to me "I'm going to decolonize my breakfast, it's a word you can use in front of anything." The scene reminded me of a running joke we had in graduate school when everyone was using the word "curate," and one of my colleagues once told me he was going to "curate" his breakfast. Are we at the point where decolonizing is used as lightly as "curate?" Has the term become some meaningless buzzword that can be thrown in front of anything, emptying it of its urgency?

Our task is to make sure people understand decoloniality for what it is: a subversion and transformation of Eurocentric thinking and knowledge; a knowledge produced *with* and *from* rather than *about*. Why then is this term not serious for others? I would like to question this. The "doing good" movement in design (social design, design activism, humanitarian design, etc.) has brought about an important questioning for designers and an interesting starting point, but has done very little in the way of transforming design education, thinking, and practice. Despite these efforts and the newfound importance attached to design, designers often remain uncritical service providers, and design itself part of a competitive business strategy. The "doing good" movement has contributed to what I call the morality aesthetic – a "style" born out of corporate social responsibility and conscious consumption. It means Adidas invites you to break the status quo, Ray Ban wants you to pitch your world-changing ideas in their #Campaign4Change, and Doc Martens calls on you to #Standforsomething. Other brands are jumping on the moral purity bandwagon through action hashtags and preachy copy. Like Tristan, I fear that decolonizing design is going in this direction and becoming a synonym for "improving things."

The morality aesthetic risks simplifying decoloniality and stripping it of its criticality. Just imagine: "The Decolonizing Design Toolkit" (featuring Venn diagrams, bite-size lines of inspiration, and witty one liners, set in Champion and Bryant and poppy colors) provides a step-by-step method on how to decolonize design. Or: "Now you too can Decolonize Design in six weeks! Sign-up to our new class online." Or: "Announcing a two-week summer school where designers can decolonize their designs. Location: an independent art college. Price: £2,000 without accommodation or travel." We must be careful not to move into what Tuck and Yang (2012, 3) call the "too-easy adoption of decolonizing discourse (making decolonization a metaphor)."

The danger of decolonization becoming a metaphor is that it will be rendered obsolete. In the Global North, and specifically in the UK, most

universities claim that statistically what they term "Black Asian and Minority Ethnic (BME)" students underperform. Some argue for diversifying the content, while most attempt to address the issue through more tutorials and face-to-face time. However, the mere token inclusion, as Matt says, is not addressing the causes of issues. Why are these students not performing as well as others, and why do they fail to connect with the content? It is not only a content issue, but also a matter of *who* is teaching and *how*. Universities should not only look at their content, but address their hiring practices by recruiting faculty that better represents the students.

The morality aesthetic is now being implemented in design programs and design practice across the Global South. In the Arab region for example, largely middle-class design students are looking to "serve" the needs of poor communities composed of people with very different backgrounds from their own, or designing for refugees, where countries like Lebanon and Jordan have over 1 million refugees living there. Designers aim to provide a "voice" for the disenfranchised, using aid discourse, and maintaining dominance over the production of knowledge by using these communities for their school projects. These ideas and methods, disguised as "universal" have traveled, carrying with them the structures of Western thinking, and continuing to reproduce the cycle where the Westernized universities are reliant on knowledge produced elsewhere. The Westernized university features the same curriculum, the same authors, and the same disciplinary divisions that dominate universities in the West. These structures remain unquestioned: as Grosfoguel (2013) says, they become "commonsensical." This unquestioning means ideas are copy-pasted into a curriculum where knowledge and truth are masked as universalism, defined by a canon composed of works of males from five Western countries (Grosfoguel 2013), that represents 12 percent of the world's population. This is most clearly illustrated in the divisions of art history courses where Westernized universities located in Arab countries have course divisions such as "Islamic Art" and "History of Modern and Contemporary Art." Within design, we see the differentiation between "Typography" and "Arabic Typography." But are these Muslim cultures, beliefs, and institutions, as Sami Zubaida (2011) asks, so alien that they require special study and understanding? Why, then, is there a course in "Arabic Typography" or "Islamic Art" within a university located in the Arab world? Why is it not simply "Typography" or "Art History?"

I propose that to decolonize, we begin in the Westernized university, where we can begin to think of an epistemic pluriversality rather than a universal set of solutions. As Ahmed mentioned, we can not only "look through the lens of contemporary Western thought." We need to take the epistemic traditions of the Global South seriously and begin to shift the direction and decolonize "institutions appropriated by Eurocentred modernity" (Grosfoguel 2013, 88).

Mahmoud Keshavarz

For me the urge to think decoloniality starts from two very specific and intertwined premises – my personal trajectory and my work trajectory. I will start with the first because I believe it is important for us in Decolonising Design to clarify how we have arrived at this point, in feeling the urge to start this platform of intellectual exchange and discussion.

My working and thinking has been primarily inspired by continental Western philosophy. I am trained in industrial design and grew up in Iran during the reformist era. This post-revolution era was defined by a series of student, feminist, and worker movements. Many newspapers were dominated by liberal agendas, and a number of Western liberal and continental philosophers were invited to give lectures. Their works were largely translated and published. Sometimes there was more than one translation of the same book of philosophy being published in one year! As time passed, New Left philosophers were also translated. Theoretical works produced in Europe shaped my perspectives on politics at the same time that I was trying to make sense of the street politics and how "ordinary" people push their politics in everyday life in Iran (Bayat 2013).

When I was in Iran, I read primarily Western thinkers. Later, when I moved to Sweden, I read primarily non-Western writers. This experience is not entirely unique. Famously, when Frantz Fanon, a middle-class Martinican, went to Paris to continue his studies, he was struck by an encounter which later would form the basis for one of his chapters in *Black Skin, White Masks*. After completing his studies in Lyon, Fanon was boarding a train to Paris and noticed a little white boy who stares at him and tells his mother: "Mamma, look! A negro. I am freightened," [sic] and the woman turns towards Fanon: "Take no notice, sir, he does not know that you are as civilized as we ..." (Fanon 1986 [1952], 111). For Fanon, this encounter points to different levels of racism as a structural drive as well as a product of colonialism and the benefits and privileges it provides for certain groups in the world. Fanon tells this story to locate his body in a world that bars him from participating in it in the way he desires or imagines. To be part of French society, he must either mimic the white body or behave like a black man as construed by French colonialism's social imaginary. Fanon (1986 [1952], 109) writes: "I came into the world imbued with the will to find a meaning in things ... and then I found that I was an object in the midst of other objects." What's more, I was struck by Fanon's willingness to share this personal experience. Such stories and lived experiences were missing from the majority of the Western scholars I had been reading. While living in Europe, I had a hard time understanding universal analysis and theorization of white Western scholars. Often posed as universal facts without bodily locations, these epistemologies persistently locate the other while failing to account for the geographical, historical, and corporal locations of the producers. Migration pushed me to read scholars who constantly locate themselves in the world. This was my personal path.

My research has also shaped my trajectory. My doctoral research project explored the material practices that shape and are shaped by

conditions of undocumentedness, conditions of being deprived of the basic civil rights due to lack of residential permits or not having the "right" papers in crossing borders, and residing in a territory. My interest was to locate design as a specific historical and material practice that produces violent conditions of mobility and, consequently, immobility and undocumentedness. It seems imperative to think of the colonial legacies of migration, of how the current understanding and policies around migration are shaped by various colonial practices around organization of mobility. However, and surprisingly, there are very few works addressing the coloniality of the politics of movement and mobility. This is due to a form of "methodological nationalism" (Glick Schiller and Wimmer 2002) being embedded in social sciences as a specific strand of the Enlightenment. Such an attitude dominant in much of the scholarship produced by Western institutions tackles the issues of migration and mobility as an incoming phenomenon. This happens by taking the nation-state or recently a more expansive nation-state (the European Union) as the given territory from which others, their acts and agency can be interpreted. For instance, writers in the Global North have produced a massive body of knowledge about "why they come here." This perspective positions the institutions and their researchers at the center of knowledge production. This formulation selectively highlights the act of coming here as the focus of research on non-white bodies, thus producing knowledge by and for white institutions. But in reality, the process of migration contains various localities, simultaneous leaving and arriving, transition and transformation. Others have noted the coloniality of knowledge, and it is indeed true that certain epistemologies designed and continue to design themselves out of history, reserving a high ground from which other epistemologies can be seen, compared, judged, and interpreted.

As I was finishing my research, I realized that discussing the politics of design and the design of politics without discussing their colonial histories is a partial project. While it is important to account for how design and designing have shaped the way in which Europe and European citizens assume certain bodies as "legal" border crossers and others as "semi-legal" or "illegal" border crossers, it is also urgent to consider whose design (i.e. from what time and position and from where) has made and sustained the current hegemonic order of movement. Think, for example, of the Western notion of design as a task of "problem-solving." This idea assumes a universal truth in addressing the complexity of the world as a series of problems to be solved. Moreover, it assumes the position of center for itself as given, and approaches other epistemologies from that given center, trying at best to collaborate with or at worst to assimilate them.

Pedro Oliveira

I see the necessity of a decolonizing ethos within design as a process of accounting, first and foremost, for the historicizing of the field itself. The world as problem, as Mahmoud notes, which is to be "solved"

from a single, universal "locus of enunciation" (Mignolo 2011), must be problematized in itself. Such a pre-packaging and systematization of complexity in terms that might be tackled by a single approach of "making" or "thinking through making" assumes a "solvability" which is immediately assigned to a mode of shaping the world into a certain "order": designing (which places practices stemming from industrial development as its starting point). If we recontextualize the emergence of design as a discipline within the wealth accumulated by and through the invasion and pillage of land and its resources, the erasure of Indigenous peoples and their cultures, and the forced displacement of populations and their resignification as commodities, we grasp a fuller understanding of the worldview promoted by designerly discourse. I believe that a decolonizing practice begs to directly challenge what it means to act within a set of skills, methods, and research imperatives that, by definition, stem from this colonial framework. A decolonizing ontological framework must see design as a socio-technical mechanism of inquiry, re-enunciation, and re-narration. It is a project of looking back and re-framing certain material practices, and also a project of understanding the relationality of things beyond their mere objecthood.

For me, this brings into the fore the need to position decolonizing design as a *doing* in both praxical *and* poietic terms (to recall Ahmed's point). What exactly this *doing* entails needs to be articulated from different standpoints. The first is to think of the designing of time: this process unfolds slowly and as a constant struggle, without necessarily reaching a "pivotal point" of a "decolonial" or "decolonized" design (Dilnot, Stewart, and Fry 2015). A decolonizing project dwells on time and moves at a different pace. It rejects the impositions of neoliberal academia and the colonial framework of result-driven, well-defined, problem-solving design. This, I think, is why we refer to it as "decolonizing" design rather than "decolonial" design. The term suggests a process, a movement without a set ending point.

The second element of this doing follows from the first. It entails decolonizing our roles in the spaces *upon which* we act, namely where we teach, exchange, think, and practice design. The spaces from which we think and practice design – spaces like the privileged site of academia – must represent the interests of the population whose life is most threatened by the designed engines of colonization. Decolonizing design thus becomes a question of breaking down segregated spaces within and beyond the classroom and academic circles, allowing for a "*mundo donde quepan muchos mundos (a world where many worlds fit)*", as the Zapatistas say (Ejército Zapatista de Liberación Nacional 1996). One way to do this is to confront the question of language, so that we learn how to speak differently and develop new "designerly" languages. There is a gap between decolonial theories and designerly work that a project of decolonizing design should address, even if it ultimately means rethinking and redesigning our relationship with designing altogether. In other words, *a project of decolonizing design speaks from and fosters spaces in which many border languages emerge.*

Gloria Anzaldúa (1987, 2015) theorizes on the production of such border languages. She observes that there cannot be a conversation that seeks to decolonize our onto-epistemologies if the poetic, the artistic, the spiritual, and the subjective are not accepted as cogent methods of knowledge production. We need this in order to unlearn and break down the engines of colonization beyond the theoretical and academic. Anzaldúa (1987, 80) reminds us that "because we internalize how our language has been used against us by the dominant culture, we use our language differences against each other." In adapting our language, in becoming fluent in several "wild tongues" (1987, 76), we invite others in, exchange our different knowledges, and decolonize discourses at the moment of their very enunciation.

Decolonizing is also a *prescriptive doing*. Paulo Freire reminds us that prescription is a key element in the articulation of power. He argues that "every prescription represents the imposition of one individual's choice upon another, transforming the consciousness of the person prescribed to into one that conforms with the prescriber's consciousness" (Freire 2000 [1970], 46–47). Design normalizes these prescriptions, and the work of design, even when practiced with a supposedly "socially-conscious" mindset, ultimately follows "the guidelines of the oppressor," teaching designers to assume the world as a well-defined set of problems to be solved. Instead, designers must understand that the very notion of the "world-as-problem" is an assumption worth challenging.

I see decolonizing design as a project that promotes an ontological change in how design is understood. Decolonizing design does not aim to create an opposition between "decolonized" and "colonized" designers or design practices. Rather, it promotes the ontological changes that will allow us to design more time for ourselves in this world. It is a project of incompleteness, of persistently un-learning and re-learning to see the world. We must constantly interrogate not only the field but also ourselves and our own practice; in so doing, we move beyond inquiring who is offered "a seat at the table" (to use Solange Knowles' language; Knowles 2016) but also the very terms used to set this "table."

Tristan Schultz

Pedro notes that the project of decolonizing design dwells on time and moves at a different pace, which rejects the impositions of neoliberal academia and the colonial framework of result-driven, well-defined, problem-solving design. This is important. As Fry (2009) has mentioned, the university can be traced back to the fifth century with the Nalanda University in Patna, India, one of five Buddhist centers of learning. From a Western perspective however, the university began in Bologna and is less than 1,000 years old. Apart from a rich discussion to be had here related to modernity appropriating the locus of the birth of ideas and knowledge, what I would like to bring in to focus is the sheer amount of time it took for the university as it is currently known to mature and become a defuturing institution. Can paths shift such that

the university becomes a futuring institution within the next hundred or so years? There's a tension here: on the one hand, the re-making of the university, *urgently* needs to unfold; on the other, this remaking needs to *patiently* unfold over an indefinite period of time.

An *urgent patience* in which people (particularly in the Global North) require giving over to a condition beyond the modern rational appetite to become, and give in to a becoming, an always moving, a working with what remains, while never arriving anywhere new. How can we, as designers, balance this *urgent patience* with the imperative of acting (designing or eliminating designs) swiftly toward the establishment of ontological designs that perform directionally toward viable human futures before "we" (humans) anthropocentrically accelerate our demise?

Luiza Prado

Ahmed and Danah point out that we cannot look only through the lens of contemporary Western thought. How are we, as scholars invested in the decolonial project, immersed in the very structures we want to challenge? How does this often manifest in insidious ways, and in our own discourse?

In the struggle for decolonizing design, I believe it is fundamental that we acknowledge and challenge the ways in which coloniality's hierarchical classification of subjectivities shapes our perception of which subjects are permitted to enunciate and produce knowledge. Ramón Grosfoguel (2011, 71) points out that the global gender hierarchy and the global race hierarchy established by coloniality cannot be thought of separately; it is through the intersection of these facets of the colonial project that white women come to "have a higher status and access to resources than some men (of non-European origin)."

Maria Lugones (2007) argues that the emergence of a colonial/modern gender system is foundational to the enactment of colonial power. She identifies within this system a "light" side and a "dark" side. The "light" side concerns itself with hegemonic constructions of gender and sex/sexuality, and pertains to "the lives of white bourgeois men and women" (2007, 206) while simultaneously constructing these very categories. The "dark" side regulates the lives of those subjects that exist outside or at the margins of the white, bourgeois, heteronormative patriarchy. Although both "light" and "dark" sides of the modern/colonial gender system are violent, Lugones stresses that this violence is manifested and enacted in fundamentally different ways. The gender system positions all women as closer to the realm of nature than to that of culture. White womanhood is associated with innocence and respectability, and white women are charged with the task of perpetuating the white race within the nuclear, heterosexual family, while non-white womanhood is animalized, "marked as female but without the characteristics of femininity" (2007, 202–203). Non-white women thus come to be associated with sexual perversion, so validating the rape and sexual exploitation of non-white women within the modern/

colonial gender system. Inevitably, the violence imposed by this gender system spills into how design engages with the body: its articulation of modes of being made by and in the world – what Anne-Marie Willis (2006) calls ontological designing – is, after all, also implicated in the articulation of how gender is made, performed, and embodied in the world. It is in provisional acts of materialization, of *mattering* (Ahmed 2008, 33) – a process inextricably entangled with the material world – that gender comes into being, and "becomes worldly."

Scholarship on precolonial social structures provides useful glimpses beyond this modern/colonial gender system. Feminist scholar Oyèrónkẹ́ Oyěwùmí (1997), for instance, remarks that gender was not a structuring principle in Yorùbá society prior to the contact with European colonizers: language and given names were gender neutral, and there was no concept of opposing, binary, hierarchical genders. Yet, European colonizers, presuming the universality of their own mode of social organization, described Yorùbá society as if gender were, indeed, perceived along patriarchal, dimorphic lines. This triggered profound changes in Yorùbá society; it is in response to European biological determinism that the "body-reasoning" (Oyěwùmí 1997, 5) of Yorùbás shifted, and bodies marked as feminine came to be coded as hierarchically inferior, subaltern.

Lugones (2007, 188) reminds us, however, that such a profound shift cannot occur without the strategic indifference that "men who have been racialized as inferior, exhibit to the systematic violences inflicted upon women of color," and that the theorization of "global domination continues to proceed as if no betrayals or collaborations of this sort need to be acknowledged and resisted." I bring this up because I believe that decolonization *must* emerge from an engagement with feminist and queer theories, and Lugones' critique is unfortunately very apt; the contributions of feminist scholars of color are still often overlooked, even within our group. Modern/colonial gender arrangements are also manifested in the ways in which we opt – and I use this word with an acute awareness of its weight – to engage with decolonial theories: with whose and which ideas we choose to engage, and whose and which theories we choose to highlight in our work. Who gets a seat at the table, as Pedro mentioned. Design historian Cheryl Buckley (1986, 5) emphasizes that the division of labor within Western design has historically been organized along the hegemonic gender binary, where women are presumed to have "sex-specific skills" that make them especially suited for work in the decorative arts, and in fields associated with domesticity such as embroidery, weaving, knitting, pottery, or dressmaking. On the other hand, fields like architecture or graphic design have historically been male-dominated. At the famed Bauhaus school, it was feared that the presence of women practitioners in these fields could "weaken" these disciplines (Ray 2001). This division of labor trickles down to the production of knowledge in design, too: male theorists still enjoy disproportionate visibility, opportunities, and respect in design academia.

It is not enough to shift our focus from a Northern- and Western-centric perspective to one that is Southern-centric. We must also address the masculinist structures of power that govern knowledge production in design. The work of decolonization requires a profound consideration of how gender hierarchies established by coloniality affect our perception of what counts as valid knowledge, and who generates that knowledge. Decolonization is a daily practice, one that encourages us to be critical of our own, preestablished modes of acting and thinking; one that requires us to challenge how we speak, to whom we are speaking, and how. We must challenge our own standard citational politics and reflect upon whose work we choose to highlight. A decolonial politics must be a feminist politics; otherwise, we risk reinforcing the same structures that we set out to deconstruct.

Ece Canlı

Mahmoud's emphasis on personal trajectories resonates with Ahmed's suggestion of delving into our own complex civilizational histories. To this I would add that we cannot thoroughly make sense of the ongoing effects of coloniality and its material politics without digging into our own cultural, historical, ancestral, and colonial pasts, and situating our present selves within a greater temporal and geographical context. Doing this helps us not only map relational worlds and subjectivities (as Tristan says), but also uncover, contest, and even deconstruct a myriad of identities introduced and stamped on us by the modern, colonial, capitalist world system. This approach allows us to see how our identities as, in Luiza's words, hierarchically classified subjectivities imposed by colonialism are continuously reinforced and reproduced by material practices (aka designing). Therefore, a journey towards one's own individual and collective history is also imperative for design researchers who seek to investigate socio-corpo-material conditions constituted and perpetuated by coloniality. Queer feminist thinking has taught us that this is not an easy task. It entails a great deal of self-reflection, self-redirection, and incessantly challenging one's own knowledge, subjectivity, and privileges, as well as the epistemic and ontic foundations from which these subjectivities derive. But it is worth it if it allows us to undermine insidiously manifested partialities, immunities, and relations with various axes of power.

I stress the importance of this task to amplify Luiza's points on how, although one of the main premises of decoloniality is to overthrow the hierarchical order that segregates bodies and knowledges, this order persists at both material and discursive levels, threatening to undermine our decolonizing effort. One of the threats resides in the politics of citationality. In continental philosophy and in design scholarship formed and taught by the West, "white men cite white men" (Ahmed 2014), excluding gendered, sexualized, and racialized bodies from the main philosophical and methodological discussions (Clerke 2010). But this cannot be tolerated in decolonial thought. If our desire is to avoid the discriminatory traditions of knowledge-making, we should

constantly retrace and reformulate our own reasoning about whose voice is heard, whose knowledge is valid, and whose privileges cause others' oppressions.

Decolonizing design is also threatened by a tendency to inhabit, see, and make the world through the lens of the binary logic (i.e. man/woman, male/female, black/white, inferior/superior, primitive/civilized, culture/nature, ontology/epistemology, West/East, etc.). A decolonial approach must undermine stark oppositions that marginalize the subjectivities and epistemic traditions inferiorized by modernity. A decolonial approach must uncover other ways of being, such as in-between or on the borderlands, as Pedro suggested. However, even we researchers with decolonial agendas tend to repeat these binaries. For example, we regard the relationship between the colonized and the colonizer as though there is one external malevolent colonizer from the Global North and one exploited yet benign colonized of the Global South. The story, as we know, is much more complicated. We cannot ignore the complicities and power interests of the colonized, nor many different forms of subjugation between the oppressor, oppressed and *inter se*, especially when it comes to gendered and racialized bodies residing at the lowest levels of the hierarchical power. In the prologue of the documentary film *Concerning Violence* (Olsson 2014), Gayatri Spivak similarly speaks of how gender oppression has been overlooked in the discourse of decoloniality and how in the violent process of gendering, the colonizer and the colonized act(ed) as allies. Her utterance evokes similar queer, decolonial critiques of how Western-oriented gender and sex categories have benefited not only the white colonizer man, but also the colonized man who savors the privileges of heteropatriarchy and heterosexism introduced to him (Lugones 2007; Oyewùmí 1997). At the same time, the gendered and racialized body is dominated by its Western counterparts (i.e. "whitestream" neoliberal queers, women, feminists) through altruistic attempts to save the latter from "monstrous" and "uncivilized" non-Western males (Petzen 2012). What's more, by dooming subaltern knowledges, agencies, and materialities to inferior status, there is a perception that they must be validated by the West (in this case Western gender and sexuality discourse). Otherwise, as Danah mentioned, their struggles and wills are deemed illegitimate (Abu-Lughod 2001). As decolonial researchers, we need to be aware of if and how we trigger structures of dominance in our professional and personal lives.

We might thus think of decolonizing design praxis, research, and pedagogy not only as a form of "doing" (as Pedro suggested) but also as form of "undoing," as an act of passivating, unravelling and *no longer contributing* to material-discursive configurations that privilege certain bodies while oppressing and dehumanizing others. Such efforts to undo can be understood as both a precondition for and consequence of *unlearning*. And for us, as designers and researchers, this unlearning can only arrive through "de-linking" not only from the ideas and methods taught by the holders of material and epistemic power, but also from the humanitarian design endeavors that *other the others*

further and replace a multiplicity of voices with tokenism and diversity. We cannot be freed from the material and onto-epistemological subjugation of the Global North without constantly contesting our own positionalities and privileges.

This, together with the previous accounts in this roundtable, might answer one of Matt's initial questions on how "decolonizing design" would be different from being yet another additive category in Design Studies. If we cannot fulfill the imperative tasks we have hitherto propounded, not only the term but also the effort of "decolonizing" is doomed to be hallowed, forgotten, and replaced by other newcomer labels for design.

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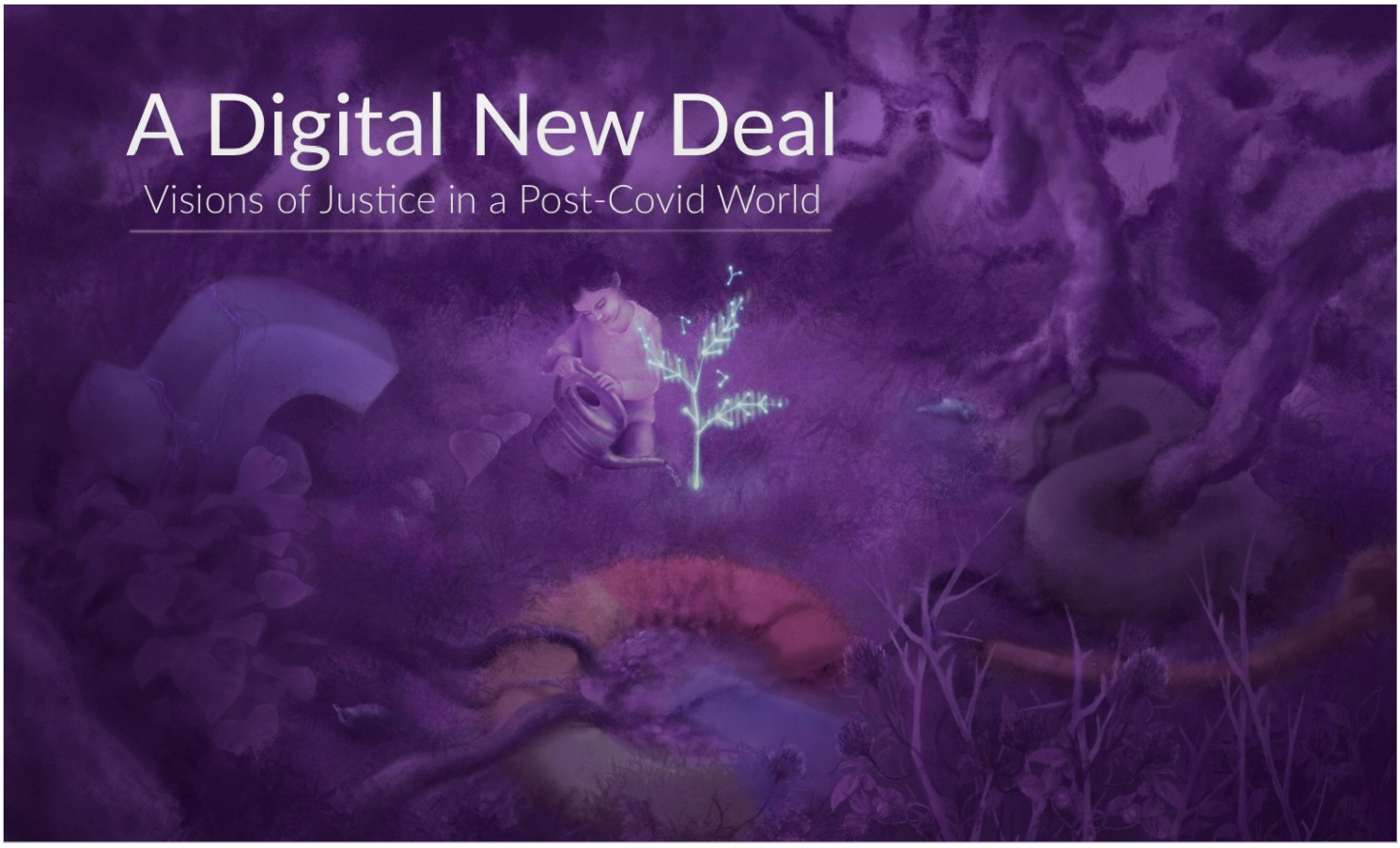

Whose Knowledge Is Online? Practices of Epistemic Justice for a Digital New Deal

Azar Causevic & Anasuya Sengupta

The internet, as the primary digital infrastructure for knowledge, exacerbates existing inequities of marginalized communities across the world, even as it promises to be emancipatory and democratic. Through this essay, we offer our understanding of epistemic injustice, and how it manifests online. We also offer

possible practices towards epistemic justice that need to be at the heart of any form of a "digital new deal". We first analyze two critical ways in which epistemic injustice manifests online: knowledge infrastructures, and knowledge creation and curation. We then describe our work to challenge these injustices on Wikipedia and through radical community archives, in partnership with the Dalit community from South Asia and the diaspora, the Shoshone and Kumeyaay Native Americans from the United States, and the queer community from Bosnia and Herzegovina. Finally, we offer three core organizing practices to decolonize the digital: centering the leadership of the marginalized and convening unusual and unlikely allies; contextualizing the digital to specific experiences and needs; and countering the hegemony of the "global" through a constellation of translocal imaginations and designs from across marginalized communities. More broadly, this essay argues for the decolonization of digital practices and calls for an urgent (re)imagination and (re)design of technological spaces. This, we contend, can only be done through the leadership and imaginations of marginalized communities, in a process free from material and cognitive exploitation.

Illustration by Deniz Erkli

We are Azar Causevic and Anasuya Sengupta. We are friends and fellow fighters in the cause of ‘epistemic justice’: the recognition that not all knowledge systems and communities of knowledge have been treated equally through history, and the practice of challenging these inequities. We believe that at the foundation of many forms of violence in the world today is the violence of “unknowing”, that we do not know each other as fully or as well as we should or could. The knowledges of the majority of the world – women, people of color, LGBTIQ+

folks, indigenous communities, and most of the Global South – have been marginalized, undermined, exploited, or ignored by historical and contemporary structures of power and privilege. Nowhere is this more starkly obvious – and simultaneously hidden – than in the digital worlds of the internet. To us, the (re)imaginations and (re)designs of the internet can be truly transformative only by centering the leadership and knowledges of the marginalized: the majority of the world.

Azar Causevic was born in Bosnia and Herzegovina.
Throughout my life, I have been trying to understand war, (transgenerational) trauma, gender, desire, loss, and injustice from personal and community perspectives. In 2011, a group of us started Okvir, an LGBTIQ+ grassroots organization in Sarajevo. We began by building community resilience and queer visibility in post-war Bosnia and Herzegovina, and after seven years of activism and organizing, have been able to put together structured mental health support for our community members. We were also able to build a queer archive to honor the stories and testimonies of LGBTIQ+ survivors of the 1990s Bosnian war as well as queer, feminist and anti-militarist resistance to the war in former Yugoslavia. [1]

Anasuya Sengupta was born in India.
As a woman from a middle class but "upper caste" or "savarna" family, I have struggled to understand, challenge, and transform my own simultaneous positions of oppressor and oppressed, (non)power and (non)privilege. I lived and worked in India till my early 30s, working both locally and internationally in feminist and social justice movements. In the early 2000s, I tried to bring together (unsuccessfully, at the time) feminist communities with free/libre and open source technology (FLOSS) communities. I moved to the United States in 2007, and more recently, to the United Kingdom, where I find myself a "woman of color" coping with my racialized identities and experiences. In 2016, I co-founded Whose Knowledge?, a global, multilingual campaign to center the knowledges of marginalized communities online. [2]

> The (re)imaginations and (re)designs of the internet can be truly transformative only by centering the leadership and knowledges of the marginalized: the majority of the world.

The two of us came together through the work of our organizations, and are now part of a growing community of practice and praxis around the world that works to make public knowledge online, for and from us all. We can only do this by ensuring that the internet's infrastructure, design, architecture, content, and experience are governed and led by the imaginations and expertise of the marginalized majority, grounded in the practice of epistemic justice.

In this essay, we lay out the ways in which we understand epistemic injustice, and how it manifests online. We then offer some practices towards epistemic justice online that we believe need to be at the heart of any form of a "digital new deal".

Historical and current structures of power and privilege continue to define what is considered "received" or "accepted" knowledge, who creates it, and how. Institutions and individuals embedded in systems of capitalism, colonization, patriarchy, racism, and LGBTphobia have actively undermined, destroyed, or appropriated the knowledges of much of the world's populations. This has led to severe knowledge or epistemic injustices against marginalized communities even though they *are* the majority of the world, and the power enabling the internet. Yet the internet, as the primary digital infrastructure for knowledge, further exacerbates these inequities, even as it promises to be emancipatory and democratic.

Historical processes of colonization and imperialism – by western Europe and the United States – have also produced implicit and explicit assumptions of racial and "civilizational" hierarchies. These assumptions have, in turn, informed and justified the expansion of colonial and imperial rule in Asia, Africa, and the Middle East, and the slave trade from these regions into North America and Europe. [3]

Even after the mid-twentieth century, when decolonization movements began across Asia and Africa, as well as among indigenous communities of the world, these assumptions have continued to shape how people of color, including African-American, Native American, and other non-white communities in the US, are treated. Most critically, beyond the facts of whose material resources were and continue to be exploited and extracted, these assumptions have determined whose knowledges and histories are considered worthwhile, and deserving of preservation and amplification. The cognitive consequences of slavery, colonization, and imperialism extend across the world, and often remain unanalyzed and unchallenged.

Miranda Fricker, a feminist philosopher, calls these hierarchies of knowing "epistemic injustice": "[the] wrong done to someone [...] in their capacity as a knower". [4] She makes a distinction between testimonial and hermeneutical injustice. Testimonial injustice "deflate[s] the credibility" of an individual or disbelieves a community – for example, when the police don't believe a black man on the streets. Hermeneutical injustice is a refusal to acknowledge the "social experience" of someone different from you because you disbelieve a concept – for example, a woman who experiences sexual harassment is not believed in a culture that either lacks an understanding of the concept or willfully undermines it.

These forms of testimonial and hermeneutical injustices are particularly stark in public knowledges on the internet. Two critical ways in which knowledge injustice manifests online are: a) knowledge infrastructures, and b) knowledge creation and curation.

Online knowledge infrastructures

The design, architecture, and governance of the internet's "global" platforms and tools rarely include women, people of color, LGBTIQ+ folks, indigenous communities, and those from the Global South (Africa, Asia and the Pacific Islands, Latin America, and the Caribbean). Currently, over 58 percent of the world's population can access the internet. [5] Of those, over 75 percent are from the Global South. [6] More than 45 percent of women across the world are online. [7] And yet, the internet does not look like us, and it is certainly not governed by us: a

trans person from a country of the Balkans who speaks four different languages other than English, or a brown woman from India who speaks five languages other than English.

Instead, it is primarily the perspectives of white, cisgender, North American men that dictate how our knowledge infrastructures are created and managed. This includes complex issues of the global digital economy and ecosystem: digital (material, technical, and cognitive) labor, the colonization of data, [8] and e-waste "management" in the Global North that takes the form of "dumping" in the Global South. In essence, the platforms, policies, and protocols that most of us experience as the "internet" are created for and decided by the "local" context of the United States, making this "local" the largely unquestioned "global" of the rest of the world.

Facebook, for instance, is notorious for its role in spreading hate speech on the internet, often driven by its lack of awareness of non-US contexts and utter disregard for criticism emanating from there. The United Nations, for instance, has strongly condemned Facebook's role in the Rohingya genocide in Myanmar, where the social media platform did not have a team on the ground, let alone one with expertise in the local languages. This, years after activists have been warning about the unfolding crisis. [9] Twitter tries to do better on hate speech, for instance, through a "fact check" feature that determines whether indigenous communities are appropriately addressed, but its curation style guide only describes populations in the US, Canada, and Australia, [10] ignoring the 370 million indigenous peoples across 70 countries. [11] So-called "artificial intelligence" or machine learning platforms, fed by datasets that are primarily based on white men, notoriously replicate systemic biases. [12] With the majority of the world excluded from knowledge infrastructures, such instances will continue to exist and proliferate.

> The inability of marginalized communities to create knowledge in their own languages on the internet reinforces and deepens existing offline inequalities. Language is a proxy for knowledge; the fewer the languages in which online public knowledge is available, the more restricted our access to the full range and multiple forms of human knowledge.

Another aspect of digital infrastructures that is often ignored or underanalyzed is that of language. The internet we have today is not multilingual or multiform enough to reflect the full depth and breadth of humanity. The inability of marginalized communities to create knowledge in their own languages on the internet reinforces and deepens existing offline inequalities. Language is a proxy for knowledge; the fewer the languages in which online public knowledge is available, the more restricted our access to the full range and multiple forms of human knowledge.

Besides, the majority of public knowledge online is textual, in English, and created or curated

by a select few. A few years ago, Google estimated that the nearly 130 million books published in modern history are in only 480 languages, a tiny fraction of the over 7,000 languages of the world.[13] Most of the world's languages are similarly missing from the internet.[14] Of the languages represented, English dominates general online content, accounting for 60 percent of the world's top 10 million known websites.[15] Most scholarly (including digitally accessed) publications are in English: this includes approximately 80 percent of all scientific journals[16] and 90 percent of all social science journals indexed on Scopus and JSTOR.[17] And while the internet has the potential to represent multiple forms of knowledge – multimedia, oral, visual, tactile, and embodied, which constitute most of the collective body of human knowledge[18] – these forms are missing from its archives.

Knowledge content and curation online

Like knowledge infrastructures, public online knowledge is skewed as well, because the majority of those who use the internet do not produce the content on it. Take for instance, the world's foremost source of free public online knowledge, Wikipedia. Only 20 percent of the world (primarily white male editors from North America and Europe) edits 80 percent of its content,[19] and only 1 in 10 editors is female.[20] The result is that there are more articles online about Antarctica than most countries in Africa.[21] Besides, Wikipedia's citation policies require as references secondary sources like books, peer reviewed journal articles, and other forms of physical and digital publishing that have the inherent biases of language and location we have already described.[22]

These inequities also extend to visual knowledge. Wikipedia is again a good proxy to explain why women remain invisible in online spaces. Less than one-fourth of Wikipedia biographies are about women. Such biographies either do not exist or are incomplete. Black, brown, indigenous, and queer women are more likely to be missing and their knowledges underrepresented or deleted due to Wikipedia's current policies.[23] When they do exist, women's biographies are unlikely to carry their faces. We estimate (based on a forthcoming study) that less than 20 percent of Wikipedia articles on women have pictures. And when women's faces are missing from Wikipedia, their invisibility becomes more entrenched.

Half a billion people read Wikipedia every month.[24] It is among the top 20 most visited websites in the world,[25] and the largest free and openly available information base for many other websites, including Google's search engine and its knowledge graph.[26] Content gaps on Wikipedia thus have a significantly amplified impact on the broader internet. When we look for our childhood inspirations on the internet, we are more likely to find detailed articles on the *Simpsons*' TV show rather than any information on Lepa Mlađenović, the Serbian lesbian feminist, or *We Also Made History*, the first book detailing women's participation in India's Dalit movement. As part of our archival work, we had to write these articles so they could "exist" on Wikipedia and be known more broadly on the internet, and in the world.

> *"Our encounters with mainstream knowledge production must be placed in this historical context. We remember that Dalits and other caste-oppressed people were not allowed access to reading, writing, or learning for millennia."*

– Maari Zwick-Maitreyi, Dalit scholar and activist [27]

> *"[The] scientific knowledge [of indigenous peoples] was designated as 'folklore' and our cosmology relegated to the category of 'myth'. Our great literatures in the form of dances, songs, and oral histories became and continue to be cultural artifacts easily commodified and appropriated."*
> – Persephone Lewis, professor of tribal practice (University of San Diego), from the Yomba Band of Shoshone Indians

What we have learned through years of working at the intersections of feminist, queer, social justice, art, and technology movements, is that power and privilege are truly confronted and transformed in *practice*. So our work has been about practicing new ways of navigating and understanding knowledge and the digital, for ourselves and our communities. Three critical aspects of this work are: a) the ways we think and act around the politics and hierarchies of knowledge; b) the politics and hierarchies, even more specifically, of history; and c) how this helps us (re)imagine and (re)design the digital for very different (digital) futures.

> What happens when we start understanding the folklore and myths of indigenous and other marginalized peoples as different ways of expressing scientific and other knowledge in their contexts? What happens when we collect "ourstories" from communities whose existence was perennially negated?

Science and technology aren't the exclusive provenance of 18th century Enlightenment, or contemporary scholars and researchers of Europe or North America. Throughout history, the knowledges of marginalized peoples have been actively destroyed and undermined by structures of power and privilege. For example, some indigenous knowledge systems were regarded as primitive, pagan, and heathenish, while others were systematically relegated as non-knowledge. [28] These power relations continue to imbue present-day knowledge production.

But what happens when we start understanding the folklore and myths of indigenous and other marginalized peoples as different ways of expressing scientific and other knowledge in their contexts? What happens when we collect "ourstories" from communities whose existence was perennially negated?

Politics and hierarchies of knowledge

When we first started Whose Knowledge? in 2016, and began challenging the politics and hierarchies of knowledge, we started with Wikipedia. We were Wikipedia editors ourselves, and understood the urgency of making the world's largest online encyclopedia truly

representative of the worlds we inhabit. Even though we couldn't shift and change the form of the encyclopedic entry, we wanted to make sure that communities like the Dalits from South Asia and the diaspora, or the Shoshone and Kumeyaay Indians from the United States, were not forgotten and marginalized many times over in the digital knowledge commons. This was particularly important to Anasuya, as a "savarna" Indian who bears responsibility for her caste communities who have inhabited and gained from an oppressive caste system for millennia. I also found an intriguing emotional and political connection with my Native American friends whose lands had been brutally colonized by Europeans in search of my own; the colonizers found us both, and our histories and experiences of colonization resonate even while they are different.

The Dalits are the community of over 250 million people from South Asia and the diaspora who were formerly and pejoratively called "untouchables". The "upper caste" or "savarna" communities of the caste system considered them fit only for manual scavenging and the handling of corpses – practices which continue to this day. As Maari Zwick-Maitreyi reminds us, Dalits have been systematically denied access to spaces and tools of education and knowledge. When we began collaborating with our partners, the Dalit feminist group Equality Labs, [29] they had already been working on retelling South Asian history from the perspectives of Dalit Bahujan communities, [30] through the radical community project, Dalit History Month. [31] We used this as a foundation to map the Dalit Bahujan knowledge we wanted to bring online, including to Wikipedia. This enabled our Dalit friends and scholars determine the knowledge they wanted to archive. Since 2017, they've created a huge swathe of new and modified content [32] through editathons we've helped them organize: over 100 editors modifying 270 articles and creating 30 new ones.

Yet, soon after they began their work, a Wikipedia editor of Indian origin began to systematically reverse these efforts, by removing significant sections of edits and additions, and flagging other edits as inappropriate. To this day, Dalit editors and their articles continue to face significant backlash and reversions on Wikipedia. The biographical article about the Dalit South Asian icon, Dr. BR Ambedkar (known for being the architect of India's constitution, among many other things), is periodically vandalized. We've been building an ally network to push back against these trolls, but the process is slow, painful, and retraumatizing for a community of activists and scholars challenging overlapping forms of power. This is especially so in the current moment in India, governed by a Hindu fascist state that is systematically destroying and undermining all knowledges and histories that don't uphold a monocultural "Vedic" narrative.

These extraordinary forms of brutalizing marginalized communities and their knowledges resonate with the experience of the Kumeyaay Nation and Yomba Band of Shoshone Indians who we work with in the United States. During conversations with the Kumeyaay elders on bringing their knowledges online, we were reminded that, until very recently, it was illegal to practice Native American cultures and beliefs in the US. It was only in 1978 – within living memory and existence of most of their generation – that the American Indian Religious Freedom Act allowed them to share their knowledges publicly. The elders also reminded us that for many indigenous peoples across the world, sacred knowledge is not meant to be shared openly. Over time, the scientific knowledge of these communities, as Persephone Lewis tells us, became "reduced" to myth and story, their cultures and practices exploited and

commodified.

These politics and hierarchies continue to be exemplified in the marginalization of Native Americans in the present-day US. When we first began editing Wikipedia together, Kumeyaay scholar Michael Mishkwish Connolly did not begin with Kumeyaay astronomy and agriculture (on which he is an expert). Instead, he began with editing a Wikipedia article on the Californian Gold Rush, [33] which at the time, only made a passing reference to the impact of the Gold Rush on Native American populations. Where it did mention them, the accompanying illustration was of a Native American "savage" shooting arrows at "hapless" white settlers. Today, that section of the article is far more substantial, recounting the genocide perpetrated on the native populations by the settlers, with a historically accurate illustration of a group of settlers pointing their guns at Native Americans. Lewis, who is professor of tribal practice at the University of San Diego, has been working with her students to mark and honor these many facets of Native American knowledge and history, and bring them online through Wikipedia.

For both Dalit and Native American people, challenging the politics and hierarchies of digital knowledge is not an intellectual effort: it is the essence of their own self-respect, self-determination, and dignity as communities. It is emotional, cultural, economic, and deeply political. It is a practice of epistemic resistance and revolution.

Politics and hierarchies of history/ourstory

As part of Okvir's Queer Archive project, in collaboration with Whose Knowledge?, we collected "ourstories" from our community of LGBTIQ+ activists in Bosnia and Herzegovina (BiH) who had survived the Bosnian war (1992-1995). Up until then, war narratives had been monopolized and monetized by political ethnonational elites or "eligible" victims and survivors, and did not include the experiences of queer feminist activists or our anti-military comrades. There were no recorded accounts of queer people in the diaspora, in concentration camps, or hiding in basements, queer sons and daughters of those who fought against each other, queers who refused to shoot, queers who didn't belong to any of the ethnic categories, queers who died, and so on. *Our*story was crowded out and invisibilized by the male, heterosexist, ethnonationalist *his*tory of the war.

The interconnections between "war", "LGBT", "queer", "security", "gender", "sexuality", "resistance", "ethnicity" have historically been ignored in BiH. These concepts have been given meaning only by those in power. As we mourned each victim, we understood that history and justice didn't include us, that we were not recognized as legitimate to claim justice in the first place. Following years of community conversations, we decided to start by archiving "ourstories" from the painful period of the Bosnian war, even as we understood that our existence goes beyond the former Yugoslavia and its disintegration, and further back into the past. We needed to trace part of our roots at the intersections between three different, but as it turned out, deeply connected movements in the region: feminist, anti-militarist, and early LGBT activism.

In a discussion during our early work on Queer Archive, one of us asked aloud: "Who are my (queer antifascist) people? Yes, we did have the Antifascist Front of Women during WWII, but were queers there? I need to find out who my people are and what they did during this war that we remember. Did they resist? How did they survive?" So many powers have conquered Bosnia and Herzegovina throughout history, so many wars have been fought on its land, and there is such a strong antifascist legacy. Yet, there are no documented traces of

queer existence in recorded history. It is as though we did not exist. The question 'who are my people' haunted us. This blindspot in collective memory left us feeling dislocated as a political community, and this was a gap we urgently needed to fill.

In October 2016, we started documenting the work and survival stories of our community's pioneers for the archive. In subsequent years, this initiative has anchored the queer community in BiH, giving us a sense of continuity in our own struggles, and a reason to celebrate. Being able to look back at the past with pride and a sense of belonging is vital in the context of BiH where belonging and pride have normally been reserved for the majority who claim the entirety of history, and exclude those opposed to violence, division, and profit. The anti-military queer women who worked on rape trauma with survivors, the queer people who initiated the first queer organization, or the gay men who, to this day, work on preserving the antifascist legacy are the foundations of our archive.

> *"If we taught histories along with technologies, we would be able to bring the genius of human collaboration and problem solving back into technological spaces [...] Are we linking technology to processes of extraction in the interests of the elite, or are we prepared to rethink technology from the ground up, rather than naively recirculate the forms of technology given to us?"*
> – Kavita Philip, professor of history and feminist science and technology studies, University of California, Irvine

The decolonization of digital practices calls for an urgent (re)imagination and (re)design of technological spaces, with the leadership of marginalized communities, through a process free from exploitation. This needs a deeply feminist, human, and humane politics and practice – the commitment to address deep inequities, and affirm, acknowledge, share, and redistribute knowledge without extraction and exploitation. From the perspective of marginalized communities, this needs critical and radical creativity and adaptability, and the courage to speak many truths to many powers, while documenting and centering our own heritage, histories, ancestors, and pioneers.

This work must simultaneously challenge the entrenched political economies of knowledge that exist both in the physical and digital, material and cognitive, economies of the local and global. We need to see the interconnectedness of cognitive and material labor, and honor the bodies, minds, and spirits of marginalized communities. We can only imagine (digital) futures through acknowledging our pasts and presents.

> We need to, once and for all, break the myth of the "global" internet that is primarily designed and controlled from Silicon Valley, California.

Three core organizing practices will help us in this process: a) centering the leadership of the

marginalized and convening unusual and unlikely allies; b) contextualizing the digital to specific experiences and needs; and c) countering the hegemony of the "global" that comes

from a very specific local Silicon Valley perspective, through a constellation of translocal imaginations and designs from across marginalized communities.

Center the margins and convene unusual and unlikely allies

The many inequities of the digital that we currently live with will not be overcome and transformed by those who created them. At Whose Knowledge?, in partnership with many movements, organizations, communities, and individuals across the world, we have begun convening unusual and unlikely allies who will help us dream of and act upon visions of a feminist and decolonized internet. Our Decolonizing the Internet conference in Cape Town in 2018, and the Decolonizing the Internet's Languages convention in 2019, brought together community activists and scholars, technologists, archivists, librarians, open knowledge advocates, and many others, to think through ways to transform our digital presents and futures. Over 60 percent of our groups comprised women or trans/non-binary folks, over 60 percent were from the Global South, and more than 70 percent were people of color. Centering marginalized communities and their expertise meant that the conversations and agendas for action were radically different from those of a homogenous group of California-based or focused technologists. [34]

Contextualize, contextualize, contextualize

Our systems of knowledge, our languages, our socio-political and economic contexts are rarely understood, or centered in, current digital designs of the internet. But there can be no digital new deal without a deep, meaningful, and intentional understanding of different and specific contexts and experiences.

In creating Queer Archive, we found that platforms for archive building are rarely contextualized and localized in different languages. Most of them are dependent on unpaid, unacknowledged, volunteer community work for their localization and translation. For instance, Omeka, a popular open source, web-publishing platform for sharing digital collections in BiH is not yet translated to Bosnian, Croatian, or Serbian. Simply cross-referencing and combining metadata in English and our local languages requires additional labor, let alone creating metadata "classifications" and systems that apply to our contexts. The internet abounds in these forms of disembedded, decontextualized design and knowledge infrastructures.

Counter the "global" hegemony of Silicon Valley through a constellation of translocal imaginations and designs

We need to, once and for all, break the myth of the "global" internet that is primarily designed and controlled from Silicon Valley, California. We each access and experience the internet not in a singular form, but in multiple ways. Yet, this homogenizing narrative is entrenched in digital infrastructures, content, and governance, as we have pointed out throughout this essay.

We need to counter this hegemony through a constellation of translocal imaginations and designs that also include our friends from marginalized communities of California, and that will make our digital futures what we want, need, desire, and imagine. Both of us have spent the last few years connecting this constellation of communities through our own work, and that of our friends. Only through these powerful translocal connections, can we move towards epistemic justice online and (re)affirm that "our knowledges are urgent. They are practical. They are creative, colourful and collective. They are plural [...] Our knowledges are transformative. They are hope." [35]

Notes

[1] Okvir's queer archive: www.kvirarhiv.org.
[2] More about Whose Knowledge? here: https://whoseknowledge.org/.
[3] See among many others: Linda Tuhiwai Smith's *Decolonizing Methodologies* (Zed Books, 2012); and Meera Sabaratnam's *Decolonising Intervention* (Rowman & Littlefield International, 2017).
[4] Miranda Fricker, *Epistemic Injustice* (Oxford University Press, 2007).
[5] "Internet World Stats: usage and population statistics" (*Internet World Statistics*, 2020), https://internetworldstats.com/stats.htm.
[6] Ibid.
[7] "ITU releases 2017 global information and communication technology facts and figures" (*International Telecom Union News*, 2017), https://news.itu.int/itu-releases-2017-global-information-and-communication-technology-facts-and-figures.
[8] See among others, Renata Avila, "Against Digital Colonialism", 2020, https://autonomy.work/wp-content/uploads/2020/09/Avila.pdf.
[9] Kevin Roose and Paul Mozur, "Zuckerberg Was Called Out Over Myanmar Violence. Here's His Apology" (*New York Times*, 2018), https://www.nytimes.com/2018/04/09/business/facebook-myanmar-zuckerberg.html.
[10] Twitter curation style guide" (*Twitter*, 2020), https://help.twitter.com/en/rules-and-policies/curationstyleguide.
[11] "Indigenous Peoples, Indigenous Voices" (*United Nations Permanent Forum on Indigenous Issues*, n.d.), https://www.un.org/esa/socdev/unpfii/documents/5session_factsheet1.pdf.
[12] Kate Crawford, "Artificial Intelligence's White Guy Problem" (*New York Times*, 2016), https://www.nytimes.com/2016/06/26/opinion/sunday/artificial-intelligences-white-guy-problem.html.
[13] Joab Jackson, "Google: 129 Million Different Books Have Been Published" (*PC World*, 2010), https://www.pcworld.com/article/202803/google_129_million_different_books_have_been_published.html.
[14] Miguel Trancozo Travino, "The many languages missing from the internet" (*BBC Future*, 2020), https://www.bbc.com/future/article/20200414-the-many-lanuages-still-missing-from-the-internet.
[15] W3Techs, 2020. https://w3techs.com/technologies/overview/content_language.
[16] Daphne van Weijen, "The Language of (Future) Scientific Communication" (*Research Trends*, 2012), https://www.researchtrends.com/issue-31-november-2012/the-language-of-future-scientific-communication/.
[17] Frans Albarillo, "Language in Social Science Databases: English Versus Non-English Articles in JSTOR and Scopus" (*Behavioral and Social Science Librarian*, 2014), https://doi.org/10.1080/01639269.2014.904693.
[18] See UNESCO's definition of intangible heritage; https://ich.unesco.org/en/what-is-intangible-heritage-00003. Michael Polanyi describes this as tacit knowledge in *The Tacit Dimension* (University of Chicago Press, 1966).
[19] "Global South Update" (*Wikimedia Foundation*, 2015), https://upload.wikimedia.org/wikipedia/commons/a/ab/Key_theme_-_Global_South%2C_WMF_Metrics_Meeting_February_2015.pdf.
[20] Among many others, Nicole Torris, "Why Do So Few Women Edit Wikipedia?" (*Harvard Business Review*, 2016), https://hbr.org/2016/06/why-do-so-few-women-edit-wikipedia.
[21] "Geotagging reveals Wikipedia is not quite so equal after all" (*The Conversation*, 2014), https://theconversation.com/geotagging-reveals-wikipedia-is-not-quite-so-equal-after-all-30550

https://theconversation.com/geotagging-reveals-wikipedia-is-not-quite-so-equal-after-all-30990.
[22] See the film by Achal Prabhala, Priya Sen and Zen Marie, *People Are Knowledge* (2011) on oral citations in Wikipedia; https://en.wikipedia.org/wiki/File:People-are-Knowledge.ogv.
[23] Dimitra Kessenides and Max Chafkin, "Is Wikipedia Woke?", *Bloomberg Businessweek*, 2016. https://www.bloomberg.com/news/features/2016-12-22/how-woke-is-wikipedia-s-editorial-pool.
[24] Noam Cohen, "Wikipedia vs the Small Screen", (*The New York Times*, 2014), https://www.nytimes.com/2014/02/10/technology/wikipedia-vs-the-small-screen.html?_r=0.
[25] "The top 500 sites on the web" (*Alexa*, 2020), https://www.alexa.com/topsites.
[26] Amit Singhal, "Introducing the Knowledge Graph: Things Not Strings", (*Google Blog*, 2012), https://googleblog.blogspot.com/2012/05/introducing-knowledge-graph-things-not.html.
[27] The quotations in these sections are from a conversational essay we created with other friends, on epistemic resistance and revolution, called "Centering knowledge from the margins: our embodied practices of epistemic resistance and revolution", *International Feminist Journal of Politics* (2020), 22:1, 6-25, DOI: 10.1080/14616742.2019.1701515.
[28] Edmore Mutekwe, "Towards an Africa Philosophy of Education for Indigenous Knowledge Systems in Africa" *Creative Education* 6, no. 12, (2015): 1294-1305, DOI: 10.4236/ce.2015.612129.
[29] See equalitylabs.org.
[30] The Bahujan (literally "many peoples") are the "lowest" castes of the caste system.
[31] See dalithistory.com.
[32] See https://outreachdashboard.wmflabs.org/campaigns/dalit_history_month/programs.
[33] https://en.wikipedia.org/wiki/California_Gold_Rush.
[34] Reports from these convenings can be found here: https://whoseknowledge.org/type/report/.
[35] Whose Knowledge et al, *Our Stories*, *Our Knowledges*, 2018, https://whoseknowledge.org/resource/our-stories-our-knowledges-the-full-series/.

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