Metaphors of Decryption: Designs, Poetics, Collaborations

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Chapter Eight

Metaphors of Decryption

Designs, Poetics, Collaborations[1]

Hanna Musiol

"Yes, I have!"
"So you understand the [redacted] *."*
"I guess I do."
"But, anyway, [redacted] . . .
—Mohamedou Ould Slahi, *Guantánamo Diary* (2015, 301)

> Encryption is the conversion of data into a form, called a cipher, that cannot be understood by unauthorized people. Decryption is the process of converting encrypted data back into its original form, so it can be understood. Encryption and decryption should not be confused with encoding and decoding, in which data is converted from one form to another but is not deliberately altered so as to conceal its content.
> —TechTarget (2008)

In 2015, the Biloxi-Chitimacha-Choctaw tribe became "the first community of official climate refugees in the United States" (Hansen 2016) when they received $48 million from the U.S. Department of Housing and Urban Development (HUD) to move from their home, the Isle de Jean Charles in Louisiana. The island is predicted to "disappear under Gulf of Mexico waters" within fifty years as a result of human-induced environmental change and terraforming activity (Pendleton et al. 2010). Whereas the Biloxi-Chitimacha-Choctaw community was officially recognized as a victim of environmental degradation, tied, in part, to the effects of oil extraction and urbaniza-

tion, many other communities in the United States and worldwide (especially those living in urban areas[2]) have not been. Paradoxically so, since global environmental crises such as changing sea levels, decreasing access to drinking water and clean air, or other "burdens of pollution" affect the world's poorest communities not only directly but also frequently (Martinez-Alier 2002). However, the "incremental," "slow" nature of ecological degradation and economic violence that leads to such environmental and humanitarian crises makes them hard to narrate in a political and scientific discourse as urgent (Nixon 2011). Rob Nixon speaks of this "nonrepresentability" of the slowly unfolding "nonspectacular violence" as a major narrative and interpretative challenge in scholarly, political, and popular discourses alike.[3]

At other times however, illegibility and injustice are entangled differently. They may be, for instance, embedded in the democratic processes, institutions, and legal frameworks that are supposedly designed to prevent violence. Legal scholars of constitutional law such as Ricardo Sanín-Restrepo point out, for instance, that even such seemingly "open," common, democratic texts as modern constitutions actually "wilt democracy" because, without the help of experts, they are unintelligible, untranslatable, and inaccessible to common political actors (2016).[4] Many of those who work with censored or classified information—such as the excerpt opening this essay taken from Mohamedou Ould Slahi's (2015) account of captivity, interrogation, and torture, from which words, paragraphs, and, at times, entire pages were redacted before the 2015 public release[5]—or missing archives—such as the colonial archives with often barely detectable traces of enslaved people's stories—examine, if not lament, the difficulty of recovering, deciphering, and interpreting information that is lost or deliberately obscured (Hartman 1997 and 2007; Best and Hartman 2005; Lowe 2015; Maddock Dillon 2014; Stoler 2010; Slaughter 2015). And last, but certainly not least, in our digital global universe, often the information is literally illegible because of the format or code it is written in and/or because it requires non-human machine processing and a new understanding of "interpretation" and "reading" (Hayles 2006a, 2006b, 2012, 2014; Mauro-Flude 2015).

Joseph Slaughter, in his work on Jenny Holzer's enlarged silkscreens of declassified interrogation notes from Guantánamo (2015, 112), speaks of how "redactions" and erasures in declassified texts "unnarrate" them (113), making it thus impossible to comprehend the story, to make it legible. And yet, scholars, activists, poets, artists, lawyers, and designers have always attempted interpretation against the limits of cognition, of digital or colonial code, or archive, resisting the "unnarratability" of incomplete, illegible, inaudible, or incomprehensible evidence (Hartman 2007; Stoler 2010; Lowe 2015). In fact, the labor of critical theory—if we understood theory away from its textual location within one or two scholarly disciplines and think of it also as a political and multimodal intellectual practice (Anzaldúa 1990;

Chua 2015; Gluck and Lowenaupt Tsing 2009; Musiol 2015; Ngũgĩ 2012)—depends on challenging the fragmentariness of evidence, on piecing together heavily redacted texts, or broken codes, or on resisting the erasure impulses of disappeared archives. In other words, it depends on acknowledging that texts and culture always bear traces of multiple individual and institutional "authors."[6] What we know and interpret is a collective narrative effort requiring active collaboration of diverse interpretative communities of readers, lawyers, researchers, journalists, hackers, and others. So while "[t]here [is] no disputing the power of words and its relations to the powers of the world," it is imperative to investigate writing, words, and other meaning-making practices, through and against our monodisciplinary and often very analogue scholarly habits, and to ask, uncomfortably, across media and disciplines, who writes critical theory, in what code, and with whom (Gluck and Lowenaupt Tsing 2009, 9; Manning 2016; Mauro-Flude 2015, 292; Ngũgĩ 2012). What does critical and radical theoretical practice look and sound like in our times? More importantly, how is such radical practice performed? Some cultural practitioners argue that it is also time to consider the radical dimension of the affective, often haptic, and nontextual discourse, art and technology alike[7]—textiles or sculptures or even immersive design that make us feel the world through objects and understand it anew and critically. Similarly, it is key to consider the pedagogical practices that activate such radical uses of mixed-media theory, design, aesthetics in the service of social justice and emancipation (Brennan 2016; Earhart and Taylor 2016; Freire 1974 and 1993; Gallon 2016; Giroux 1988 and 2000; Hsu 2016; Sandlin, Schultz, and Burdick 2010; Sedgwick 2003).

DECRYPTION/ENCRYPTION IN THEORY[8]

The illegibility of the architecture of different knowledge systems has been a key preoccupation of radical critical work. This is at least one of the reasons why, more than a quarter of a century after the publication of Stuart Hall's ([1973] 1980, 1982) foundational cultural studies texts, we still, and often, turn to the nearly de Sausseurian binary logic of "coding/decoding" when dealing with the opacity of legal, technological, visual, textual, sonic, or scientific languages and econopolitical systems to grasp the ever-elusive and wide-ranging global design for injustice. Yet, several scholars point out that the very practice of critical theory not only has shifted foci (Rodowick 2014, 137) but has also media- and shapeshifted its way across fields with more emphasis on technology and hard sciences (Dunne and Raby 2013; Hayles 2012; Mauro-Flude 2014; Musiol 2015; Ramsay and Rockwell 2013). In *Elegy for Theory*, David Rodowick (2014, 137) aptly observes a prequel to this transformation. He suggests that mid-twentieth-century "[s]emiological

analysis . . . was meant to reverse this process in an interested model or simulacrum, and thus to contribute to a decryption of the cultural code, a denaturalization of the process of signification, and a critique of ideology." This approach, in Rodowick's interpretation, interestingly "tended toward science" but also toward "critical consciousness" (Rodowick 2014, 137; Freire 1974).

Most critical theoretical approaches celebrate "critical consciousness," variously conceptualized through decolonial, Marxist, new materialist, environmental, gender/queer, critical race, disability, and other prisms. Nonetheless, what is more paradoxical is that even their current "tending toward science" and technology, including the one present in this volume,[9] often appears to be poetic, metaphorical, and non-systematic. Precisely what the "hard" sciences and our volume's code word "decryption" appear not to be. In other words, even if critical theory, especially in the humanities and social sciences, draws upon the vernacular of *techné* with more caution, if not resistance, technology has now become a metaphorical source code for critical grammars. Encryption and decryption of power (Sanín-Restrepo 2016), a phrase which animates this volume, is one such example, gesturing, however consciously, toward the terms' multiple and ambivalent meanings that are hard to tell apart, toward radical, critical-human, creative interpretation and mechanistic, non-human algorithmic practice of meaning-making alike (Sanín-Restrepo 2016; Ramsay 2011; Hayles 2006a and 2006b).

Katherine Hayles shows what is at stake when we avoid "separating the Computational Universe as the means by which reality is generated from its function as a metaphor for understanding natural and cultural processes" and see it instead as "the complex dynamic through which the Computational Universe works simultaneously as means and metaphors[10] in technical and artistic practices, producing and also produced by recursive loops that entangle with one another and with diverse meanings of computations as technology, ontology, and cultural icon" (Hayles 2005, 4). My point here is not to engage in the debates about the primacy of technological over metaphorical meaning of encryption or decryption, or vice versa. As Ricardo Sanín-Restrepo observes in his examination of the radical potential of the term, the encryption/decryption dilemma is inherently "political" and is more than "deliberate concealment of language, which could be solved by simply applying methods of interpretation" (Sanín-Restrepo 2016, 8). I see radical and democratizing impulses in the technological and metaphorical uses of these keywords. Therefore, I do not challenge the metaphorization of technological discourse in critical cultural studies. After all, metaphorical thinking is now understood not simply or only as a poetic strategy but as a broader practice of "cross-domain mapping in the conceptual system" (Lakoff 1993, 203; Linley 2016). Such "cross-domain mapping" is ubiquitous in science, technology, law, design objects, foreign policy, and is an essential transdisciplinary

meaning-making practice (Lakoff 1993, 241–44).[11] Nor do I argue against the views that the terms' supposedly gendered technological precision and hardness is lost to the queering softness of cultural or creative arts approaches.[12] Following Hayles's line of thought, I want to reflect, instead, on what is lost and what is gained when such an unstable but inseparable pairing as encryption and decryption is deployed in the service of building a new emancipatory critical discourse at the beginning of a new century. How does decryption theory travel across fields and disciplines? What can we learn from the cultural, political, technological, and epistemological struggle over the interpretation of the term decryption, which is carried out now in the global public sphere of the United States, European Union, and international courts (Barrett 2017), in newspapers, in critical design (Dunne and Raby 2013), but also in poetry and prose (Witte 2009; Slahi 2015 and 2017)?

GENEALOGY AND AMBIVALENCE

To figure out whether or when encryption/decryption is good for radical critical theory, then, it is important to explore metaphors of encryption/decryption to see how this pairing, and the radical practice it envisions is made operative in, for instance, digital rights and (critical) design practices (Dunne and Raby 2013; de Montjoye et al. 2014; DeSoto n.d.[13]), which challenge the abuses of big data on a planetary scale, and in aesthetics (Witte 2009) and pedagogy. In particular, it is crucial to examine how the interconnected terms of decryption/encryption are understood, mistranslated, poeticized, and reinterpreted in critical law, literary studies, and digital rights movements in always contextual, situational, performative ways (Hayles 2006a and 2012; Mauro-Flude 2015; Sanín-Restrepo 2016; Siems in Slahi 2015; Witte 2009).

Encryption/decryption terminology has entered the critical discourse with gusto into post–Digital Revolution (Hayles 2006a, 2006b, 2012, and 2014; Ramsay 2011). However, from the onset, its meanings and genealogies, as much as its contemporary use and applications, have been complicated. In a technological sense, encryption is the transformation of a message's language and form to make it secret, illegible to unauthorized users. It literally depends on a process of scrambling, "the conversion of data into a form, called a cipher, that cannot be understood by unauthorized people" (TechTarget 2008). It implies, then, a conversion into a different language, so to speak, and a limiting of access to the original message only to authorized audiences using the correct key. (Decryption *does not* promise open access to all.) It also points to the sociality, materiality, and spatiality of the interaction: We encrypt information to protect it from someone or something; we send it somewhere; and we need material tools and a digital architecture to make the process take place. Decryption, on the other hand, "is the process of

converting encrypted data *back* into its *original* form [emphasis mine], so it can be understood" (TechTarget 2008). Here, the emphasis is on descrambling and the restoration of the intentionally concealed message to the original language, on restoring its legibility (to humans and machines), and on giving access to it only to chosen recipients. Encryption and decryption are partial stages of the communication process, and to see encryption and decryption as polar ends, disempowering and liberatory in all contexts, privatizing versus democratizing, is to ignore the complexity of how and where both processes operate, how interdependent they are, and how, in fact, in the technical sense, they are both needed to preserve information and control its flow.

Restricting access to information can, of course, be seen as a privatizing gesture, but in the twenty-first century, it also implies agency on the part of digital citizens who want to control how their data, their stories, are used (Barrett 2017; de Montjoye et al. 2014, 1–2, Wachter-Boettcher 2017).[14] Similarly, decryption might seduce critics with its promise of openness and a return of authenticity, until we look at its most ardent proponents, such as Amazon, whose decision to remove encryption from its Fire tablets drew criticism from the Electronic Frontier Foundation and from consumer rights activists and prompted it to restore the service ("Amazon" 2016). The right to encryption is protected most aggressively by privacy advocates and corporate entities, and it is attacked most aggressively by governmental, law enforcement, and intelligence entities (Buttar 2016). The 2016 standoff between Apple and the FBI (Buttar 2016) is the most recent example of a battle where the corporate giant, itself implicated in a host of hegemonic and exploitative practices—from the monopolization of knowledge, to the exploitation of personal metadata, to labor abuses and tax evasion in its outsourced global manufacturing and distribution networks—supported the rights to privacy and free speech as fundamental to our global digital citizenship. There was an immense pressure from law enforcement agencies such as the FBI, who used the 2015[15] U.S. San Bernardino terrorist attack to muster public support for its quest to secure unprecedented access to digital communication.[16] The government here pushed for decryption, while corporate global power players such as Apple, but also Google—hardly the heroes of social justice practices—rallied in support of encryption, a fact that can make deployment of either term for critical consciousness-raising purposes a challenge. There is, in other words, no consensus on the political import or leaning of the concept and practice of digital encryption and decryption. This leads to the paradoxical embracing of the concept by unlikely allies, corporations, and digital rights activists, those espousing the neoliberal economy and digital and human rights respectively, simultaneously, and incompatibly. These actors often unite in a struggle against governmental intrusions into individual freedoms, violations of privacy, and the right to free speech and security.

Sometimes however, the state and private and corporate players occupy opposing positions that are hard to tell apart.[17] In other words, while the pairing of encryption and decryption might sound strikingly similar to Stuart Hall's famous work on cultural encoding and decoding ([1973] 1980 and 1982), it rests on different conceptual and *technical* frameworks and *situational* uses.[18] Technologists remind us that even in their most literal, technical senses, encryption and decryption are not the same—one process involves "deliberate alteration . . . to conceal [the message's] content"; the other does not (TechTarget 2008). While decryption restores the unaltered "truth" of original data and gives access to it to authorized users, the ambition of critical theory is not just a restoration of the original—although recovery of suppressed evidence is one of its "archaeological" foci, too—but a transformation of the message, its radical reclamation and reinterpretation, and the empowerment and broadening of the audience.

The meaning of encryption and decryption gets even more complicated if we take a "long" view and follow the encryption/decryption trail back to at least World War II and the military cryptographic practices (Fernandez 2009, 470). This early history of programming and cryptology, from which we draw the shifty terminology in this anthology, points us then to the military and militaristic uses and origins of cryptology, revealing it as a military, rather than a purely civilian, practice (Khan 1996). At the same time, it also points us to the secret work of female codebreakers, unacknowledged for decades for their programming work (Lytton 2013; Fessenden 2015), and forced, at the conclusion of World War II, to quit their programming work and return home to partake in domestic labor.[19] This archival trip must, of course, lead us also to Alan Turing's groundbreaking contributions to network analysis, computational sciences, and cryptology along with the Bletchley Park women, and, in fact, to the very construction of the digital architecture that shapes the world we live in. Turing's work with computational practice and the "heretical theory" of "intelligent machines" (1951, "Intelligent Machinery: A Heretical Theory")[20] did not spare him from a conviction for engaging in sexual acts with another man. Being gay was criminal in the United Kingdom under Section 11 of the Criminal Law Amendment Act 188, and as a result of the verdict in *Regina v. Turing and Murray*, Turing underwent chemical castration in 1952. We owe, in many ways, the very practice and metaphors of digital encryption and decryption not only to the military but also to LGBTQ+ innovators to forgotten female laborers, whose removal from that history is paralleled by the erasure of the work of ethnic or indigenous Navajo, Choctaw, or Comanche coders.[21] These histories of exclusion are just as embedded in the computational discourse as is the material and digital practice of converting data into ciphers and their reconversion and as the popular uses of the term decryption to signify emancipatory impetus. Yet,

at the onset of the twenty-first century, invoking the radical theoretical potential of digital technologies and metaphors is overdue (Linley 2016).

LANGUAGE OF COGNITION

Critical theorists across media should acknowledge, as Hayles aptly does in "Traumas of Code" (2006a), that literally "language," including that of critical theory, "isn't what it used to be" (136). The language of theory has been transformed by buried and now partially uncovered histories, but it also operates within, and depends on, transmedia worlds. Hayles points to several paradoxes of the now ubiquitous contemporary computer-enabled communication. In her discussion of this phenomenon, to communicate and to understand, or "to cognate," as she calls it, require now for the human and machine language to operate together (2014).[22] Such communication depends on "dynamically interacting languages" including "so-called natural language, which is addressed to humans (human-only language); and computer codes, which (although readable by some humans) can be executed only by intelligent machines" (2006a, 136).[23] Nancy Mauro-Flude discusses another important paradox of the digital universe: the radical transformation of analogue roles assigned to the reader who reads and the text being read. While the users of digital platforms are often described as "active" agents, Mauro-Flude points that "regular unsuspecting computer users are people relegated into being 'read' only 'users' [unable] to participate in less cursory . . . 'writerly,' modes of communication [and interpretation] with[in] the digital culture realm" (2015, 4).

Moreover, while we are often unaware of the algorithmic language enabling our communication and behavior, we are always intimately, physically, and emotionally close to it and utterly dependent on it. This intimacy with, and the illegibility of, the non-human language leads many of us who use consciously and expressively mainly human-language writing (and not computer coding) to neglect the power that material objects and non-human languages do have as objects of epistemology. In any project committed to global justice, it is then not enough to resist this anthropocentric fetishism, or as Hayles calls it less judgmentally, "anthropomorphic projection" (2010, 5), or to celebrate the limitless possibilities of the "cognisphere"[24] of things. We must locate instances of socially empowering acts of such critical human and non-human cognition.[25] Acts, which may be taking place in the form of analogue writing but also in a different code or cipher, to invoke TechTarget's definition again (2008).[26] There is much to be said about how familiar languages and "words stabilize our understanding" of the world (Lowenhaupt Tsing in Gluck and Lowenhaupt Tsing 2009, 11), but this anchoring, stabilizing comfort of the familiar theoretical discourse has also been blamed

for homogenizing the cultural heritage of the world, if not actually seen as the very tool facilitating intellectual and political disempowerment (Said 1993; Santos 2007, 2014; Ngũgĩ 2012). Like Carol Gluck and Anna Lowenhaupt Tsing, in their traveling theory and translation project, which followed the meaning of cultural code words across languages as well as across national and geopolitical boundaries, this chapter embraces this discursive and disciplinary discomfort and dislocation. This dislocation or disciplinary disarticulation or mistranslation is, I would argue, a critical attitude, a feeling, necessary for any reconceptualization of radical and "globalectic," but not globalizing, critical theory (Ngũgĩ 2012).[27] It is as important as metaphorical "cross-domain" thinking (Lakoff 1993, 203).

Again, my point in delving into computational practices and the discourse and history of cryptography, therefore, is not to *correct* the definitions of encryption and decryption in a technical sense. (In fact, I will return to the question of poetics and metaphorical uses of these terms later.) Rather, my interest lies in uncovering their complexity and ambivalence as tools of theory across fields and geopolitical spaces, especially for the purpose of criticism with anti-hegemonic, decolonial ambitions. What does the complicated history of its design and heritage tell us about its rootedness in gendered and queer intellectual history and the military's crucial role in its development on a mass and global scale? What material, political, and cultural practices does encryption enable and disable? And last but not least, what kind of tool does it become, and in whose hands?

JUST DESIGNS

If traditional, textual philosophy and critical discourse are not always adequate tools to grapple with the complexities of power asymmetries in the global world, neither are human–nonhuman information producing practices inherently emancipatory. From digital archives springing up around the world and transforming access to intellectual heritage across the globe, to the ubiquitous availability of social network tools, there is much to celebrate when it comes to new "networlds" emerging in postcolonial, environmental, black, feminist, and queer studies interpretative communities (Mauro-Flude 2015; Gallon 2016; DeSoto n.d.). And yet, research reveals that many digital projects are biased and exclusionary (McPherson 2012; Wachter-Boettcher 2017), and if unsupported by large, powerful cultural and information science institutions—universities, heritage organizations, publishing houses—are quite ephemeral[28] and vulnerable to digital obsolescence. Other scholars point out that one of the most invisible and perhaps least emancipatory forms of global information production involves voluntary and involuntary digital mobility metadata collection and privatization (Barrett 2017).[29]

Metadata, in particular one's unique "mobility traces"—cellphone geospatial pings, credit card swipes, browsing data—is the most ubiquitous form of collective human–machine scripture, with astounding profit-generating and behavioral-modeling capabilities (de Montjoye et al. 2013 and 2014). Mass amounts of geospatial metadata are almost instantaneously privatized, traded among corporate, commercial, and governmental agencies, and classified. Moreover, metadata is mostly inaccessible to those who produce it, and while it shapes one's social, political, and consumer habits, most have little understanding of how to control it (Mauro-Flude 2014; Wachter-Boettcher 2017). Finally, while supposedly anonymous, geospatial metadata is so unique that it is not really anonymous (de Montjoye et al. 2013 and 2015), and big-data researchers and privacy advocates have been successful in "re-identify[ing] 90 percent of individuals" using seemingly anonymous "credit card records for 1.1 million people" (de Montjoye et al. 2015, 536 and 539). They also concluded that having access to just "four spatiotemporal points [is] enough to" identify a supposedly anonymous user, that "knowing the price of a transaction increases the risk of reidentification by 22 percent," and that "women are more identifiable than men in credit card metadata" (de Montjoye et al. 2015, 536 and 538). Their research project revealed yet new political and economic vulnerabilities of digital global subjects, as well as the gender disparities between how differently and unequally women and men inhabit digital worlds.

One does not have to be a lover of dystopian fiction to understand the political and economic implications of the identifiability of these large metadata sets and the impact these may have one's physical and socioeconomic mobility, not to mention the hazards to physical safety.[30] Among the contemporary ethicists in the fields of IT, legal scholars and privacy advocates urge that "a New Deal on data is needed" (OpenPDS/SA, "Philosophy" n.d.),[31] but their critical practices in response to digital rights crises literally take on different forms, and range from legal solutions and property law—the "let's own our data" movement[32]—to new material tools, empowering systems, prototypes, designs (such as openPDS and SafeAnswers or MediCapt[33]). Most importantly, here is the suggestion that "any of the initial and critical steps towards individuals' data ownership are technological" (OpenPDS/SA, "Philosophy" n.d.) and cannot be solved solely at the juridical level. In other words, in the service of protecting digital narrative rights and, ultimately, other democratic civil and human rights, privacy and property law and technical and design solutions are deployed to protect one's right not only to one's own stories, to fair compensation for the "intangible" digital and narrative work performed, but also to building new networks of solidarity. Perhaps more vitally, technology itself becomes a medium of critical theory (DeSoto n.d.; Mauro-Flude 2015). Thus, it is important to recognize the role and the work of programmers and designers as potential allies of social

justice practices, and as creators of critical theory, in ensuring the protection of digital and narrative rights and privacy rights and in supporting economic fairness.[34] This, in turn, requires that we recognize "design" not only as a tool of "social dreaming" (Dunne and Raby 2014) but also as a vehicle for a radical critical and political practice (DeSoto n.d.; Mauro-Flude 2014), and often as a remedy to legal and political disempowerment.

POETICS, COLLABORATIONS, AND "IRREPRESSIBLE" KNOWLEDGE

It may sound decadent to conclude a chapter on decryption, emancipation, and critical theory with a reference to aesthetics, literature, and even poetry. On the one hand, literature and the arts and their practices of aesthetic evaluation, in schools and heritage institutions alike, have negatively affected communities that are politically, culturally, or economically marginalized, and the aesthetic evaluation as practiced within arts and the humanities is often "feudal," and "segregative" (Ngũgĩ 2012, 60).[35] Aesthetics, like law, adds value and power "to this" and not "to that" thing, idea, evidence, person, space, and/or culture (Siebers 2010; Musiol 2013). This process is not abstract, and the conditions under which concrete objects, environments, people, and their cultural lore become worthy of protection unearth the troubling, colonial architecture of this valuation system. However, aesthetics like technology is neither always empowering nor disempowering but "always a contradictory, self-undoing sort of project" (Eagleton 1990, 2). Dominant and marginalized political actors engage with their political realities using diverse aesthetics, metaphors, rhetorics, registers, and genres—in graffiti, in a legal memo, in a street demonstration, in fashion choices, in a petition, in an online meme, or in the Constitution. If an aesthetic practice can "disappear" violence or injustice in the popular imagination, it can also "unlock / Encoded ghosts of languages suppressed" (Witte 2009, 45). Thus, a critical intellectual practice needs to grapple with legal and technological remediation and aesthetic literacy as well.[36]

George Witte's poetry collection, *Deniability* (2009), about the American and now global "war on terror," fosters such aesthetic literacy. His poems about the governmental use of torture in its interrogation program show the strategic role of aesthetics in the perpetration of injustice, specifically the coinage of new words and definitions, which legalized certain forms of violence and torture soon after 9/11 "rip[ped things] from skins, / words from definitions" (Witte 2009, 13). What enables Witte to reflect on the existence of transnational torture networks (the Abu Ghraib abuse scandal, the Iraq occupation, extraordinary renditions, and the increased global surveillance and domestic racial profiling) through rigid AABB rhymed couplets or via

generic stanza patterns is not, in 2009, access to classified documents, to interviews with governmental officials who authorized torture, "rented out" secret prisons outside of the United States, and elicited the help of psychologists and medical doctors to design the least detectable and nonlethal methods of torture. Witte, like others outside the chain of command, has no access to such data. Instead, what gives his poetic work critical, emancipatory force is the way Witte uses the aesthetics of popular and legal language of the war on terror. He both echoes, disturbs, and descrambles the military newspeak, metaphors, and political and business oxymora, such as hearts and minds, master plan, just cause, rendition, friendly fire, if you see something, say something, failure to comply, person of interest—all titles of his poems—which have euphemized systemic violence.[37] His poems deploy these political and poetic clichés, the "cluster-fuck / no code can disentangle" (2009, 83), paradoxically, managing the revealing the "unmaking roar" (Witte 2009, 13) of the war on terror in the process. It is not, then, that torture belongs to the realm of the unspeakable or illegible in the popular imagination, or that documents detailing its use were still classified at the time. It is that torture is spoken of in a particular way, Witte implies. His poetic forensic historiography reveals how formal, aesthetics choices turn legal memos, letters, and newspapers articles into real pain; how supposedly immaterial stylistic decisions turn into very material violence; how easily words and visuals are summoned to occlude, justify, and naturalize torture. Aesthetic manipulation, Witte's poems argue, normalize torture for the public, because, as Peter Brooks tells us, it is a particular "telling of the story that creates the interpretive community" (1990, 131). Torture is possible in part because it is narrated in genres and aesthetics that conceal it (for example, when "torture" is replaced with "enhanced interrogation techniques"), bury the tortured body, bury the transnational carceral infrastructure, and activate safe associations between torture and business efficiency, commonsense logic, keywords firmly rooted in the national ethos and sensibilities. In this context, encryption/decryption metaphors, in a technical sense, seem of less use, as they imply an existence of a stable, symmetrical system that allows for the original data to reach the intended user(s). However, in the reality Witte describes in his poems, the "System Crashes" (2009, 13), and senders and recipients of encrypted or classified data share neither the willingness, the key, nor the symmetrical position within the techno-legal infrastructure to communicate meaningfully. And yet, Witte's poetic "extraordinary rendition," which kidnaps phrases and jumps aesthetic and cultural "domains" in which these words operate "metaphorically," does declassify injustice. *Deniability* makes violence legible, despite not having breached barriers to classified information, by cultivating a critical aesthetic sensitivity or consciousness of its readers.

The 2015 redacted edition of *Guantánamo Diary*, a book written by Mohamedou Ould Slahi, a Mauritanian victim of extraordinary rendition, offers a chilling, firsthand account of the governmental deployment of torture and human rights violations that Witte alludes to in his work. It is also a transformative book about readers. Slahi, who was never charged with a crime during his fifteen years of captivity,[38] wrote his text in 2005 while in Guantánamo, first, as a series of letters to his lawyers "so that they could know my story and defend me properly" (2017, xxxviii). Yet, he admitted that he "soon . . . was writing for other readers . . . who could never set foot in Guantánamo," because he "believed in books and in the people who read them" (2017, xxix). The first edition of *Diary* was published in 2015 with 2,500 governmental redactions, a decade after Slahi handwrote it, and only thanks to years of litigation did the U.S. government release the manuscript for print. Essential to its publication was also the book editor's, Larry Siems, and his painstaking, magisterial effort[39] to complete Slahi's evidentiary work, despite not being able to communicate with Slahi during the editorial process (Siems in Slahi 2015, xi). *Guantánamo Diary* is, then, not only a powerful testimony of a torture survivor, one that George Witte was yet to learn about, of a failed, immoral legal system, and a penetrating account of the global carceral regime and injustice[40] but also a powerful invocation of a different community of readers.

The 2015 *Guantánamo Diary* frustrates the reader's efforts to read for plot, to find out who did what and where, especially in parts where entire paragraphs and pages have been blacked out by the text's multiple censors (as in Slahi 2015, 301). Also, it is impossible to see the text as solely Slahi's, as every page of his nearly 400-page book[41] bears traces of the authorial and editorial power of those "other authors" inflicting violence on him. And yet, Slahi's narrative and voice are not lost, even when the narrative is most obscured and fragmented. *Diary* teaches us something crucial about emancipatory allegiances, in how it imagines and brings to life a different audience. After Slahi's release from Guantánamo, Slahi and Siems worked on a new edition of the book to restore the text that had been censored in 2015. While they felt it was impossible to restore all redactions to the original text (Slahi 2017, xvii–xx and xlix–li),[42] they wanted to "repair this broken text" to "see things that someone wanted hidden" (2017, li). And yet, both the "broken" 2015 and the restored 2017 editions of *Guantánamo Diary* need to be recognized equally as epic feats of narrative resilience on Slahi's part, along with the parts played by Slahi's pro bono lawyers, international publishers, and Larry Siems, the book's editor. In the end, the narrative is there, even when it seems it is not (Slaughter 2015, 109), because of that community of readers Slahi's writing called into being. Larry Siems rightly calls it "irrepressible work" (Slahi 2015, 376).

CONCLUSION

When "doing/making critical theory," we question which conceptual framework we adopt, or which foci or concern we make central or urgent in critical scholarship. However, we must not forget the ways in which our own entrenchment in our disciplinary habits of thinking, researching, interpreting, collecting, and performing knowledge inhibit us. To attempt or share "another knowledge" (Santos 2007), we need to scrutinize the methods and technologies we deploy to access information, to, at some points, encrypt/decrypt data, and, at other times, to poeticize, or to build new tools, designs, or forms of theory. In other words, if the task of critical scholarship is to interrogate the ways in which, for instance, seemingly "open" legal instruments, ritualized public procedures, or deliberately classified protocols obscure inequalities and disempower vulnerable social subjects and to "declassify" theory (Ahmed 2017; Appadurai 2013; Ngũgĩ 2012, 61; Sanín-Restrepo 2016), it is important to first acknowledge—as we search for emancipatory grammars, tools, and metaphors—that this radical critical commitment is not innate or limited to this or that particular field, method, technology, or even to textual scholarship, in particular. Perhaps, more importantly, we need to develop habits of intellectual reciprocity, generosity, and critique (Ahmed 2017; Anzaldúa 1990; Appadurai 2013; Manning 2016; Slahi 2015 and 2017) that would allow us to participate in new interpretative communities (not limited to advanced theory classes at the world's leading universities).

In his acknowledgments to *Guantánamo Diary*, Larry Siems writes that he is "forever indebted to Mohamedou Ould Slahi for the courage to write his manuscript, for the integrity, wit, and humanity of his writing, and for the faith he has shown in all of us, the reading public, in committing his experiences to print" (in Slahi 2015, 379). These words not only are moving but highlight the interconnectivity of diverse cultural actors. They point out the power of different interpretative publics of teachers, students, literary scholars, linguists, historians, philosophers, political scientists, computational scientists, casual readers, and lawyers as members of global "performative commons" (Maddock Dillon 2014). Such global citizens, who challenge the limits of legibility and access, play a crucial role in interpreting the work entrusted to them, in piecing together the information that has been withheld, that is distorted, encrypted, and for which they share no key, or that seems so fragmentary and illegible as to be beyond our political consciousness and cognitive capacity. Their power rests not only in their ability to restore material evidence to their rightful or authorized recipient but on the participatory processes that encryption/decryption or other forms of "reflective activism" and theory-building may spur (Martinez-Alier 2002, xi). Siems's words also remind us that none of us, scholars, editors, theorists, lawyers, and activists alike, can engage in a critical practice in support of justice on our own. To

make and share "irrepressible" knowledge (Siems in Slahi 2015, 376), we need what Donna Haraway calls "queer confederacies" and "criminal conversations" across communities, media, codes, technologies, disciplines, and the human–nonhuman divide (Haraway 2008, 161). We need machines, metaphors, and collaborations.

NOTES

1. *Acknowledgments:* I am indebted to critical theorists, teachers, technologists, scholars, and designers Kari Kraus, Sara Ahmed, Nancy Mauro-Flude, Henry Mainsah, Radhika Gajjala, Alex Gil, Erin Manning, Andreas Philippopoulos-Mihalopoulos, and Fred Moten, who all straddle disciplinary divides, and who realize the potential of critical theory to take on new genre and media forms in support of justice and emancipation. I also thank Yves-Alexandre de Montjoye, for generously sharing his research with my graduate students at Simmons College; Theoharis Theoharis, for discussing algorithms and encryption/decryption; Larry Siems, for extraordinary encounters with my students and refugee academics in *Of Borders and Travelers* at NTNU; colleagues at the ASLCH and ACLA conferences, for discussing early versions of this project with me; and Kristen Ebert-Wagner and Celina Stifgell, for editorial and proofreading help.

2. The drinking water contamination scandal in Flint, Michigan, is a case in point. See *Flint Water Advisory Task Force Final Report* (2016); on spatial and environmental justice, consult Soja (2010) and Philippopoulos-Mihalopoulos (2015).

3. Scholars and educators across fields now go so far as to argue that various literary and visual arts forms of science fiction (sci-fi) and climate-fiction (cli-fi)—dismissed in scholarly and scientific discourses as fiction—actually have much greater capacity to narrate the invisible and "slow" forms of violence and injustice and can activate popular support around initiatives that address it. On the importance of cli-fi in education, see Fernandes (2016). For a discussion of the pedagogical uses of fiction in law and literature, see *Just Fiction* (Musiol 2016).

4. Ricardo Sanín-Restrepo first developed the argument about the need to decrypt the constitution in his 2012 collaboration with Gabriel Méndez-Hincapíe (Méndez-Hincapíe and Sanín-Restrepo 2012). While the article was not published in English, the authors provided me with an English translation of their own.

5. The blacked-out quote (Slahi 2015, 301), we learn in the 2017 restored edition, is Slahi's description of a polygraph test he took, and which he passed, further confirming his innocence (Slahi 2017, 297–302). It is one of many censored out sections in the book.

6. Bruno Latour (2004, 2014), Kathleen Hayles (2006a, 2006b, 2012, 2014), Stephen Ramsay (2011), and Ramsay and Geoffrey Rockwell (2013) are thinkers particularly interested not only in institutional authorship but in the storytelling or cognitive agency of inanimate things, tools, and genres.

7. For the politics of gestures and touch, see Manning (2006 and 2016); also, consider Nancy Mauro-Flude's reclamation of the eighteenth-century legal "paraphernalia" concept of women's own property (as opposed to dowry) in electronic-performance tools for transgressive feminist practice (2015); for uses of architecture and "hactivism," see DeSoto (n.d.); for sculptural and textile mappings, see Miron (2015b); for immersive designs, see Svanæs (2013); for critical design, see Dunne and Raby (2013).

8. See Benjamin (2005, 101–33).

9. Interestingly, in popular and scholarly discourse, technology, alongside neoliberal economic theory, has usurped the status of the discourse of the future, possibility, and empowerment.

10. On the paradoxical use of environmental, organic, seemingly "natural" metaphors to describe artificial digital worlds, see Linley (2016).

11. The understanding of the poetic, metaphorical, and the scientific as distinct realms and polar opposites has been debunked by Lakoff (1993). For a classic overview of how metaphori-

cal practices undergird scientific methods, politics, and everyday lives, see Ortany (1993) and Lakoff and Mark (1989). Also, see Ricoeur (2003).

12. Donna Haraway's work exemplifies how to avoid the pitfalls of such dichotomies. Consider, for instance, her 1976 *Crystals, Fabrics, and Fields: Metaphors of Organicism in Twentieth-Century Developmental Biology* or "Otherwordly Conversations" (Haraway 2008). See also Tsing et al. (2017).

13. See links to his "hackitectural" projects in different media on his website.

14. While the article was written before the 2018 Cambridge Analytica revelations, the specters of its practices haunt this chapter.

15. On December 2, 2015, a mass shooting at the Inland Regional Center in San Bernardino, California, left fourteen people dead and twenty-two injured. After an unsuccessful effort to make Apple unlock the shooter's encrypted phone, the FBI managed to access the phone without Apple's compliance (Zapotosky 2016).

16. It is important to note here that this case has raised other big questions, namely access to and/or "ownership" of information. Does the data belong to the owner of the device? To the user of the device? To the maker of the device or software? Or to society at large?

17. Consider, for example, the paradoxical title of Buttar's article on the subject, "Apple, Americans, and Security vs. FBI."

18. Hall's insistence on the need to develop critical literacy across media and disciplines and on scholarly critique of culture away from accepted, hegemonic, practices of interpretation is, of course, still at the core of cultural studies, and of critical legal studies' deployment of both decoding and decryption as metaphors, but here is where the similarities between the two concepts end.

19. This history is just beginning to receive public attention, as demonstrated by popular films about Joan Clarke, "the woman who cracked Enigma cyphers with Alan Turing" (Miller 2016).

20. The Turing Digital Archive provides untranscribed access to previously unpublished material, including his lecture notes and correspondence.

21. For security studies, cryptography, and the contributions of indigenous person to the history of cryptology, see Adkins (1997), Khan (1996), Meadows (2002), and Walker (1983).

22. Note that Hayles distinguishes between "thinking," which is "what conscious entities such as humans (and some animals) do, and 'cognition' as a broader term that does not necessarily require consciousness but has the effect of performing complex modeling and other informational tasks" (2014, 201).

23. Note that the legal definition of the human and computer language distinctions and entanglements are more murky, with U.S. courts using the Digital Millennium Copyright Act (DMCA) in cases involving Edward W. Felten, a computer science researcher barred from conducting research on digital watermarks used by creative industries (Euben 2002, 78), or Eric E. Corley, a hacktivist and digital rights proponent, who argued that while less "expressive than functional," "computer code is and is not speech that would require constitutional free speech protections." For more and an overview of both cases, consult Euben (2002) and visit the EFF website at eff.org.

24. Thomas Whalen (qtd. in Hayles 2006a) uses this term "to include many different kinds of human-machine cognitions, including wired, wireless, and electromagnetic communications" (n.p.).

25. See DeSoto (n.d.).

26. For more on transmedia theory, see Gluck and Lowenhaupt Tsing (2009), Dunne and Raby (2013), and Musiol (2015).

27. I allude here to scholars of affect, politics, and law, such as Sarah Ahmed, Lauren Berlant, Erin Manning, and Andreas Philippopoulos-Mihalopoulos.

28. For Aaron Swartz's iconic texts on digital rights, visit the "Aaron Swartz Collection" (n.d.).

29. For a different account of the relationship between "power-knowledge," the market, and the machine, see Sanín-Restrepo (2016, 117).

30. On drones and the so-called death by metadata, see Scahill and Greenwald (2014). On "toxic tech" more broadly, see Wachter-Boettcher (2017).

31. For Aaron Swartz's iconic texts on digital rights, visit the "Aaron Swartz Collection" (n.d.).

32. However, they also redefine the meaning of ownership, suggesting that it "should be thought of according to the old English common law [defining d]ata ownership . . . as the rights of possession, use, and disposal instead of a literal ownership" (OpenPDS/SA, "Philosophy," n.d).

33. OpenPDS/SA is a "metadata management framework which allows individuals to collect, store, and give fine-grained access to their metadata to third parties" (OpenPDS, "OpenPDS/SA: Personal Data with Privacy"; "Philosophy," n.d.). See de Montjoye et al. (2014). Consider also "human rights technology" apps such as MediCapt, developed to collect forensic evidence in sex violence cases occurring in low-resourced areas (n.d.).

34. Postcolonial digital humanities and critical internet are of key importance here. See McPherson (2012), Brennan (2016), Posner (2016), Risam (2016), and Gallon (2016).

35. Boaventura de Sousa Santos (2014) calls this academic contribution to injustice "epistemicide."

36. Jacques Rancière complicates this point but suggests that illegible, non-sensible aesthetic styles are read as politically ineffective "noise." For him, then, a critical and conscious aesthetic interpretation is a form of political close listening and seeing to the illegible. Also, see Musiol (2013).

37. Interestingly, even the cover of the book foreshadows Witte's generic violations in poetry. The cover features a painting of a blindfolded Abu Ghraib martyr by Fernando Botero. In Botero's visual "extraordinary rendition" however, the martyr resembles a Christ figure but one painted by a Baroque painter. The fleshiness, robustness, and opulence of his body contradicts the more ascetic representational conventions of martyrdom.

38. Slahi was cleared for release from Guantánamo by the decision of Period Review Board on July 14, 2016, and returned to Mauretania on October 16, 2016.

39. This work is visible in the 2015 book's introduction, footnoted annotations, timelines, and numerous notes. Slahi's access to outside sources was limited, but during his torture, he was purposefully deprived of the information about the time and location of his captivity. Together with others, Siems pored over the official and popular archives to locate missing or redacted parts of the narrative to provide contextual evidence redacted from Slahi's manuscript in a parallel narrative of annotations and a timeline of detention (in Slahi 2015, ix–x).

40. The text that shows that the torture inflicted on Slahi was not just physical acts but a gruesome, collective, narrative practice. Slahi's captors, torturers, and U.S. legal counsels authorized the brutal extraction of his story while shaping his confessions. Those immediately involved in torturing him wanted a particular kind of story. To achieve that, they inflicted more or less torture, provided and withheld food or medication, deprived Slahi of sleep or allowed him to sleep uninterruptedly, sexually abused or befriended him, depending on whether his story fit their content and genre expectations (Slahi 2015, 61, 239, 244, 249, 255, 277, and 288).

41. The original manuscript was 466 pages (Siems in Slahi 2015, xi).

42. The original, uncensored manuscript remains classified (Siems in Slahi 2017, xviii).

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