From *Datum* to Databases: Digital Humanities, Slavery, and Archival Reparations

Robert Nowatzki

ABSTRACT

This article examines several projects that apply digital technologies to the study of transatlantic slavery and assesses the potential benefits of these projects while also noting their limitations. It argues that despite the absence of race, and specifically African American history and culture, in much digital humanities scholarship, the study of slavery has been considerably enhanced and transformed by the work of archivists and digital humanities scholars who apply digital technologies to the study and representation of slavery and enslaved people. This subject must continue to be studied so that we understand not only the past but also slavery's impact on the present. Digital technologies such as databases and geographic information system mapping have been useful in helping us understand this chapter of human history more fully and in new ways. Digital applications to archival materials relating to transatlantic slavery not only increase access to these materials for students and researchers, but also offer ways of obtaining new insights into this topic. However, to enhance our understanding of the history of slavery and to be effective agents of progressive social change, such initiatives should be cognizant of how data analysis can be driven by false assumptions of neutrality and can unwittingly contribute to the reification and dehumanization of people of African descent that was characteristic of transatlantic slavery. Digital humanities as a field should both continue such digitizing initiatives and also use digital tools to create critical analyses of oppressive hierarchies to weaken or destroy them.

KEY WORDS
African Americans, Archival theory, Black digital humanities,
Digital humanities, Digitization, Slavery

In her essay "Why Are the Digital Humanities So White?," Tara McPherson examines the reasons for the gulf separating the digital humanities (DH) and the progressive impulses of humanities scholarship that do not engage extensively with digital media. Regarding the former, McPherson laments "the ease with which we partition off considerations of race in our work in the digital humanities and digital media studies."[1] Kim Gallon concurs with McPherson by stating, "discussions about the lineage of Black studies within the digital humanities are almost nonexistent."[2] In looking over some of the journals devoted to the digital humanities, one might share McPherson's and Gallon's concern about the erasure of race, and specifically African American history and culture, in the digital humanities. For example, when skimming the titles of all 1,256 articles published in 144 issues of the journal *Literary and Linguistic Computing* (which was renamed *Digital Scholarship in the Humanities* in 2015) since it was launched in 1986, as of July 2020, only three titles (less than one quarter of 1 percent of the total) mention African American people, culture, history, or literature (see Table 1). In 367 articles published in forty-three issues of *Digital Humanities Quarterly* since it was launched in 2007, only five titles (less than 2 percent of the total) mention people of African descent, race, racism, slavery, diaspora, or colonialism (see Table 2).[3] The division that McPherson traces between digital humanities and the humanities scholarship that interrogates oppressive and liberating constructions of race and other identity categories could be seen as an academic equivalent of the "digital divide" in many Western societies more generally. Current dialogues about the relationship between DH scholarship and antiracist humanities scholarship are relevant to the archival profession as well, given that false notions of neutrality in DH scholarship and archival scholarship can erase systems of oppression and silence the voices of disfranchised people.

However, despite the absence of discussions of transatlantic slavery in much DH scholarship, the study of slavery has been considerably enhanced and transformed by the work of archivists and DH scholars who apply digital

Table 1. Articles Published in *Literary and Linguistic Computing/Digital Scholarship in the Humanities*

Total Articles	Articles Mentioning African American History/Culture	Percentage
1,256	3	0.23

Table 2. Articles Published in *Digital Humanities Quarterly*

Total Articles	Articles Mentioning African American History/Culture	Percentage
367	5	1.36

technologies to the study and representation of slavery and enslaved people. The African American Digital Humanities (AADHum) initiative at the University of Maryland is a major hub of such scholarship (including a conference in 2018), and, in 2015, *Fire!!! The Multimedia Journal of Black Studies* published a list containing scores of Black DH projects, many of which focus on or include the topic of slavery.[4] As someone who has spent years studying slavery and teaching literature relating to this topic, I find these projects to be valuable ways of retrieving, storing, and visualizing a shameful yet foundational chapter in the history of the United States, the United Kingdom, and other nations that enslaved African people, as well as in African history as a whole. Many such projects can be found on the British Slave Trade Legacies: Technology Intersecting Culture project, which collects websites pertaining to the 2007 bicentennial of the abolition of the transatlantic trade in enslaved people in the United Kingdom, and the H-Slavery online academic forum.[5] Rose Roberto, the creator of the former project, explains the project's subtitle: "it records use of internet technology as the communication medium to examine slavery's global impact, as well as how participation in the trade affected local communities past and present."[6] Digital applications to slavery-related archives can enhance access to these archives and also re-present them in ways that overcome the archival silencing of Black voices that are built into the creation of these records and into traditional archival practices. At the same time, we should be careful to avoid replicating the dehumanization of Black enslaved persons inherent in these archives by representing them as mere data. This article examines several projects that apply digital technologies to the study of transatlantic slavery and assesses the potential benefits of these projects while also noting their limitations. I have included an eclectic range of projects using a variety of digital techniques and different levels of technological sophistication to provide a somewhat representative sampling of digital applications to and representations of slavery-related archives in the United States. These projects demonstrate the potential for the "increased collaboration between archivists and digital humanists" that Anne J. Gilliland believes could enhance access to archives,[7] particularly the archives of slavery.

Obviously, slavery is a painful issue for many people to ponder, especially for those whose ancestors were enslaved. Nevertheless, we must continue to study this subject to understand not only the past but also slavery's impact on the present. Too often, histories of slavery downplay its brutality to assuage white guilt regarding past injustices or erase the agency and humanity of enslaved people. Archives of slavery must be represented in ways that recognize the humanity of enslaved persons and emphasize the inhumanity of the institution itself. Such archival representations are needed both in archival practices as well as in DH scholarship because, in both contexts, awareness of patterns and histories of oppression are necessary starting points (though they are not in

themselves sufficient) for bringing about social justice, avoiding the repetition of past oppressions, and understanding current patterns of injustice. Because digital representations of slavery and other forms of oppression may cause trauma if they are not presented properly, it is crucial to contextualize these representations with condemnations of slavery, colonialism, and white supremacy while also emphasizing the humanity of enslaved people. For example, Kate Holterhoff notes the importance of curation and contextualization in the presentation of racist images in Ferris State University's digital Jim Crow Museum of Racist Memorabilia.[8] Many users interested in this topic welcome the digitization and curation of archival representations of slavery, despite their potential for triggering trauma when presented without context. Digital technologies such as databases and geographic information system (GIS) mapping have been useful in helping us understand this dark chapter of human history more fully and in new ways. As Anna Robinson-Sweet observes, "[d]igitization makes it possible to disseminate the documentation of white supremacist violence and to connect the dots between state actors, corporations, and individuals implicated in these injustices."[9] Archival representations of transatlantic slavery, as well as the digital applications to such representations, not only increase access to these materials for students and researchers, but also offer ways of obtaining new insights into this topic.

However, to be effective agents of progressive social change, archivists must recognize how archives of slavery, in their reduction of humans into data, are rooted in the patterns of oppression that they document.[10] Therefore, archivists should reconsider the primacy of records creators that has traditionally informed archival practices. Randall C. Jimerson's observation that "archivists' practice of identifying, selecting, and managing records according to the provenance of their creation automatically privileges the colonial rulers and their bureaucracy over the perspectives of native people"[11] is applicable to the privileging of enslavers over enslaved persons in archives of slavery. Jeannette Allis Bastian concurs with Jimerson when she points out that in colonial records, the traditional emphasis on provenance in the archival profession tends to replicate the power imbalance between colonial records creators and colonized persons described in the records.[12] On the other hand, Bastian argues regarding the archives of the Danish Virgin Islands that it is possible for the descendants of enslaved persons to hear the "whispers" of their ancestors in the records created by their enslavers.[13] Creative digital applications may offer archivists and researchers methods to read such archives against the grain so that the experiences, perspectives, and humanity of enslaved persons are represented adequately. In addition, archivists and DH scholars who apply digital technologies to the archives of slavery should be cognizant of how data analysis can be driven by false assumptions of neutrality and can unwittingly contribute to the

reification and dehumanization of people of African descent that was characteristic of transatlantic slavery. Because they have the potential to enhance our access to the archives of slavery, digital applications amplify such potential for positive social change.

Digitizing Slavery Archives

The first digitization projects focusing on slavery archives emerged during the first decade of the World Wide Web. One of these early projects is the North American Slave Narratives digital library, part of the Documenting the American South project that was launched in 1994.[14] This resource contains hundreds of narratives written by African Americans who endured enslavement. These narratives were digitized and marked up in hypertext markup language (HTML) and can be browsed by author or subject. While this resource includes the most well-known narratives by Frederick Douglass, Harriet Jacobs, and Olaudah Equiano, which are available in many libraries, bookstores, and the Project Gutenberg digital library, most of the other narratives in the North American Slave Narratives library would be difficult to find elsewhere. According to the "About This Collection" page of this site, "[t]his project makes these texts widely available by digitizing them, encoding them, and publishing them on the Internet, where they are available world-wide at no charge to anyone with Internet access."[15] These texts in North American Slave Narratives are valuable not only to scholars focusing on slavery or African American literature, but also to amateur genealogists whose ancestors were enslaved and who may wish to learn about these ancestors. Patricia Buck Dominguez and Joe A. Hewitt state that this library was visited 58,794,745 times in 2006, and while it received many positive comments from K–12 teachers and college/university faculty users, most of the positive feedback came from the general public.[16] Although textual representations of slavery are difficult for many readers to encounter, North American Slave Narratives breaks the textual chains of silence that have bound enslaved people in the archives of slavery and makes this literary genre more accessible than if these works were available only in brick-and-mortar libraries and bookstores.

In contrast to North American Slave Narratives, many of the more recent digital projects dealing with slavery archives are more visual and dynamic. One example is "The Atlantic Slave Trade in Two Minutes," an interactive cartographic video created by Andrew Kahn that was accompanied by a brief article by Jamelle Bouie published in the online magazine *Slate* in June 2015. It shows moving black dots representing the traffic of enslavers' ships traveling from Africa to the New World from 1545 to 1860. The article accompanying this video explains that the data regarding the enslavers' ship voyages were derived from

the Trans-Atlantic Slave Trade database, which can be accessed through the Slave Voyages website created by David Eltis and Martin Halbert.[17] According to Bouie, this video represents only about half of the actual enslavers' ship voyages, because so many went unrecorded.[18] Henry Lovejoy, who has studied slavery through digital applications, notes that the video is somewhat inaccurate because it uses a modern-day map of Africa, though the data visualized in this video was based on earlier, less accurate maps. Viewers should realize that it does not give accurate information about which areas in Africa enslaved people were from and from where they embarked.[19] The video also includes a line graph showing the New World destinations of these ships. Another feature is enabled by pausing the video and clicking on any of the black dots; this action presents viewers with information about the ship, its human cargo, and the dates and locations of various points in its voyage. The visual dimension and its short temporal length are powerful tools in helping us understand the extent of the transatlantic trade in enslaved people over the course of three centuries. However, the video's representation of the trade in enslaved people echoes the reification of enslaved Africans, the erasure of the injustice and trauma caused by this trade, and the lack of culpability of those who bought, sold, and transported these people. Regarding this project, Britt Rusert observes, "[t]he ghostly, agent-less launching of slave ships from Africa to the Americas nicely captures how discourses of trade routinely obscured the brutalities of the slave trade: the commodification of people hidden under mercantilist discourses of profit, calculation, and markets, as well as the processes of mystification involved with the creation of commodities themselves."[20] Rusert adds, "the representation of slave ships—as black dots—moving across the map without the colonial actors, sailors, buyers, traders, and other agents that made the trade happen on a day-to-day basis, presents an image of Africa that gives itself and its people freely to the world: an odd image of self-sacrifice that obscures the extraction of people and resources, as well as its attendant violence on the people stolen and the people and communities left behind."[21] Rusert's critique of Kahn's animation reveals that careful thinking about the ethical considerations of digital visualizations of slavery must accompany the skills used in creating geographic information system maps and querying application programming interfaces (APIs).

Vincent Brown undertook a more ambitious application of GIS mapping technology to the history of transatlantic slavery in his project Slave Revolt in Jamaica, 1760–1761. On the project's homepage, Brown explains that his thematic map "suggests an argument about the strategies of the rebels and the tactics of counterinsurgency, about the importance of the landscape to the course of the uprising, and about the difficulty of representing such events cartographically with available sources."[22] In contrast to "The Atlantic Slave Trade in Two Minutes," Slave Revolt provides more than mere quantitative data that reaffirms

the status of enslaved people as dehumanized commodities. This project features a map of Jamaica with major events of the revolt described in a sidebar and a pointer indicating the location of each event. Thick moving colored lines trace the movements of freedom fighters, maroons, militia, and other groups. In his article about the project, Brown concedes that the data regarding this revolt are not only incomplete but also biased, because they were created by enslavers, militia, and colonial government officials who did not recognize the humanity of enslaved people or value the anger and desire for freedom that motivated them to participate in the revolt.[23] In addition, Brown notes that the colonial maps of Jamaica "tend to reify colonial geography" and do not represent how the rebels or maroons viewed the land.[24] Brown argues that "cartography presumes the natural existence of points on a grid much as history naturalizes the timeline, though these are ultimately folkways for representing space and time that have more in common with slaveholders' epistemes than with those of their slaves."[25] He decided to complement this problematic quantitative data by using the qualitative methods of design.[26] Brown explains, "[r]ather than representing reified artifacts, historical visualizations can narrate a humanistic interpretation" of events like this.[27] His use of the maps in conjunction with the colonialist archival data, the color coding, and the line movements reflect the uncertainty of the events depicted. In dealing with the challenge of representing the unpredictability of guerilla warfare while also showing a sense of direction by the insurgents, Brown designed the moving colored lines in an attempt "to balance intelligibility with uncertainty" (see Figure 1).[28] In discussing this project, Elizabeth Maddock Dillon asserts, "Brown makes a powerful argument for the value of digital humanities approaches to the silences of history and the coloniality of the archive."[29] In particular, Dillon observes that by representing
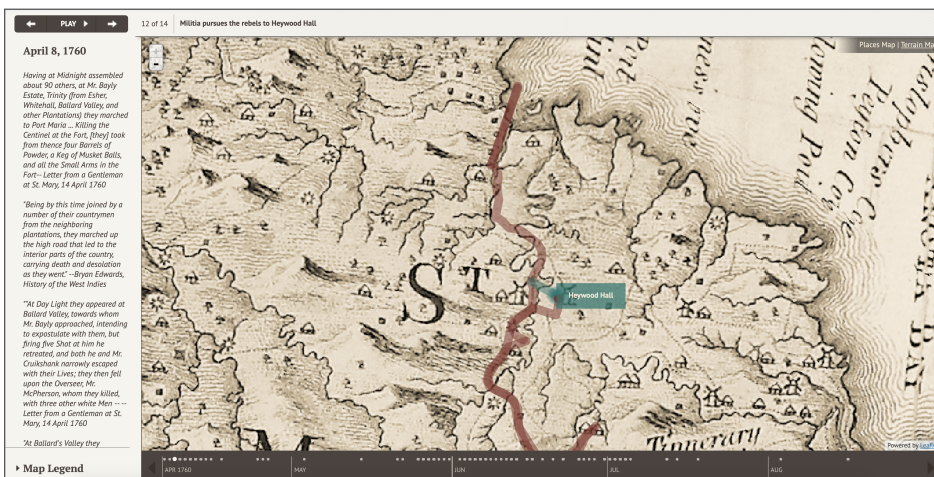

FIGURE 1. Screenshot of an interactive map from Slave Revolt in Jamaica, 1760–1761

the movements of enslaved persons and maroons as well as counterinsurgent groups with color-coded lines, "Brown generates an interesting equation between the forces of insurgency and counterinsurgency that is nowhere enunciated in the colonial archive."[30] In this respect, Brown's project, like the other projects discussed here, is an example of what Robinson-Sweet terms "archival reparation."[31] According to Robinson-Sweet, "the archivist can not only assist in reparations claims, but also offer reparative justice from within the archives."[32] In cases like the 1760–1761 insurrection of enslaved Jamaicans, about which the records creators do not fully represent the truth, data visualization tools like those used by Brown give an alternative, more complete, and unjustly neglected account of slavery.

Such archival reparations through digital projects focusing on slavery can also be excellent teaching tools. One such project is the Early Caribbean Digital Archive (ECDA), sponsored by Northeastern University and codirected by Nicole Aljoe and Elizabeth Maddock Dillon. The website describes the ECDA as "an experiment in decolonizing the archive using digital means."[33] In addition, the ECDA has more of a pedagogical component than many other digital projects focusing on slavery or colonialism, in that it is designed not only for scholars of pre-1900 Caribbean history but also for students and educators. By clicking on "Classroom" from the homepage menu, users can find resources for teachers, resources for students and researchers (including bibliographies), and featured student projects, some of which include cartographic visualizations with annotated pins. The website also allows users to search its database and includes exhibits focusing on the narratives of enslaved people in the Caribbean, obeah, and Caribbean natural history. Adaptable to the classroom, this project emphasizes the connections between slavery and colonialism more than some other such digital projects do.

Archival Reparations in US Universities

Several US universities have also created useful digital tools to reveal new insights about slavery, enslaved persons, and abolitionism. Some of these universities were guilty of participating in this nefarious institution, and some have acknowledged this complicity through digital projects in recent decades. An early example of such archival reparation by a US university is the website Yale, Slavery & Abolition, which links to a 2001 report of the same title that three Yale graduate students wrote during the year of Yale's tricentennial celebration. Compared to later digital projects dealing with transatlantic slavery, Yale, Slavery & Abolition is rather basic; it mostly consists of text connected by hyperlinks and does not use more sophisticated tools like interactive GIS mapping technology or data visualizations. However, as Marilyn H. Pettit points out,

"[t]he site and its publicity nevertheless engendered self-examination within other institutions of higher education."[34]

More recently, the Georgetown Slavery Archive, launched in 2016, was developed to acknowledge and provide information about Georgetown University's complicity in slavery from its founding in the late eighteenth century to the mid-nineteenth century. The project's website explains that it is part of the university's Working Group on Slavery, Memory, and Reconciliation, which was launched in 2015.[35] The Georgetown Slavery Archive includes six collections of materials relating to slavery in Maryland and the involvement of Jesuits in that economy. It also includes a gallery of digitized maps, documents, and portraits as well as a multimedia section that includes podcasts and videos. Other features include a section providing information links about the descendants of persons enslaved by Maryland Jesuits as well as an interactive pin map (most of the pins are located in Maryland, Virginia, and Louisiana) that links to various documents and information about incidents involving Jesuit enslavers and the people they enslaved. More features on this subject, including an interactive timeline, are available on the Slavery, Memory, and Reconciliation page linked to the Georgetown Slavery Archive website. Georgetown University's complicity in slavery is perhaps even more reprehensible than that of other academic institutions such as Brown University and William and Mary College because slavery is anathema to the core ethical and intellectual values of the Jesuits. The Georgetown Slavery Archive addresses this hypocrisy directly and provides useful digital tools for understanding slavery in general and Georgetown University's participation in slavery specifically.

Legacy of Slavery in Maryland

Other sources for digital projects focusing on transatlantic slavery in the United States are state archives, particularly where slavery played a significant role in a state's history. For example, the Maryland State Archives has built Legacy of Slavery in Maryland, a website and database whose purpose is "to preserve and promote the vast universe of experiences that have shaped the lives of Maryland's African American population."[36] This project allows users to search through a database of enslaved and freed persons as well as enslavers who lived in this state. For example, in searching for information about Edward Lloyd, a wealthy enslaver mentioned in Frederick Douglass's narratives of the enslaved, one discovers a record from the 1830 census showing that Lloyd enslaved 299 female persons and 263 male persons. Unfortunately (though as one might expect), many enslaved persons may not be findable in this database. In searching for Frederick Bailey (who later changed his name to Frederick Douglass), one finds no results. Absences like these reflect the erasure of many

enslaved persons whose names were not recorded in the documents included in this archive. Aside from census records, other documents that can be retrieved from this database include digital images of advertisements by enslavers regarding escape attempts that were published in newspapers. For example, among the search results for the enslaver Edward Lloyd are two such advertisements, one published in 1807 concerning the flight of George Grayson and another (undated) describing the escape of Henry Seeney. Other types of documents regarding enslaved persons and enslavers that can be retrieved from the database include freedom certificates, manumission documents, and assessments of enslaved persons. Unlike the advertisements, no digitized images are available for these other document types.

Aside from its searchable database, Legacy of Slavery in Maryland includes more narrative information in the website's Case Studies section. As of July 2020, this section features four case studies and links to three other digital projects published by the Maryland State Archives focusing on African American history. The case study "Stories of Flight" provides richer information about enslaved persons than can be retrieved from the database. It includes a brief introduction and a list of Maryland counties that users can choose from to find information about enslaved persons who escaped from a particular county. For each county, there are subsections for Fugitives, Accomplices, Slaveholders, Slave Crimes, and Other. For example, eight escape attempts (including one by Frederick Douglass) are listed in Talbot County, and for each person listed in the first three headings, one can select Biography, Sources, Images (unavailable for most persons aside from Douglass), and Related Collections.

Another feature of Legacy of Slavery in Maryland is the interactive map section. Organized by county, it includes a search box that allows users to search for place names and personal names, though unfortunately it does not allow users to specify which. So, for example, a search for the town of Easton yields nothing about this town, but instead results about any person bearing this name. Nevertheless, one can access a map for any county by selecting the "interactive maps index" link, which leads to a nineteenth-century map divided into counties. Users can select a county for an enlarged view, then select any district for a more enlarged view, and they can read the names of property owners and the land they owned. For example, when one selects Talbot County, then County District 1, several parcels of land are attributed to "Col. E. Lloyd," that is, the aforementioned Edward Lloyd (see Figure 2). The map is designed so that users can select any parcel to retrieve information about the owner, but in my attempts to do so, I received no results. According to Ryan Cox, formerly an archivist at the Maryland State Archives, inconsistencies and absences of data in the archives often lead to these kinds of disappointing search results.[37] By depicting land as parcels of property owned by enslavers, the maps tend to

FIGURE 2. Screenshot of an interactive map from Legacy of Slavery in Maryland website

perpetuate the alienation of enslaved persons from the land on which they lived and worked. Perhaps the maps could be redesigned in ways that would fore-ground the connections between enslaved persons and Maryland geography. Access to information about enslaved persons in this database is also limited by relying on the names of the enslavers rather than on those of the enslaved persons themselves. David E. Paterson has suggested the use of enslavers' names as primary reference points for enslaved persons in finding aids,[38] but as Archives for Black Lives in Philadelphia's Anti-Racist Description Working Group points out, such a practice tends to reinforce patterns of colonialist oppression by implicitly valuing enslavers over enslaved persons.[39]

James Hemings and the Thomas Jefferson Archives

In addition to applying digital technologies to the study of Atlantic slavery, enslaved and freed people of African descent, abolitionism, and resistance, DH scholars interested in these subjects have also examined other products of digital scholarship for their representations or erasures of these persons or subjects. One example is Lauren F. Klein, who analyzed the database the Papers of Thomas Jefferson Digital Edition and its erasure of Jefferson's enslaved chef James Hemings (older brother of Sally Hemings, an enslaved woman who bore six children by Jefferson) and other persons he enslaved. Because the creator of most of its records was an enslaver, this database, like its analog archival equivalent, does not provide adequate access to information about enslaved persons who lived at Monticello. Users who search for a person in this database

can enter a name in a search box and choose "author," "recipient," or "either" to find whatever documents Jefferson sent to or received from that person. As Klein notes, using this search technique for James Hemings returns no results.[40] While it may not be surprising that Jefferson did not correspond with Hemings, the lack of any document to or from Hemings in the database is symptomatic of the erasure of Hemings and other people enslaved by Jefferson in this archive. Another search strategy is to type "James Hemings" into the text search box. This search yields twenty-six results, a number that indicates his presence in Jefferson's life, but as more of an object than as a human subject with whom Jefferson might have corresponded. The archival silence surrounding Hemings is twofold: he is largely absent from the physical records in the archive, and the database is not structured to provide access to the few traces he left in the archive. This double silence surrounding Hemings in this database is an example of Marlene Manoff's comment regarding users of digitized archives that "hidden algorithms and other computational processes invisibly shape their research."[41] To learn more about Hemings in this archive, users must read the records against the grain, and Klein's study is an excellent example of this practice. In her use of data visualization techniques to analyze all letters mentioning Hemings, Klein wrote a Python script that created an arc diagram of all the persons who wrote or received letters from Jefferson in which Hemings is mentioned. Klein argues that this visualization illustrates Hemings's presence in the archive that might not be visible otherwise.[42] Klein then explains how she used name entity recognition to identify references to Hemings in fifty-eight letters in the archive that mention Hemings or his family and produced a second arc diagram with each person represented by a node. instead of connecting only one arc to each node, in this diagram, many nodes connect to multiple arcs (see Figure 3). Each arc linking two nodes represents a letter in which the persons represented by the nodes both appear. These arcs illustrate the relationships among white, freed, and enslaved persons—including Hemings—to show the complexity of relationships of power, dependence, and support in which he was involved.[43]

Datafication as Colonialist Oppression

While good reasons exist to believe that digital applications to slavery studies are valuable, some DH scholars express concerns about the effects of representing enslaved and freed persons as data. In discussing the "marking up" of the bodies of enslaved persons in databases, Jessica Marie Johnson argues that these "[d]atabases . . . reinscribe enslaved Africans' biometrics as users transfer the racial nomenclature of the time period . . . into the present and encode skin color, hair texture, height, weight, age, and gender in new digital
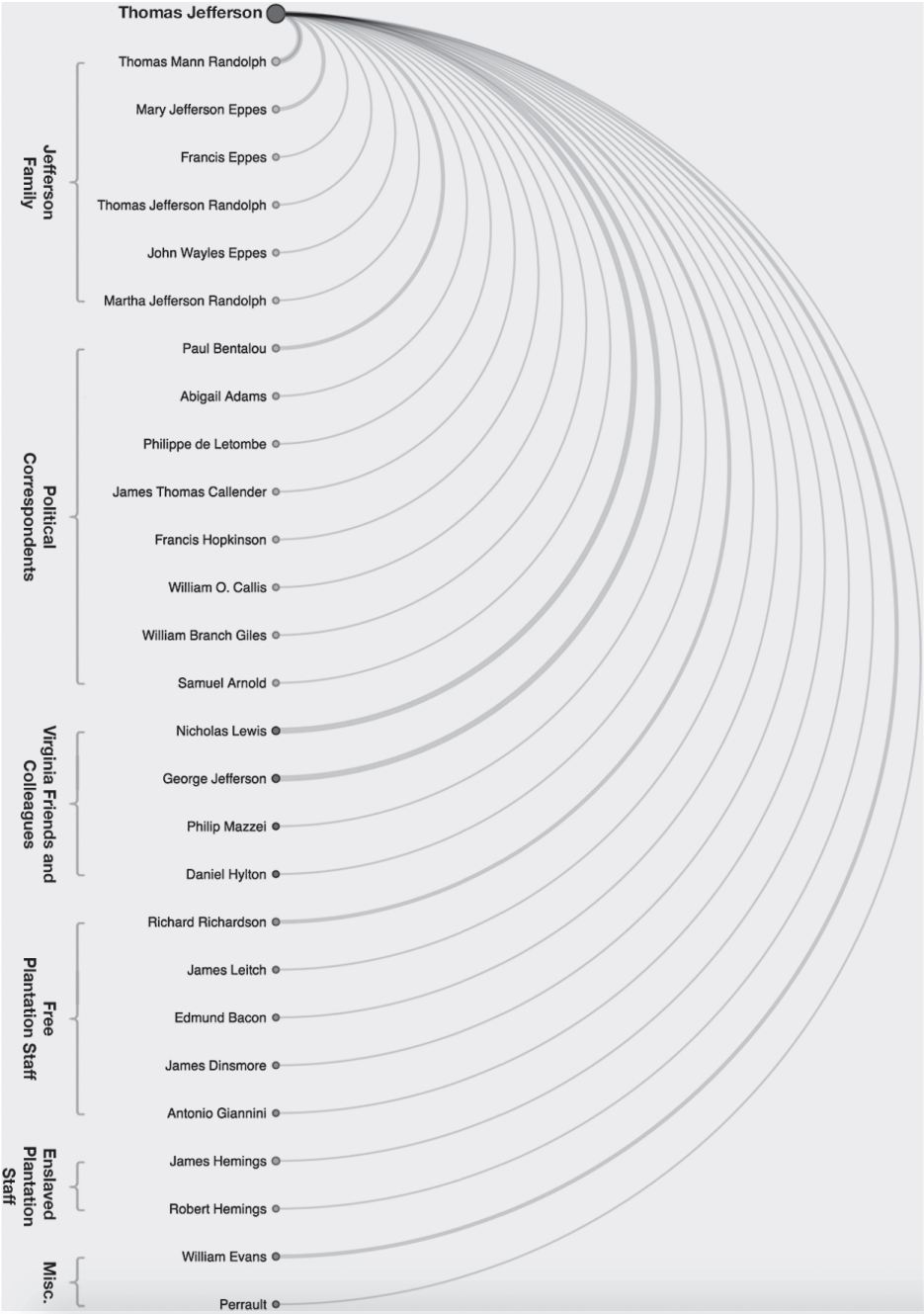
FIGURE 3. Visualization of Jefferson's correspondence concerning James Hemings. Width of arc indicates relative frequency of correspondence. Image by Lauren F. Klein.[44]

forms, replicating the surveilling actions of slave owners and slave traders."[45] On a more general level, Johanna Drucker states, "[t]he graphical forms of display that have come to the fore in digital humanities in the last decade are borrowed from a mechanistic approach to realism, and the common conception of data in those forms needs to be completely rethought for humanistic work. . . . the sheer power of the graphical display of 'information visualization' . . . seems to have produced a momentary blindness among practitioners who would never tolerate such literal assumptions in textual work."[46] It is useful to remember that the word *data* (and the seldom-used singular form *datum*) is derived from the Latin word *datum*, which means "a thing given."[47] Agostinho notes that the reduction of human bodies to data is central to colonial archives and that the digitization of such archives can lead to a re-enactment of colonial violence on these bodies: "The reinscription of colonial modes of organizing knowledge into the database is often complemented and amplified by tools and features that offer users new modes of 'mining' the archives . . . which can result in modes of access that further commodify and abstract already abstracted bodies."[48] In creating and analyzing data about slavery, then, we should beware of reducing Black lives to things in the same way that enslavers and traders of enslaved people denied the humanity of Black people.

The notion that markup languages are, or even can be, neutral is a fiction, and, while such languages can perpetuate the dehumanization of historically oppressed peoples, encoding standards can promote social justice. One such project is the BlackDH Schema Project, which Jessica H. Lu and Caitlin Pollock describe as "an effort to reimagine the *users* and *uses* of TEI, to move toward discovery, access, research, and preservation that centers Black people, Black lives, and Black cultures, rather than relegates BlackDH to the margins as an *addendum to/variation on* text encoding" [italics in original].[49] Likewise, Holterhoff argues for the use of "heavy editing—metadata that is voluminous, polyvocal, and critical" (including TEI tags) to contextualize racist materials in digital archives.[50] Such an approach to presenting and formatting digitized archives of slavery counters the dehumanizing tendencies of quantifying Black people that pervades slavery-related archival records and rejects the claims of neutrality that, until the last few decades, have pervaded the archival profession.

The dangerous possibility of reducing humans to things through data analysis is linked to the fallacious assumption that such analysis can lie outside of power, subjectivity, and bias. As Johnson observes, "[t]here is nothing neutral, even in a digital environment, about doing histories of slavery, and technology has not made the realities of bondage any more palatable or easier to discuss across audiences or platforms."[51] The assumption that digital technology is neutral, which Johnson addresses here, is a treacherous pitfall that DH scholars and archivists should consciously avoid, because such assumptions tend to

obscure (intentionally or unconsciously) the connections between technology and social power, especially inequities of such power. Safiya Umoja Noble rightfully critiques

> the alleged "neutral" stance that many in the fields of information studies and digital humanities assert. It is through this stance of *not* being engaged with the Western colonial past, a past that has never ended, that we perpetuate digital media practices that exploit the labor of people of color, as well as the environment. If ever there were a place for digital humanists to engage and critique, it is at the intersection of neocolonial investments in information, communication, and technology infrastructures: investments that rest precariously on colonial history, past and present.[52]

Fortunately, many of the archivists and DH scholars working with records of slavery and other forms of oppression seem to show a self-awareness of their activist, interventionist motivations. Little can be gained through digital applications to slavery if the purpose is simply to make the subject more relevant to people who are fascinated by new digital technologies. Noble warns against neglecting patterns of exploitation in DH studies of Black culture: "This turn or institutional shift away from the interrogation of exploitation often leads us to focus primarily on cultural production, such as collecting and curating artifacts of culture among those communities underrepresented in traditional DH work; it leads us to digitize Black culture, but not to use it in service of dismantling racist systems that contain and constrain freedom for Black bodies."[53] Digitizing Black culture has great potential value, so rather than reversing the pattern that Noble describes in DH scholarship, ideally, DH as a field should continue such digitizing initiatives *and* use digital tools to create critical analyses of oppressive hierarchies to weaken or destroy them. DH scholars who design websites, databases, interactive maps, and other tools for studying slavery should avoid the reification of humans through data and should acknowledge that data and digital technologies are not ideologically neutral or pure. These technologies can perpetuate institutions and paradigms that dehumanize groups of people, and, conversely, they can resist those institutions and paradigms. Such resistance may include what Gallon calls the "technology of recovery," which she links to "efforts to bring forth the full humanity of marginalized peoples through the use of digital platforms and tools."[54]

Another issue that emerges in the scholarly literature about applying digital technologies to slavery studies is the lack of recognition for the digital labor that goes into producing these projects. Zack Lischer-Katz points out that digitization in academic libraries is seldom viewed as intellectual labor, and he warns that "[w]orkers who engage in labor that is hidden or made symbolically invisible are at much greater risk of being marginalized materially."[55] In her analysis of the silence of James Hemings in the Thomas Jefferson papers digital archive,

Klein comments on the relationship between these digital projects and humanities scholars: "this digital labor remains not only invisible, but unacknowledged by most humanities scholars."[56] Rusert expands upon this argument:

> scholars *using* digital archives and other resources should also think about how their use of digital projects and databases accounts for the various levels of invisible labor that make them possible. . . . Of course, the invisibility of digital labor is particularly ironic in the contexts of projects recounting the stories of enslaved labor. . . . scholars of enslavement . . . might lead the way in incorporating analysis of digital labor into scholarship that relies on digital content and interfaces.[57]

Rusert's comparison between digital labor and enslaved labor are valid, but we should be careful about pushing such comparisons too far. Nevertheless, these digital projects are valuable additions to the slavery archives, and the work and persons that produce these projects should be acknowledged.

These projects are valuable not only because slavery and enslaved people should be remembered and represented fairly in archives, but also because the digital nature of these projects adds meaning to the archival representations of enslaved people. For instance, the website of the Early Caribbean Digital Archive states on its "Decolonizing the Archive: Remix and Reassembly" page that digitization changes how we encounter the archive because it is not sequential, and it recombines elements of analog texts in the archive.[58] Thus, digitization of the archive becomes "an invitation to explore the nature of textual construction . . . in existing analogue texts and in our digital re-presentations and remediations of them." During a 2019 interview, Ryan Cox pointed to two major benefits of applying digital technologies to archival records relating to slavery. First, he noted, such technology "improves that connectability between the record series that are capturing bits of information that are related to other records."[59] This benefit has become more pronounced as the Web evolved from the linking of documents to the linking of data, so that one can find information about an enslaved person when that information is linked to dates, places, and other persons and when databases allow users to employ a variety of browsing and searching strategies. According to Cox, another major benefit of digital applications to slavery archives is the potential for "repurposing a record," which entails "looking at a record with a different lens than it was intended by the creator of a record."[60] Such an approach can be traced back to T. R. Schellenberg's concept of an archival record's "secondary value," which is historical and independent of the creator's intention in creating the record.[61] In examining records relating to slavery, colonialism, and other forms of oppression, archivists and users can step outside of or resist the ideological framework of the records creators and use the records for purposes that the creators might not have imagined. As Eric Ketelaar argues, archivists and archival researchers

can counter the hegemonic framework of records created in oppressive contexts by learning "to look up from the record and through the record, looking beyond—and questioning—its boundaries, in new perspectives seeing with the archive, . . . trying to read its tacit narratives of power and knowledge."[62] This counterhegemonic, repurposing approach is employed by Sneha Reddy, who examined official French military records of battlefield actions and conditions in Palestine and Syria during World War I to find information about colonial North African and Indian soldiers stationed there.[63] The experiences of enslaved persons, like those of the colonial soldiers discussed by Reddy, can be revealed by reading against the grain of official records. For instance, in the Legacy of Slavery in Maryland collection, while an advertisement written and paid for by the enslaver William O'Hara was intended to help recapture John Whittaker, descriptions of Whittaker's scars or injuries could be used by researchers to find out what kind of work that person did or how abusive the enslaver was. Other researchers looking for enslaved or enslaving ancestors may find key information about their ancestors in such documents.

In his discussion of the relationship between archives and the public, Terry Cook writes, "[e]ngaging the citizen seems to me absolutely critical" and "it is even more relevant now for our digital age, when such engagement is all the more possible technologically and expected socially."[64] Digital applications offer archivists more possibilities for creating access to records and provide researchers with more ways of finding, connecting, understanding, and interpreting slavery archives than was possible thirty years ago. Fortunately, many DH scholars and archivists are working hard to provide others with a fuller understanding of slavery and its painful legacies. Some examples of digital projects examined in this article reveal the limited knowledge we have about slavery, enslaved people, and their enslavers. In many cases, these limitations stem more from the biases or lacunae in the records of slavery than from the digital technologies themselves, though we can also look forward to the application of more advanced technologies to learn more about this topic in the future. Hopefully, archivists and DH scholars working with records relating to slavery will continue to explore the possibilities of using digital tools to reveal new insights about transatlantic slavery. However, while doing so, they should remember that the goal should not be the simple quantification of suffering or the design of sophisticated interactive maps, but rather a deeper understanding of an infamous period in human history and of the suffering, resistance, and humanity of enslaved persons.

Notes

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ABOUT THE AUTHOR

Robert Nowatzki holds an MLIS degree from Kent State University as well as an MA and a PhD in English from the University of Illinois. He taught African American and American literature for over twenty years at several midwestern universities before entering the archival profession. He is the author of *Representing African Americans in Transatlantic Abolitionism and Blackface Minstrelsy* (2010) and several articles on African American literature and history and coauthor of *Research Guide to American Literature: Romanticism and Transcendentalism 1820–1965* (2010). He is currently an archives technician at the National Archives and Records Administration facility in College Park, Maryland.