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## New Digital Worlds

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## Chapter 2



# Colonial Violence and the Postcolonial Digital Archive

One significant dimension of postcolonial digital humanities is rethinking the role of representation in digital archives and the design methods subtending them. Digital archives have been embraced for their promise of openness and access to knowledge, and they seem to offer possibilities for democratizing collections and expanding the digital cultural record. This is particularly the case as new open-source tools and technologies facilitate collaboration between archivists, librarians, museum workers, students, and community members.

In direct contrast to the well-understood link between material archives and colonial power, digital archives are often heralded prematurely for their contributions to the historical and intellectual project of decolonization. They are positioned as opening up archives and creating spaces where counter-narratives or correctives may proliferate. These digital archives, in their contributions to the digital cultural record, seem to be a space in which the possibilities of practicing history from below might be realized or where communities whose stories are not sanctioned in institutional archives might be able to represent themselves. However, the promise of digital archives is far from guaranteed, since traces of colonial violence appear within them. In the context of the digital cultural record, digital archives hold both the risk of reaffirming colonial discourse and the promise of challenging it through the development of new archives and design practices.

Among postcolonial approaches to digital humanities, there are significant opportunities to develop digital archives that remediate colonial violence, write back to colonial histories, and fill gaps in knowledge that remain a legacy of colonialism. As the case of the British Colonial Office archives suggests, digital archives are always limited by what has and has not been preserved in the cultural record. However, when working with materials we do have, as the examples of the Early Caribbean Digital Archive and the Bichitra Online Tagore Variorum suggest, an essential part

of world making in digital humanities is the development of postcolonial digital archives. These projects exemplify the need for digital archives that resist colonial violence in content and method, mediating in the gaps and silences in the digital cultural record that can be filled with extant sources. Born-digital sources that are ever in the process of coming into being are also essential parts of the digital cultural record. As the social media archive and analytics system R-Shief suggests, postcolonial digital archives must contend with these born-digital materials that resist colonialism and imperialism. Together, these projects illuminate the importance of ensuring that new digital worlds complicate the dominant ideologies that remain within the digital cultural record in the wake of colonialism.

### Archival Violence and Digital Humanities

The appeal of postcolonial digital archives stands in contrast to the stark realities of archival practices that are indelibly marked by the history of colonialism. Like material archives, digital ones are defined as much by the objects within them as by those that are not. However, the development of print archives has repercussions for the interventions made possible by digital ones. This phenomenon is evident in tensions between presence and absence in the archives of the British Empire from the British Colonial Office, which was known for its meticulous record-keeping. These materials—many of which have been declassified under British laws that promote access to cultural heritage—include histories and records, maps and gazetteers, and census and other statistical documents that were essential to governing British colonies and producing colonial subjects. As Sandhya Shetty and Elizabeth Jane Bellamy argue, the colonial archive is part of the British Empire’s “increasing reliance on administrative, institutional ‘development’ (educational, legal, and so on) to ‘produce’ colonial subject formation.”<sup>1</sup> The material tells the story of British colonialism from the perspective of the colonizer, unmatched by accounts from colonized subjects, which indicates one register of omission from the archive of colonialism. As the artifacts within this archive are increasingly being digitized as part of Britain’s commitment to making its digital cultural heritage accessible, they are facilitating public understanding of the British Empire.

Revelations about the management of colonial records after the decline of the British Empire raise further questions about the integrity of these archives. In November 2013, the National Archives of Britain revealed a secret stash of declassified colonial documents that had been hidden

illegally by the Foreign Office for decades past their allotted thirty-year suppression period. The records include:

Monthly intelligence reports on the “elimination” of the colonial authority’s enemies in 1950s Malaya; records showing ministers in London were aware of the torture and murder of Mau Mau insurgents in Kenya, including a case of a man said to have been “roasted alive”; and papers detailing the lengths to which the UK went to forcibly remove islanders from Diego Garcia in the Indian Ocean.<sup>2</sup>

Among the horrors revealed in the million-plus files are tales of bonfires and burials of documents at sea to systematically destroy colonial records. This Orwellian “Operation Legacy” spawned diplomatic missions to British colonies on the eve of independence that were charged with destroying evidence that, in the words of colonial secretary Iain Macleod, “might embarrass Her Majesty’s government . . . embarrass members of the police, military forces, public servants or others, e.g. police informers.”<sup>3</sup> The missions were planned in excruciating detail: “The waste [burnt documents] should be reduced to ash and the ashes broken up . . . [records disposed at sea] packed in weighted crates and dumped in very deep and current-free water at maximum practicable distance from the coast.”<sup>4</sup> News of the records first came to light during a trial in which Kenyan men and women alleged mistreatment during the Mau Mau revolt against British colonial rule.<sup>5</sup> British historians, in particular, were enraged by revelations about the secret documents. As the Cambridge professor Anthony Badger, who was appointed to oversee the declassification, notes, “It is difficult to overestimate the legacy of suspicion among historians, lawyers and journalists”<sup>6</sup> that has resulted from news of the hidden and destroyed documents. The disclosure of these records reminds us that the imperial archive remains with us, in both literal and figurative terms. This episode reiterates that the cultural record is never whole. As the move to digitize declassified documents continues, there will continue to be gaps in the archives, and the digital cultural record will always be incomplete, ruptured by the politics of empire.

As this episode suggests, the promise of digital archives for remediating the absences in the digital cultural record is always beset by the limits of preservation and representation. While the effects of colonial violence on the archives of the British Empire are quite obvious in this case, scholars of postcolonial studies have examined the insidious ways that texts and archives have played a role in colonial violence as well. Suvir Kaul argues that colonial knowledge production was “crucial to the development of

economic, anthropological, and historiographical paradigms.”<sup>7</sup> It played a role in creating what Kaul calls a “world-picture” from the perspective of the colonizer.<sup>8</sup> This world-picture helped create the colonial structures that influence both the cultural record and the contemporary world. Ann Laura Stoler describes colonial archives as “condensed sites of epistemological and political anxiety . . . transparencies on which power relations were inscribed and intricate technologies of rule in themselves.”<sup>9</sup> Ranajit Guha makes the case that these archives are political distortions that inscribed colonialism in the cultural record by interpolating colonial subjects as irrational, seditious, and in need of rule.<sup>10</sup> Antoinette Burton frames the incompleteness of the archive as complicit in the subordination of colonized people.<sup>11</sup> This results, as Catherine Trundle and Chris Kaplonski suggest, from the role of archival practice in creating material and discursive relations.<sup>12</sup> Such a phenomenon is possible, Nicholas Dirks contends, because the colonial archive “produces, adjudicates, organizes, and maintains the discourse that becomes available as the primary texts of history.”<sup>13</sup> This is not only a matter of archive contents but also what Michel Foucault calls the archive’s “system of its enunciability,” its role in producing and legitimating discourse.<sup>14</sup> The digital cultural record is thus at risk of being a mirror of a colonial world-picture, another representation of colonized subjects from a colonial perspective that authorizes imperialism.

If the archive itself is a technology of colonialism, can the creation of new archives resist reinscribing its violence? Verne Harris positions archiving as a form of “justice and resistance to injustice,” while Cheryl McEwan argues that resistance is possible through the proliferation of alternative postcolonial archives based on material that is excluded, bringing in narratives that expand belonging.<sup>15</sup> Engaging in this work in the digital milieu has promise for challenging the epistemic violence in which archives participate, even with the knowledge that the digital cultural record will never be “complete.” The proliferation of new world pictures—new worlds—in the digital cultural record is one way of mediating this irreparable damage.

And yet, traces of colonial violence persist in the digital cultural record, generally not as the product of intent, but as a reflection of the pernicious role of colonial discourse perpetuated in the enterprise of knowledge production. An example of this appears in the project Networked Infrastructure for Nineteenth-Century Electronic Scholarship, or NINES, a digital humanities initiative that brings together nineteenth-century scholarship: journals, peer-reviewed digital humanities projects, and other digital collections.<sup>16</sup> Scholarly aggregation sites like NINES are important contributions to the digital cultural record. They create

networks of digital scholarship, they pool resources, prevent duplication of scholarship, and offer peer-review mechanisms for inclusion that validate nineteenth-century digital scholarship as “scholarly.” As such, NINES plays an important role in the infrastructure of digital humanities. It serves as an online hub for scholarship and digital texts, participates in cultures of open access, and provides a model for scholarly production in digital humanities. However, the authors and texts aggregated in NINES primarily derive from the United States, United Kingdom, and, to a lesser extent, Canada. Within these national contexts, the material housed in NINES privileges canonical writers and voices that hew to the norms of the dominant national culture of the nineteenth century. A look at the digital projects featured on the front page indicates the inclusion of the likes of Dante Gabriel Rossetti, Herman Melville, Willa Cather, Matthew Arnold, Edgar Allen Poe, and William Blake. The sole exception to the canonical status of authors in this group is the African American writer Charles Chesnutt. The project thus creates the impression that the sum total of Anglophone literary production in the nineteenth century comes from the United States, United Kingdom, and Canada—and from a narrowly prescribed group of primarily white writers within that.

These omissions appear, unseen in their absence, in NINES, which does not include nineteenth-century Anglophone writing from Great Britain’s colonies and underrepresents black and indigenous voices. Therefore, the material represented in NINES is inextricable from both British colonialism and the settler colonialism that was a key feature of the nineteenth century in the United States and Canada. Yet its connections to colonialism have gone unremarked. Colonial violence in NINES appears in its reinscription of colonial legacies in digital form and the rehearsal of the colonial dynamics of knowledge production that have othered large swathes of the human population. The erasures within NINES are examples of colonial violence that persists in digital humanities scholarship. And yet, this is not only a repetition of colonial violence within the cultural record; rather, it fosters that violence in the digital cultural record. Thus, an important dimension of postcolonial digital humanities focuses on uncovering and remediating the ways that digital humanities has contributed to the epistemic violence of colonialism and is implicated in colonial forms of knowledge production.

### The Ethics of Building in Postcolonial Digital Humanities

While digital humanities projects can contribute to the violence of colonialism, the emphasis on building and making in digital humanities

encourages the creation of new digital projects and archives that challenge these narratives. Therefore, an integral part of postcolonial digital humanities scholarship is building projects that demonstrate how digital humanities might contribute to the historical and intellectual projects of decolonization in the digital cultural record while resisting colonialism in its practices. In spite of the politics that surround the role of building in digital humanities, the example of the Early Caribbean Digital Archive suggests why building is not a luxury but is, in fact, an essential affordance of postcolonial digital humanities.

Postcolonial humanities, therefore, relies on the ethos of building in digital humanities, despite debates that argue that the role of making in digital humanities contributes to inequalities and a lack of diversity in its scholarship. While uncovering the colonial biases that subtend knowledge production in digital humanities is important, using digital humanities methods to intervene in the gaps and absences of digital knowledge production is equally as important. As the cases of the Early Caribbean Digital Archive and the Bichitra Online Tagore Variorum suggest, this must be done both through contributions to gaps in representation and by developing practices to do so without centering the epistemologies of the Global North.

The role of building in digital humanities has been some matter of debate. At the 2011 Modern Language Association Convention, Stephen Ramsay gave a talk titled “Who’s In and Who’s Out,” setting off a furor over the question of who “counts” as a digital humanist. In a now-famous statement, Ramsay said: “I think Digital Humanities is about building things.”<sup>17</sup> He goes on to clarify that he interprets “building” broadly in a way that “includes and should include people who theorize about building, people who design so that others might build, and those who supervise building.”<sup>18</sup> Ramsay’s statements have become a watershed articulation of inclusion and exclusion, identifying a relationship between the act of making and offering a definition of digital humanities: one must build to be a digital humanist.

These remarks reflect anxieties over the definition of digital humanities as well as the relationship between theory and praxis in digital humanities. Emphasizing the significance of building to definitions of digital humanities, Anne Burdick, Johannah Drucker, Peter Lunenfeld, Todd Presner, and Jeffrey Schnapp argue that “the mere use of digital tools for the purpose of humanistic research and communication does not qualify as Digital Humanities.”<sup>19</sup> Such narrow definitions contribute to a false binary between “hack” (acts of coding, building, and doing) and “yack” (the work of talking, critiquing, and theorizing) as practices

that make up digital humanities.<sup>20</sup> A product of this binary is the charge that digital humanities is insufficiently theorized. In response, Geoffrey Rockwell has suggested, “[digital humanities] is under-theorized in the way any craft field that developed to share knowledge that can’t adequately be captured in discourse is.”<sup>21</sup> Put another way, digital humanities is an epistemology of building, where “yack” and “hack” are yoked together.<sup>22</sup>

Theories of digital humanities arise from praxis, while practices are informed by theory as well. Rockwell and others describe this as “craft knowledge,” comparing digital humanities to manual or trade labor, where building is done by hand.<sup>23</sup> Kathi Inman Berens identifies the process through which theory and practice meet, linking manual elements of building to ways of knowing: “There’s some kind of recursive loop between the fingers and the brain. . . . now my fingers know it to be true.”<sup>24</sup> Ryan Heuser echoes Berens’s invocation of a tactile experience in the production of digital knowledge in the humanities. He links an epistemology of building to Bourdieu’s work on the aesthetic disposition, a tendency towards detachment that he suggests is “arguably the form of knowing at the center of the ‘traditional’ Humanities.”<sup>25</sup> Building, he explains, “is the opposite of detachment. Building is a form of creation. Creation is the ultimate participation.”<sup>26</sup> Heuser provides a careful description of the knowledge-building intersections in digital humanities: “We in DH know we are building models. . . . And we love and learn from it. We seek to mold ourselves into the shape of our objects. . . . Knowledge for us is an active process. A relentless dialectic of self and other.”<sup>27</sup> Still others link the concept of building as a way of knowing to the history of science, in which knowledge is produced through engagement with tools. Sometimes tools are developed to answer questions, while at other times answers are a by-product of tool production.<sup>28</sup> Still another perspective is that theory, in digital humanities, exists in its practices and is inseparable from project development. As Jean Bauer notes:

Every digital humanities project I have ever worked on or heard about is steeped in theoretical implications AND THEIR CREATORS KNOW IT. And we know it whether we are classed as faculty or staff by our organizations. Libraries and other groups involved in digital humanities are full of people with advanced degrees in the humanities who aren’t faculty, as well as plenty of people without those advanced degrees who know the theory anyway. . . . When we create these systems we bring our theoretical understandings to bear on our digital projects, including (but not limited to) decisions about:



controlled vocabulary (or the lack thereof), search algorithms, interface design, color palettes, and data structure.<sup>29</sup>

These examples suggest that knowledge in digital humanities is not only discursive but emerges in relationships with praxis, as tacit knowledge uncovered in the building of databases, the act of coding, the creation of digital archives, and the practice of digital mapping.

For postcolonial digital humanities, building is integral to intervening in the digital cultural record and uncovering the practices necessary for intervening in the colonial violence of the digital cultural record. The Early Caribbean Digital Archive, a project housed at Northeastern University, is an example of a project that responds to the erasures of colonial violence perpetuated in digital humanities projects by embracing the affordances of building. The project collates and digitizes pre-twentieth-century Caribbean texts, which are distributed in archives and repositories around the world, making them available online. Bringing them together, the Early Caribbean Digital Archive facilitates the study of the Caribbean using innovative digital technologies. The archive is specifically engaged in making legible the untold stories and unheard voices of the Caribbean, particularly in the nineteenth century. As a result, it demonstrates how embracing building in digital humanities can write back to and remediate colonial violence perpetuated in digital humanities projects like NINES.

Moreover, the Early Caribbean Digital Archive intervenes in approaches to labor, which is a central issue in digital humanities. In debates over building in digital humanities, the issue of labor has been subject to critique because projects are collaborative and therefore require not only builders, but also a range of other workers who contribute to a project. Alan Liu cautions that the link between building and knowing only stands insofar as “we recognize the multiplicity of builder roles (including the importance of interpreters, critics, and theorists in the enterprise, many of them the same people as the coders, etc.).”<sup>30</sup> In doing so, he proffers a critique of implicit hierarchies of power in digital humanities that privilege particular forms of labor despite the range of roles needed to develop a project. Mark Marino further notes that the framing of “building” in the practices of digital humanities is disingenuous because of the practices of programming themselves:

The aspect of learning by copying and then modifying, which is true of so many literacies, has such a crucial role in programming culture—or even learning by finding some code and reverse engineering it in your head or with the documentation—that this notion of

“building” or (and this is getting close) “building something on your own”—reveals itself to be a notion whose time is finally up.<sup>31</sup>

Because cutting, pasting, and modifying code is so ingrained in the practice of building, the idea of building from scratch implied in definitions of digital humanities is an inaccurate one. As David Golumbia notes, “If you think back ten years, many applications that required real coding, and then later required knowledge of some building skills, can today be done by people who know nothing that could be called ‘coding.’”<sup>32</sup> This includes the role of graphical user interfaces in providing ease of access; content management systems like WordPress, which have eliminated the need for web pages to be hand-coded from scratch; and developments in computer science that emphasize efficient processes for development.

The changing role of digital humanities labor facilitated the development of the Early Caribbean Digital Archive. Because the learning curve for building has been lowered by emerging technologies, the archive’s developers were able to bring in humanities students to work on the project as collaborators. The project’s directors envision it as a “Co+Lab”—a digital knowledge commons and laboratory for scholarly textual analysis that brings the user in as a collaborator as well. Essential to the development of the Co+Lab was the creation of a digital space for a user community to envision new ways of engaging with digital archives that physical archives foreclose.<sup>33</sup> Among the tools currently available for the community are annotations, notebooks, bookmarks, personal folders, and the possibility for creating individual collections with the archive’s materials. Powered by the semantic layer plug-in Hypothesis, Co+Lab Annotation encourages users to add marginalia, comments, and questions to archival records. The Co+Lab Notebook offers space for users to keep notes on their research questions and discoveries. Meanwhile, additional elements allow users to organize materials and arrange collections.

By creating features that facilitate engagement and participation in the commons for users, the Early Caribbean Digital Archive diffuses some of the challenges that have led to concerns about inclusion along lines of race and gender in digital humanities. Coding is a highly skilled form of labor, knowledge of which is more accessible to particular demographics than others. As Miriam Posner has noted, coding is a practice that is not neutral; men—white, middle-class men in particular—are more likely to have been encouraged to code at an early age.<sup>34</sup> As a result, barriers exist along lines of class, race, and gender. In light of this emphasis on coding, Natalia Cecire argues that ways of doing prescribed by the digital humanities are articulated with masculinist rhetoric: manual labor of the “white,

male, blue-collar variety. . . . ‘hands-on,’ ‘getting your hands dirty,’ ‘dirt’ (as in the Digital Research Tools wiki), ‘digging’ (as in the Digging into Data Challenge), ‘mining,’ and of course ‘building.’”<sup>35</sup> However, projects like the Early Caribbean Digital Archive that create avenues of engagement designed from the perspective of a user-community take advantage of technologies with manageable learning curves to provide access for a broad constituency.

The Early Caribbean Digital Archive demonstrates that building in digital humanities is not a luxury for a privileged few but an ethical imperative for postcolonial studies. By contributing to the proliferation of knowledge in the digital cultural record, digital humanities risks conjuring the world making of the colonial project in digital form, as NINES shows. The opportunity to build and to share enables participation in remediating the digital cultural record and writing back to the role that colonialism continues to play through it.

Such moves are evident in the work of the Early Caribbean Digital Archive. Rather than simply stating a critique, the project surveys the global landscape of digital humanities and carefully builds a model to generate new forms of knowledge from which theories of digital humanities and of Caribbean literature may emerge. Projects that undertake this work participate in the work of sharing that is essential to digital humanities. Mark Sample notes:

We are no longer bound by the physical demands of printed books and paper journals, no longer constrained by production costs and distribution friction, no longer hampered by a top-down and unsustainable business model. And we should no longer be content to make our work public achingly slowly along ingrained routes, authors and readers alike delayed by innumerable gateways limiting knowledge production and sharing.<sup>36</sup>

Building archives and other digital projects offers the possibilities of challenging the erasures, gaps, and silences of print knowledge that are too easily replicated in and subsequently amplified by digital humanities scholarship. In digital humanities, there are ample opportunities to embrace the affordance of building in the service of creating new worlds in the digital cultural record. As Sample suggests:

We have the opportunity to distribute that future more evenly. We have the opportunity to distribute knowledge more fairly, and in greater forms. The “builders” will build and the “thinkers” will think,

but all of us, no matter where we fall on this false divide, we all need to share. Because we can.<sup>37</sup>

Positioning “sharing” over “building,” Sample articulates the possibilities of digital humanities: “the digital reshapes the representation, sharing, and discussion of knowledge.”<sup>38</sup> By doing so, as the Early Caribbean Digital Archive demonstrates, digital humanities can participate in the transferal of agency from project creator to participant, challenging traditional hierarchies that shape the production of print knowledge.

The paradigm of “breaking” that has gained currency in digital humanities is another way of understanding the work that postcolonial digital archives like the Early Caribbean Digital Archive can perform. The move towards breaking is loosely derived from Jerome McGann and Lisa Samuels’s work on “deformance,” which Mark Sample describes as “an interpretive concept premised upon deliberately misreading a text, for example, reading a poem backwards line-by-line.”<sup>39</sup> We might conceptualize hacking, one of the vaunted forms of building in digital humanities, as a form of breaking. Paul Fyfe has argued that digital humanities has “made hacking a discipline,” defining “hacking” as to “adapt, manipulate, and make productive use out of a given technology or technological context or platform.”<sup>40</sup> Cecire proposes that we might understand hacking as “an embodied, experiential, extra discursive epistemology,” or what the history of science dubs “tacit knowledge.”<sup>41</sup> Through hacking, tacit knowledge emerges as an element of breaking—of code, of firewalls, of passwords, of existing structures. As Tad Suiter suggests, “[a] hacker is a person who looks at systemic knowledge structures and learns about them from making or doing.”<sup>42</sup> To build is to hack, to hack is to break, to break is to build.

In the context of postcolonial studies, breaking has analogues to the practice of reading the colonial archive against the grain of colonialism and empire. For postcolonial digital humanities, the move against the grain can be performed in the building of new digital archives and is essential to the task of decolonizing colonial archives. Such acts of dismantling the colonial dynamics of the digital cultural record produce new ways of knowing and new theories that emerge from undoing. Such figurations of breaking as a form of unmaking to make anew echo processes of decolonization—not simply the collapse of empire and decolonization of the nation-state, but also the decolonizing of the mind that so often remains incomplete and remains an ongoing process long after political independence.<sup>43</sup>

The intellectual insights that the Early Caribbean Digital Archive has yielded attest to the value of this kind of work. The project can be understood as a form of digital humanities against the grain that puts pressure on existing archives and their omissions through its creation. Through its intervention in the digital cultural record, the project has also uncovered challenges to how the cultural record is interpreted. One of the commonly understood limits of Caribbean studies is a lack of Caribbean slave narratives. This stands in stark contrast to the primacy of the slave narrative in nineteenth-century African American literature, despite the fraught nature of this highly mediated genre of writing and the role of white abolitionists in its production and dissemination. Through the work of digitizing nineteenth-century Caribbean texts, the Early Caribbean Digital Archive uncovered extant slave narratives that were embedded within colonial-era documents.<sup>44</sup> This discovery is a direct result of the work undertaken to create the Early Caribbean Digital Archive and to write back to existing archives. It attests to the fact that the creation of digital archives is not simply a matter of transcribing and digitizing texts, but of producing new knowledge as well. We might view the results as radical, emancipatory acts that break new forms of knowledge free from the persistent forms in which they are trapped, just as the ideal of decolonization offers hope that a change in episteme may be possible. Thus, it is through the intimate link between breaking and building that colonial disruptions in the digital cultural record may be addressed.

Another important intervention for postcolonial digital archives is challenging the centrality of tools and methods that were created and refined in cultural contexts of the Global North. Doing so requires developing new tools, archives, and practices that emerge from local contexts and challenge colonial violence through their design and content. Such an approach mediates between the hack/yack binary and exemplifies Bruno Latour's identification of a discursive shift from critiquing to composing, which he describes as using a hammer to "repair, take care, assemble, reassemble, stitch together" rather than "break down walls, destroy idols, ridicule prejudices."<sup>45</sup> The Bichitra Online Tagore Variorum exemplifies how a project can make these dimensions legible.

The project, housed at Jadavpur University in Calcutta, archives the writing of Rabindranath Tagore, India's first Nobel laureate in literature. Tagore was a prolific writer in Bengali and English, and the Bichitra Online Tagore Variorum is the most substantial digital archive of any writer in existence. The online archive contains digital images of Tagore's manuscripts and print texts, comprising 47,520 manuscript pages and 91,637 pages from books and journals that appeared in print. The

collection includes plain-text transcriptions of these texts, a multilingual search engine, a collation engine that accounts for multiple genres, and a detailed bibliography.

The Bichitra Online Tagore Variorum is significant in its recognition that projects and digital tools are inseparable from the cultural contexts in which they were developed. Attending to these issues in the creation of postcolonial digital archives, Martha Nell Smith suggests we recall the ways that social relations can be frozen in the production of digital archives. She writes:

Makers and users of postcolonial digital archives should take care to recognize that there tends to be an amnesia or blindness to the fact . . . that “Systems of classifications (and of standardization) form a juncture of social organization, moral order, and layers of technical integration. Each subsystem inherits, increasingly as it scales up, the inertia of the installed base systems that have come before.” Tools cannot be separated from the knowledge systems in which they have been imagined and made.<sup>46</sup>

Smith goes on to argue that postcolonial digital archives should “be explicit about who is producing the resource and for what purposes.”<sup>47</sup> She proposes that this take place through the questions that have been central to postcolonial analysis: “How have these items of knowledge and the organizations and working groups who made them come into being? Who has stakes in their presentation? What is visible in these new media archives and what might not be?”<sup>48</sup> The Bichitra Online Tagore Variorum negotiates these politics through its clear recognition of its sources of funding, which came from the Ministry of Culture of the Indian government, and the fact that it was created as part of the government’s celebration of the 150th anniversary of Rabindranath Tagore’s birth. Moreover, the project’s creators recognized that existing tools were insufficient for engaging with the collected materials. Thus, they built the collation tool Prabhed, which allows users to compare different versions of a work at three levels: section, segment, and word.<sup>49</sup> This facilitated user experience with the digitized materials, which include prose, verse, and plays.

Another important dimension of the postcolonial digital archive rendered legible through the Bichitra Online Tagore Variorum is the possibility for recovery and repatriation through digitization. Elizabeth Povinelli, who has worked with Indigenous and non-Indigenous Australians to create a postcolonial digital archive for rural Australia, suggests, “The postcolonial archivist is charged with finding lost objects,

subjugated knowledges, and excluded socialities within existing archives or to repatriate exiled objects, knowledges, and socialities.”<sup>50</sup> Digitizing may be viewed as an act of retrieval and representation, restoring agency that colonial archives deny. By creating a free and open-access archive, the Bichitra Online Tagore Variorum makes this cultural heritage available to all who can access it.

However, the sources used to create the archive speak to the thorny question of ownership over cultural heritage. Most of the material in the archive was drawn from the Rabindra-Bhavana archive at the Santiniketan school founded by Tagore, and a number of other Indian institutions contributed their collections as well: the Bangiya Sahitya Parishat, a Bengali literary society; the Central Library at Calcutta University; the Center for Studies in Social Sciences in Calcutta; the Indian National Library; and the Central Library at Jadavpur University. Yet the project draws on other sources as well, including the Houghton Library at Harvard University and private collectors of Tagore material. By bringing together this material on Tagore—particularly from outside of India—the Bichitra Online Tagore Variorum demonstrates the possibility of the repatriation of cultural heritage online. The material at Harvard University and in the hands of private collectors does not remain out of sight, but instead is available to all through the online archive.

As the Bichitra Online Tagore Variorum demonstrates, postcolonial digital archives do not simply collect artifacts that provide a retelling of history but, in fact, transform culture. Because the archive is imbricated in colonial power dynamics, Povinelli argues, “the *postcolonial archive* cannot be merely a collection of new artifacts reflecting a different, subjugated history.”<sup>51</sup> As such, the work of the postcolonial digital archive is not simply about additive logic; rather, it must interrogate the structure of archives proper. According to Povinelli, this could range from “the material conditions that allow something to be archived and archivable” to “compulsions and desires that conjure the appearance and disappearance of objects, knowledges, and socialities within an archive,” and to “cultures of circulation, manipulation, and management that allow an object to enter the archive and thus contribute to the endurance of specific social formations.”<sup>52</sup>

In this vein, the Bichitra Tagore Online Variorum plays an important role in transforming how Tagore’s work is understood through its design. Often, Tagore’s writing is treated separately by language—his Bengali and English writing are rarely viewed by scholars as connected to the broader context of colonial Indian history, which is an important framework for that writing. Through its careful navigation of multiple languages in the



platform itself and the tools developed for searching and collation, the Bichitra project enables users to research and interpret Tagore's writing at the intersections of languages. As an intervention in postcolonial digital humanities, the Bichitra Tagore Online Variorum does not shy away from exploring how colonial history influenced the development of both Bengali and English-language writing in India. Rather, it makes that history navigable in the archive itself. Therefore, it represents and makes legible the complications of digital cultural heritage that are themselves legacies of colonialism.

### Born-Digital Postcolonial Archives

While the Early Caribbean Digital Archive and the Bichitra Online Tagore Variorum are important examples of postcolonial digital archives that draw on historical materials, what of born-digital texts, particularly those being generated by participants in social movements that are engaged in questions of imperialism and decolonization? These born-digital texts have become increasingly important as activists have turned to Twitter and other social media sites for organizing and action. The social web has muddled the boundaries between producers and consumers of content and knowledge. The advent of ready public access to the internet around the world has granted consumers access to the means of digital knowledge production, giving rise to digital "archives"—collections of material online that exist beyond libraries and institutional repositories and exemplify Jacques Derrida's observation that "nothing is less clear today than the word 'archive.'"<sup>53</sup> The creators of the R-Shief archival and visualizing media system, however, provide an important model for collecting and making meaning of born-digital material.

Over the past few years, Twitter has caught the attention of the public as a locus for activism. The first large-scale social movements to play out in the public space of Twitter emerged from the Arab Spring, the waves of demonstrations that spread throughout the Arab world between late 2010 and mid-2012. Around the same time, activists within the Occupy movement took advantage of the Twitter platform to facilitate a decentralized movement of activists. Still other Twitter-based activism includes the Idle No More movement, which coordinates political actions for First Nations rights in Canada, and MMIW, which calls attention to the epidemic of missing and murdered indigenous women in Canada.

Not everyone recognizes the role of Twitter in activism. Its use by the Occupy movement gave rise to the notion of "hashtag activism," a



pejorative term used to describe activism that is carried out and spread via social media. Eric Augenbraun, a political journalist, coined the term to describe the Occupy movement, questioning whether hashtag activism should be called “activism” at all.<sup>54</sup> The term “hashtag activism” is often used to suggest that those engaging social media for political ends are not activists but “slacktivists.”<sup>55</sup> The portmanteau of “slacker” and “activism” presupposes that a social media user is doing little more than signing a petition or retweeting a tweet; while doing little, the “slacktivist” is rewarded with gratifying feelings of self-satisfaction. In spite of these criticisms, hashtag activism has produced important born-digital texts from contemporary social movements.

On Twitter, the hashtag (a # and a key term) functions as an archiving tool, in the broadest sense of collection. Clicking on a hashtag on Twitter returns recent tweets that have used the same hashtag. The concept has gained so much currency as a method of connecting social media content that Facebook, Instagram, and other social media platforms have implemented hashtag functionality to enact the same connective function across user posts. As tweets and other social media posts flow across feeds and timelines, they appear one after another in a single column with apparently identical valences. Savvy users understand the complications and intricacies of this apparent flatness. On Facebook, algorithms produce the visual display of what a given user sees, based on calculations and automated reasoning that account for usage, likes, and user interaction. Twitter introduced optional algorithms in 2015, coupling the flat timeline with tweets that may be of interest to users based on their previous interactions. Contrary to the apparently flat timelines that users see, hashtags provide vertical engagement, an opportunity to plumb the depths of the putative archive constituted by the hashtag. While the hashtag appears to offer access to all tweets that use it, the Twitter website interface is not guaranteed to accurately retrieve all the posts in a hashtag.

As activists continue to embrace social media for organizing, the very possibilities of the postcolonial digital archive are reshaped by the hashtags that gain prominence. The Occupy movement, for example, became one of the most visible manifestations of global, anticapitalist activism by virtue of its social media presence. The movement built around the hashtag #MMIW has led not only to greater attention to missing and murdered indigenous women in Canada but also to the creation of a community-led database to support affected families and communities.<sup>56</sup> These hashtags offer possibilities for challenging the limitations of geography and for public organizing and action. As these affinities take on global dimensions, we can look to these hashtags as another component of postcolonial digital

archival practice. Yet, we also must remain conscious of the unarchivable: the voices of those without access to platforms; those whose immigration status or statelessness foreclose the possibility of a digital presence; and those who resist digital engagement because of their politics, ethics, or need for self-protection. Moreover, hashtags are not without their ethical complications, namely the commercial nature of social media platforms like Twitter. In light of these challenges, how can these born-digital texts be collected and made usable outside of the commercial platforms on which they emerge?

The case of R-Shief points to the importance of developing postcolonial digital archives that capture born-digital texts and make them available and sustainable beyond the platforms on which they were created. According to one of its creators, Laila Shereen Sakr (who also goes by the name VJ Um Amel), R-Shief is a digital archive of born-digital materials—media, websites, journalism, and social media posts—that were originally designed to focus on Gaza and Palestine.<sup>57</sup> Starting in 2010, however, R-Shief began mining Twitter hashtags, designing a system to scrape and analyze tweets. In 2011 its designers began collecting tweets related to Arab Spring activism, including #Jan25 (Egypt) and #Tunisia. Through its platform, R-Shief offers “real-time analyses of opinion in the Arab world about late-breaking issues.”<sup>58</sup> Specifically, “R-Shief uses an interactive map to allow users to slice through aggregate web, Facebook, Twitter and other data in order to analyse what Arabs are saying about issues that impact them.”<sup>59</sup>

The outcomes of R-Shief have had significant ramifications for geopolitics and the interpretive possibilities of postcolonial digital archives comprised of born-digital materials. Rose Gottemoeller, United States assistant secretary of state, credited R-Shief’s predictive analysis of Arabic-language tweets using machine-learning with identifying the impending overthrow of the Libyan president Muammar Gaddafi.<sup>60</sup> R-Shief is also noted for its media analysis of tweets leading up to the resignation of Hosni Mubarak in Egypt and its open data #OccupyData Hackathons, which encouraged teams of researchers to engage with the #Occupy movement data using the R-Shief archives and analytics.<sup>61</sup> Its creators have also developed tools for data analytics using sources in Arabic.<sup>62</sup> These interventions are facilitating new approaches to analyzing postcolonial born-digital materials across linguistic and geographical barriers. Thus, R-Shief, like the Early Caribbean Digital Archive and the Bichitra Online Tagore Variorum, exemplifies the need to design new archives, projects, and tools to facilitate the creation of postcolonial digital archives. Yet it does so in response to the proliferating born-digital materials emerging

from social media. This is an integral dimension of the digital cultural record, which must include users around the world who are using these technologies in the context of global social movements.

The bits and bytes that constitute the fragments of postcolonial digital archives are vast indeed. Like imperial archives, they contain a multitude of objects and practices that are shaped by complex politics and power relations. But in contrast, they contain multitudes of voices that converge in fluid and flexible ways, offering the possibility of writing back to dominant narratives. The archive is necessarily incomplete, its fragments resisting wholeness or truth. Within the postcolonial digital archive—whether digital cultural heritage, a meta-archive, or an indigenous activist hashtag—we are offered the opportunity to embrace the affordances of digital media and learn from the limitations of the colonial archive.

Postcolonial digital archives, then, hold possibilities for giving voice to new stories that reshape the dynamics of power within the digital cultural record. Given the availability of these technologies, it is easy to succumb to the lure of techno-utopianism and to see technology as the answer to the problems of the digital cultural record. If that were the case, however, we would not see absences in digital archives that are reminiscent of those that exist in print forms of knowledge. Therefore, the postcolonial digital archive is more than mere addition, and requires interrogation of the structure of archives themselves.

Like all digital archives, postcolonial digital archives offer ways of preserving and disseminating knowledge, but they are also implicated in creating and structuring that knowledge. Avoiding reproducing existing inequalities in regimes of knowledge requires attending to postcolonial critiques of the archive. Through the convergence of postcolonial digital archiving practice and the role of social media activism in the public sphere, the emancipatory and expansive possibilities for resisting colonial world making in digital worlds are visible. Such an approach reshapes the hierarchies that determine what is knowledge and who can produce it, bringing public communities of the Global South into view as contributors to knowledge production.