The In/Visible, In/Audible Labor of Digitizing the Public Domain

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Abstract

In this article I call for more recognition of and scholarly engagement with public, volunteer digital humanities projects, using the example of LibriVox.org to consider what public, sustainable, digital humanities work can look like beyond the contexts of institutional sponsorship. Thousands of volunteers are using LibriVox to collaboratively produce free audiobook versions of texts in the US public domain. The work of finding, selecting, and preparing texts to be digitized and published in audio form is complex and slow, and not all of this labor is ultimately visible, valued, or rewarded. Drawing on an ethnographic study of 12 years of archived discourse and documentation, I interrogate digital traces of the processes by which several LibriVox versions of *Anne of Green Gables* have come into being, watching for ways in which policies and infrastructure have been influenced by variously visible and invisible forms of work. Making visible the intricate, unique, archived experiences of the crowdsourcing community of LibriVox volunteers and their tools adds to still-emerging discussions about how to value extra-institutional, public, distributed digital humanities work.

At LibriVox.org there are eight different audiobook versions of Lucy Maud Montgomery's *Anne of Green Gables*, all created by volunteers for LibriVox's public domain audiobook collection. The most recent of these versions was begun and completed in 2016 — not in response to any great need for another free digital audio version of the book, but explicitly because such a well-loved story was seen as an unintimidating and fun way for those less familiar with LibriVox to engage and become more familiar with the community's audiobook-making processes. Another children's classic, *Little Women*, was also being re-recorded in its fourth version that summer, and veteran volunteers like MaryAnnSpiegel^[1], who coordinated the 2016 *Anne*, recognized the popularity of these works as potentially useful gateways through which newer LibriVox volunteers could learn and engage with the production processes of the LibriVox audiobook project [Spiegel 2016].

LibriVox workflows have developed in an ad hoc manner, across multiple online and offline spaces, negotiated by volunteers who were learning together how best to support and steward this open digital project. Built upon the affordances provided by new models of collaborative production [Howe 2006] [Howe 2008] [Shirky 2010] and the increasing availability and accessibility of digital tools and platforms, the LibriVox project invites any willing volunteers to join in their mission "To make all books in the public domain available, for free, in audio format on the internet" [LibriVox, n.d.]. LibriVox productions are most often deeply collaborative, with several readers recording smaller sections of a text. All languages, accents, and reading styles are welcome, and anyone willing to propose, manage, and complete an audiobook project is encouraged to contribute. Aside from an insistence on public domain content recorded in standard, accessible file formats, there are no firm rules about how volunteers perform this work. LibriVox volunteers operate collaboratively, but independently, without institutional sponsorship and without much official direction or management beyond their own transient, global, online community of practice. However, there is a need for consistency and some degree of shared policy in coordinating the contributions of thousands of diverse volunteers. Volunteers must find ways to reliably coordinate the labor not only of recording and distributing audiobooks, but also the labor of developing, documenting, and maintaining a set of "standard," inviting production processes, while also allowing the project to remain open, flexible, and relatively convenient for current and prospective members. The dual priorities of maintaining an open, inviting community while also aiming for clear, accessible, and consistently high-quality recordings from all volunteers can occasionally seem at odds. Each volunteer confronts and negotiates her own sense of balance within that tension, and along the way, subtly reinforces or undermines the current status quo within the wider project. Within such a context of production, where individuals from diverse cultures are encouraged to contribute as much or as little as their time and interests allow, how do LibriVox volunteers (collaboratively and individually) navigate the technical, sociocultural, and material contexts in which their audio recording and editing work takes place?

By tracing the digital publishing history of LibriVox and examining how its volunteers have managed and negotiated procedures and policies for their ongoing collaborative work, I begin to make visible the intricate, unique, archived experiences of these volunteer digital humanists, while acknowledging that there are myriad ways in which volunteers' efforts — whether with LibriVox or any other public digital humanities endeavor — can never fully be accessed or quantified. In what follows, I situate LibriVox as a valuable digital humanities project and argue for more scholarly recognition of and engagement with public, volunteer digital humanities projects. I ask that we consider what digital humanities work can and does look like outside of the constraints and affordances of institutional or scholarly sponsorship.

Examining LibriVox, its history, and its modes of collaboration more closely allows us to begin to understand the evolving workflows of this public, open digitization work and to make visible the work that has helped support thirteen years of functional, productive, and sustained collaboration across cultures, languages, platforms, and media. Often the work of organizing, networking, planning, meta-writing, negotiating

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change, accommodating new members, moderating disputes, and other behind-the-scenes work that is often a part of complex digital humanities projects can be erased or made less visible. Such foundational, behind-the-scenes work can easily blend into the shapes of larger tasks that leave deeper, more obvious traces. As Star and Strauss (1999) discuss, what is "counted" as work may be marked by a "gamut of indicators" — physical, social, legal, and so on, and "All along this continuum, the visibility and legitimacy of work can never be taken for granted" [Star and Strauss 1999, 15]. Impressive finished projects can easily eclipse the smaller, more thinly-spread negotiations and interpersonal work taken on by multiple volunteers across weeks or months or years. Circumstances of material or social privilege can also very easily be overlooked, made invisible by the assumptions we make about the supposedly egalitarian nature of digital technology and distributed, networked communities. Only in retracing the archived conversations of the LibriVox community can the extent of volunteers' collaborative thinking, rethinking, and working be made more consistently visible.

Drawing on an ethnographic study of 12 years of archived discourse and documentation, I interrogate digital traces of the processes by which several LibriVox versions of *Anne of Green Gables* have come into being, watching for ways in which policies and infrastructure have been influenced by variously visible and invisible volunteer efforts. Recognizing the value of this interpersonal, tenuously connected, volunteer-supported work within the context of LibriVox will allow us to more readily appreciate — and potentially support and reward — such work in other arenas. I recognize LibriVox and other social spaces of production (Project Gutenberg, the Internet Archive, WikiSource, or Goodreads, for example) as sites of legitimate labor, not in order to claim that such labor requires monetary compensation, nor that it should necessarily be granted any of the recognition we tend to assign to work in a traditional sense, but in order to showcase the significance and impact of such work, and to begin thinking about more inclusive and intersectional ways of valuing public, amateur contributions to the digital humanities.

A Global, Digital Audiobook Picnic

Many recent discussions of public, crowdsourced instances of digital humanities production follow institutionally-sponsored projects seeking volunteers to help complete especially laborious tasks such as tagging, transcribing, or proofreading [Causer and Wallace 2012] [Manzo at al. 2015] [Bilansky 2015]. In contrast to these types of projects, LibriVox has always employed an entirely volunteer-driven model of production, and its processes and output are much more open. Any volunteer can join the project, regardless of expertise or language background, and any internet-connected listener can access and use the audiobooks that volunteers produced.

As a crowdsourcing endeavor without institutional sponsorship and without commercial incentive, the LibriVox project falls into a model that Shirky (2010) describes as neither public (the way most roads are funded), nor private (the way most cars are produced), but social — or "how most picnics happen" [Shirky 2010, 118]. In the social sector, groups or communities create value among themselves, primarily for themselves or likeminded others, following their own norms and guidelines without direct pressure from any outside economic or political interests. Within the strict legal boundaries of the US public domain, LibriVox volunteers otherwise have the freedom to determine their own policies and workflows amongst themselves. Five fundamental principles frame the project's mission and practices:

- · Librivox is a non-commercial, non-profit and ad-free project
- · Librivox donates its recordings to the public domain
- Librivox is powered by volunteers
- Librivox maintains a loose and open structure
- Librivox welcomes all volunteers from across the globe, in all languages [LibriVox, n.d.]

Because all LibriVox audio editions are donated back into the public domain, others are free to do whatever they like with them, whether for personal, educational, or commercial purposes. Thus, in the case of LibriVox, value produced within the group is also shared with non-members, who are welcome to share and distribute that work further.

The LibriVox catalog currently includes more than 12,500 audiobooks, read in more than 90 different languages. [2] Any previously published text free of copyright restrictions is eligible for inclusion; volunteers have recorded novels, plays, poetry, cookbooks, textbooks, and government documents. Included among these are versions of well-known stories like *Beowulf* and *Hamlet*, as well as many other more obscure texts that commercial publishers would have very little incentive to reproduce. Monetary incentives and financial profit are not the primary values driving community-based production models — the novelty of participating, the social capital or ethos gained through providing service, and personal enjoyment of the activity can be equally powerful motivations. Because LibriVox functions so separately from commercial frames of value and production, its production model and history are particularly valuable examples of distributed, decentralized, extra-institutional work.

Though LibriVox volunteers, for the most part, do not act as scholars, nor as paid professionals or experts, their work does count as digital preservation, as humanities work, and as generous public service. The work of finding, selecting, and preparing texts to be digitized and published in audio form can be complex and slow. According to the needs of each project, LibriVox volunteers may perform the labor of curators, copyright sleuths, digital content managers, voice artists, project managers, mentors and instructors, researchers, translators, audio producers, and technical writers. Not all of this volunteer labor ultimately remains visible (or audible) to those who download and listen to finished LibriVox audiobooks, nor is it even visible to all volunteers.

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The Makings of Digital Audiobooks: Past and Present and Future

LibriVox will celebrate fourteen years of existence on August 10, 2019. In the time since its founding, the Librivox project has grown and shifted in response to new technological developments and as a result of volunteers' changing levels of engagement and literacy with regard to what LibriVox is about. As LibriVox founder Hugh McGuire reflected in a 2007 blogpost, "the whole thing — the system — evolved like an organism, getting more complex in response to environmental challenges. More readers, more books, more languages, more projects required a slow evolution of a management" [McGuire 2007]. Audio recording practices, project management practices, and digital cataloging procedures at LibriVox have evolved under the influence of past practices. Community norms and standards have been shaped by small, ad hoc, or makeshift decisions influenced by the material circumstances, constraints, and affordances of the project's context overall and various volunteers' contexts individually. Some of this growth and evolution is recorded and visible in the archived digital artifacts of the community. Some, however, is more hidden, or has been lost, ultimately making a full recovery of LibriVox's distributed history impossible.

Taking an ethnographic approach to the LibriVox project [Boellstorff, Nardi, Pearce, and Taylor, 2012] [Hine 2015] [Adams and Thompson 2016], I have observed and participated in the processes required for making free, public domain audio. Immersing myself in LibriVox processes has been crucial for learning more about the experience, norms, and nuances of the community. As I have observed the community and "learned-by-doing" [Hine 2015], I have also followed Catherine Adams and Terrie Lynn Thompson (2016) in attending to and "interviewing" digital artifacts, interfaces, practices, and micropractices by "listening to things, observing them in action, discerning their coconstitutive influences, as well as relations with other entities and beings around them" [Adams and Thompson 2016, 17-18]. Attending to aspects of intertextuality and interactivity among various LibriVox participants, online spaces, and other artifacts, particularly those records gathered by the catalog database, website, and LibriVox forums, has helped me to reconstitute and triangulate details from the history of LibriVox's ongoing production and documentation work.

LibriVox volunteers share and manage their recording and editing work in generous, flexible, and sometimes idiosyncratic ways. They adopt and adapt various applications, platforms, hardware, software, and multimodal file formats as needed, requesting help and offering tutorials and advice in the LibriVox forums along the way. No two volunteers will have the same recording space or environment, nor will they follow the same processes exactly. While many volunteers use the open source recording software Audacity, others have found and continue to find their own ways to contribute using other platforms, tools, and processes.

My research has involved clearly articulating and representing the activities of LibriVox volunteers as I retrace and untangle their past and present practices. Using what evidence that remains of those practices, I must "inventively reconstruct anecdotes from a variety of sources in order to provide a more co-constitutive account of humans thinking, dwelling, and building with and through their nonhuman surround" and "gather observational threads and interview snippets, then carefully weave human and nonhuman storylines back together" [Adams and Thompson 2016, 29]. Importantly, this postmodern methodology "means letting a thing retain its silence" even "while gently coaxing it into the light, giving it time and space to speak so that we might take notice" [Adams and Thompson 2016, 18]. The iterative process of coaxing LibriVox artifacts into the light has involved tracing and retracing my steps through the digital archives of this idiosyncratic community, cross referencing dates and events that have been partially documented across forum posts (see Figure 1), podcast episodes, website updates, and catalog pages (see Figure 2).

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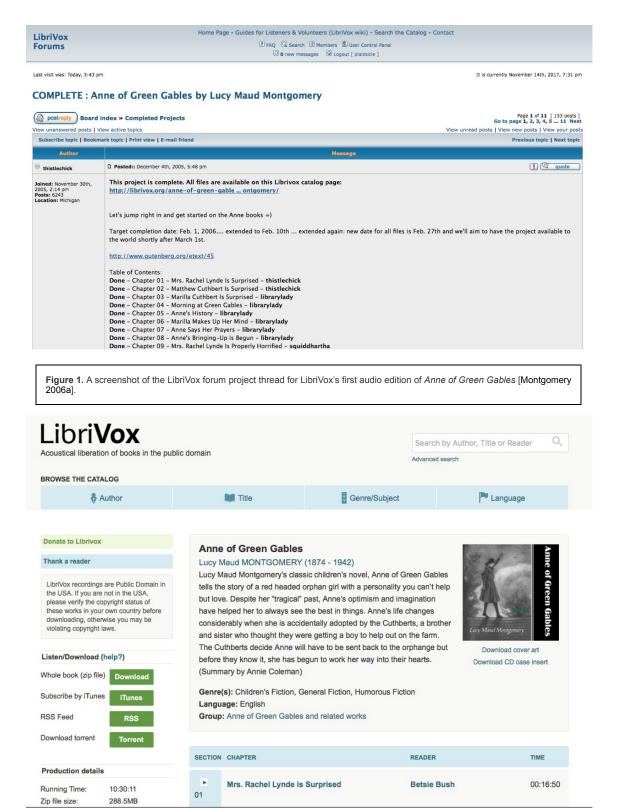


Figure 2. A screenshot of the LibriVox catalog page for Anne of Green Gables [Montgomery 2006a]

The eight LibriVox versions of *Anne of Green Gables* serve as useful touchstones for this article's exploration because their production has spanned a wide range of LibriVox history (2005–2016) and a range of project types (collaborative, individual, and one dramatic performance). Together, all eight versions include contributions from 51 individual volunteer readers, coordinators, and proof listeners who are part of a broad, global contingent of LibriVox members. By reviewing this range of audio production cases, I begin to uncover, recover, trace, and retrace what evidence is and is not left behind by volunteers as they contribute to the living archive of project documentation and public digitization work of LibriVox.

Table 1 organizes evidence and theories as to the structure and infrastructure of each Anne of Green Gables project, with details drawn

primarily from the original project threads for each version. These project threads typically include a record of the volunteers who coordinated and completed each project, instructions for collaborators, links to the original e-text and to audio files in progress, and a series of back-and-forth updates and conversations about each version's progress over time. LibriVox's public forums help to preserve the shared knowledge and interactions of volunteers, old and new, over time.

Version	Version Image	Version Details	Date Begun	Total time in production*	Run time (hh:mm:ss)	Notes
Anne of Green Gables [Montgomery 2006a] https://librivox.org/anne- of-green-gables-by- lucy-maud- montgomery/	to describe	Collaborative; 12 readers; 1,933,797 Views;[3] 42 Favorites; 1 Review	4 December 2005, 5:48 pm	114 days (~3.5 months); 153 forum posts	10:30:11	The first LibrlVox "edition" was completed under the direction of thistlechick (Betsie Bush), who (like all volunteers at the time) was brand new to the LibriVox community. Interestingly, the cover art that now attends the catalog entry for this version was not created until 2011, by volunteer Janette Brown. This version has the most views according to Internet Archive, perhaps because it has been available the longest. Project thread: https://forum.librivox.org/viewtopic.php? f=16&t=319
Anne of Green Gables (version 2) [Montgomery 2006b] https://librivox.org/anne- of-green-gables-by- lucy-maud- montgomery-2/	Anne Green Cables	Solo by rachelellen; 446,567 Views; 16 Favorites; 5 Reviews	10 October, 2006, 2:52 am	70 days (~2.5 months); 140 forum posts	9:34:43	Rachelellen began this project with some worry that she was unnecessarily duplicating the concurrently in-progress solo that would become Version 4. However, she was encouraged by the community to continue anyway, in line with the LibriVox principle that readers should read and record what they love. Project thread: https://forum.librivox.org/viewtopic.php? f=16&t=3810
Anne of Green Gables (version 3) [Montgomery 2007] https://librivox.org/anne- of-green-gables-by- lucy-maud- montgomery-3/	lan et den sam	Solo by gypsygirl (Karen Savage); 1,931,307 Views; 48 Favorites; 5 Reviews	2 June 2007, 7:48 am	10 days; 62 forum posts	8:37:32	Very little discussion attended this version. Of the eight, it boasts both the shortest production time and the shortest total running time. The soloist, gypsygirl, also recorded several other Anne books in the series. Project thread: https://forum.librivox.org/viewtopic.php? f=16&t=8890
Anne of Green Gables (version 4) [Montgomery 2008] https://librivox.org/anne- of-green-gables-by- lucy-maud- montgomery-4/	Anne of Green Galders Gald Green Galders Gald Green	Solo by LibraryLady (Annie Coleman Rothenberg); 136,161 Views; 4 Favorites	3 August 2006, 1:34 am	754 days (2+ years); 22 forum posts	10:52:22	Though this solo was started second, Versions 2 and 3 were completed sooner. Sounds of LibraryLady's material context as a reader, such pages turning, are present in this recording. Various wordings also evidence the evolving LibriVox policies regarding the introductory disclaimer. Cover art for this edition, like that of Version 1, was created by volunteer Janette Brown, but not added to the catalog entry until 2012. Project thread: https://forum.librivox.org/viewtopic.php? f=16&t=3083
Anne of Green Gables (version 5) [Montgomery 2009] https://librivox.org/anne- of-green-gables- version-5-by-lucy- maud-montgomery/	log with the second sec	Collaborative; 11 readers; 55,641 Views; 1 Favorites	10 November 2009, 5:12 pm	14 days (2 weeks); 75 forum posts	9:31:36	This version was created as a special Christmas project, and so required a much quicker turnaround. The usual LibriVox guidelines for timing and flexibility were superseded by the coordinator's requirements. Project thread: https://forum.librivox.org/viewtopic.php? f=16&t=22359
Anne of Green Gables (version 6) [Montgomery 2013] Originally: https://librivox.org/anne- of-green-gables-by- lucy-maud-	Ann James	Solo by Woolly Bee (Sarah Parshall); 192,349 Views	10 January 2013, 8:14 pm	202 days (~6 months); 191 forum posts	11:06:45	Initially, this project was (most likely mistakenly) cataloged as Version 5. A significant database overhaul took place around the time it was finished in late summer 2013, and apparently that shift affected the project's metadata and final URL. Project thread:

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montgomery-5/ Later updated: https://librivox.org/anne- of-green-gables- version-6-by-lucy- maud-montgomery/						https://forum.librivox.org/viewtopic.php? f=16&t=43837
Anne of Green Gables (version 7) (dramatic reading) [Montgomery 2010] https://librivox.org/anne- of-green-gables- dramatic-reading-by- lucy-maud- montgomery/	Aune of Green Gree	Dramatic; 20 readers; 629,786 Views; 11 Favorites	8 December 2010, 4:48 pm	55 days (~2.5 months); 244 forum posts	9:39:29	The major roles for this dramatic reading were pre-cast by the coordinator — that is, she invited particular volunteers to take on those parts before opening the project to the community as a whole [Lipshaw 2010] [Chesley 2018a]. This practice has been discussed within LibriVox Community Podcast episodes as somewhat controversial [Daly 2012]. Version 7 may not have originally been labelled with a version number; none is included in its URL, and the mismatched cataloging with 2013's "version 6" suggests that the parenthetical "version 7" here may have been added during later updates. Project thread: https://forum.librivox.org/viewtopic.php? f=16&t=30001
Anne of Green Gables (Version 8) [Montgomery 2016] https://librivox.org/anne- of-green-gables-8-by- lucy-maud- montgomery/	N	Collaborative; 14 readers; 8,707 Views; 1 Favorite	23 March 2016, 1:03 pm	118 days (~4 months); 196 forum posts	10:20:51	This recording was specifically undertaken as a way of familiarizing new volunteers with the ins and outs of LibriVox. Project thread: https://forum.librivox.org/viewtopic.php? f=16&t=60342

Table 1. Details from eight LibriVox versions of Anne of Green Gables, for comparison

Though all eight versions, according to their catalog listings, appear to have been based on the same public domain source text — one digitized for Project Gutenberg by David Widger and Charles Keller in 1992 [Montgomery 1992] — the reader for Version 4 seems to have read directly from a printed and bound copy. The sounds of pages turning leave audible traces in her recordings. In her case, the catalog's link to Project Gutenberg's e-text could be a convenient shorthand, seeming to overwrite the true provenance of her performance. This instance in which the true embodied practice of an individual LibriVox volunteer is hidden behind a screen of metadata, presumed policy, or other project management convention, is one among many. Conversely, there are also examples where community policies and conventions are superseded by the specific needs or constraints of a volunteers' material situation. Inconsistencies are prevalent across many of the very first items cataloged. Only later in LibriVox's development were readers regularly given instruction to read from a specific digital text and only that text. Even still, knowing precisely which text (or in which format, browser, or type of screen) an individual reader read from in every particular case would be a difficult matter to ascertain.

Incarnations of Anne of Green Gables at LibriVox: In/Visible Chronologies

Following my survey of all eight versions, I conducted a more detailed review of four particular *Anne of Green Gables* versions, noting specific changes in file storage and retrieval, recording protocol for all audio sections, and other behind-the-scenes elements of LibriVox work. Each of these projects has left behind time-stamped traces of both the individual and the collective efforts involved in transforming alphabetic texts into accessible audio content. Some of these traces, in combination with others scattered around the LibriVox forums, reveal particularly interesting shifts in LibriVox's collaboratively-built digital infrastructure, procedures, and policies. Some traces are much less scrutable, highlighting unpredictable contrasts between visible and invisible work.

- The very first version (2005–2006) has left prominent traces of the highly transient, decentralized nature of LibriVox's early infrastructure. Works-in-progress were temporarily hosted on third-party file storage sites or donated server space.
- Over the two-year period (2006-2008) during which Annie Coleman worked on Version 4 of Anne of Green Gables, her solo project absorbed several changes in the policies and procedures of the still-evolving LibriVox community.
- A multitude of voices and volunteers came together for the most labor-intensive version of the text the dramatic reading, completed in 2011. The individuals and voices present and not present in the project thread compared to those present (and not present) in the finished catalog entry for this version illustrate core LibriVox principles of openness, patience, and flexibility.
- Anne of Green Gables Version 6 (originally mis-cataloged as Version 5) was actually completed 3 years after what is currently
 labeled in the catalog as Version 7. Such quirks and inconsistencies in metadata and content management highlight deep

complexities within the catalog's database infrastructure and its management/re-management over time.

Through these example cases, I observe that LibriVox's emergent, community-made procedures variously accommodate and at times resist the changing expectations of the project's volunteers and its outside audiences.

2005-2006: Scattered Seeds of Digital Infrastructure

The enthusiastic book coordinator, thistlechick (Betsie Bush), who opened the very first collaborative *Anne of Green Gables* project for LibriVox had been a member for only a week when, in December of 2005, she began inviting contributions to this collaborative reading. LibriVox was roughly four months old at this stage, and much of its infrastructure had yet to be built. That month, the number of active volunteers fell just short of 200, and only a dozen audiobooks had been completed [Mowatt 2007]. Standard technical specifications for audio files had not yet been finalized, and discussions about creating a searchable, database-driven catalog were still slowly progressing.

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LibriVox's early growth and development into an online community and eventually an extensive global collaboration align with Wenger, White, and Smith's observations about communities of practice: "Unlike the trajectory of a team that's planned from the start, communities unfold over time without a predefined ending point. Communities often start tentatively, with only an initial sense of why they should come together and with modest technology resources" [Wenger, White, and Smith 2009, 540]. The beginnings of LibriVox were tentative, but also bold. Volunteers gathered first to a simple blog, then to forums, making do with whatever other digital platforms and tools they found useful. Several coordinators donated their own server space as temporary storage for the audio files of projects-in-process, and others used third-party file transfer sites such as *yousendit.com* or *megaupload.com*. Hyperlinks to these temporary sites of storage are still present, but broken, in this and many other early LibriVox project threads. Though no longer useable as paths to the works-in-progress they once were, they leave traces that evidence volunteers' generosity, savvy, and resourcefulness in the early days of LibriVox. The ability and willingness to share/donate personal resources (such as time and server space) and the technical savvy to do so were important factors in helping LibriVox grow and settle into the robust volunteer space it has ultimately become.

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The practice of relying on temporary file storage, whether from third-party sites or from generous volunteers with their own server space, continued for several months. It wasn't until nearly two years later when LibriVox could claim its own central server space (also maintained via donation, and also meant to be temporary — all finished audiobooks are hosted more permanently at *archive.org*). Even still, to some extent, the transient nature of works-in-progress at LibriVox persists. Completed projects at LibriVox still bear consistent marks of a transience, since even the central LibriVox file storage space is continually overwritten with new works-in-progress as previous works are finished and moved to their final catalog spaces. Evidence of this in-between labor is not meant to last, but does leave behind traces of past infrastructure (or lack thereof) and infrastructural development. As the LibriVox project has become more established and developed more standardized, centralized procedures, its community has also become more accessible to volunteers who may lack the same levels of technical expertise that early volunteers were more likely to need.

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As this first *Anne* project drew to a close, LibriVox volunteers had begun discussing whether it would be worthwhile to enforce a "prooflistening" stage for all LibriVox submissions. After much debate about whether the extra effort and potential for inviting criticism [Chesley 2018b] would prove too discouraging to future volunteers, the practice was gradually adopted and eventually instituted as routine. By the time the next version of *Anne* was begun, in August 2006, prooflistening had become fairly standard for all LibriVox works.

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2006–2008: Negotiating and Enacting LibriVox Policies

The institution of the new practice of prooflistening was not the only instance of LibriVox policies changing in response to volunteers' discussion and debate. During the two years that LibaryLady (Annie Coleman Rothenberg) spent gradually recording what would become Version 4 of *Anne of Green Gables*, another small but significant change was successfully argued for and implemented — one that would subtly mark her solo rendition of the text.

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As a crucial marker of their public domain status and their origin from within the LibriVox project, all LibriVox recordings begin with an introductory disclaimer and invitation to listeners:

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This is a LibriVox recording. All LibriVox recordings are in the public domain. For more information or to volunteer, please visit librivox.org.

This official disclaimer has remained fundamentally the same in wording and in length since the beginning of LibriVox, despite occasional attempts to shorten it. During LibriVox's earliest years, readers customarily pronounced the standard disclaimer first before specifying the title, author, and chapter details of the section they were recording. And so it continued until in December 2006, roughly four months after LibraryLady began her version of *Anne of Green Gables*, another volunteer related the following in a new thread in the "Suggestions, Comments, News, & Discussion" forum at LibriVox:

As I'm listening to my iPod Shuffle (admittedly, with no screen) with shuffling switched off, iit [sic] takes a full 30 seconds to find out what track I am on. It would be helpful if we could say right away, "Chapter 30 of Mark Twain's Innocents Abroad. This is a LibriVox recording, etc., etc. ..." That way those without screens (and there are many at the screenless Shuffle level, especially in schools and school libraries) can quickly know where they are. [Sayers 2006]

For the sake of those without immediate visual access to the list of chapters or sections on a display screen, LibriVox volunteers determined together to modify the order of chapter/section numbers and the introductory disclaimer. New projects, from that time forward, would no longer begin immediately with "This is a LibriVox recording...", but would instead first note the section or chapter number of the text being recorded. Volunteer coordinators and admins adopted this policy change gradually over the next months, modifying instructional documentation along the way.

Only a subtle trace of this change exists in the first few seconds of the finished audio files of LibaryLady's *Anne of Green Gables*. The first 22 chapters, recorded between August 2006 and March 2007, begin directly with "This is a LibriVox recording," according to the older, original LibriVox convention. The very next chapter gives listeners the updated, more informative introduction, with "Chapter 23 of Anne of Green Gables" first, and "This is a LibriVox recording..." next. The remaining fifteen chapters of the book all follow this new pattern. The audible evidence of this collaborative decision about recording protocol manifests only as a sudden, easily missed change between adjacent chapters. In response to a volunteer sharing their listening experience, the LibriVox community accepted and shared the discursive labor of negotiating this change, of shifting their established recording habits, and of updating documentation across the LibriVox community to represent the change in policy.

2010-2011: Adapting Anne of Green Gables

The planning, preparation, recording, and editing of a dramatic reading entails extensive work. For the dramatic reading version of *Anne of Green Gables*, coordinator wildemoose (Arielle Lipshaw) estimated it might take a full year to complete the project. The reading would need volunteers for twenty-four distinct speaking roles, including Anne herself as Narrator. In reality, several more than twenty-four volunteer readers professed interest in joining this project, posted claims for specific roles in the project thread. Yet not all of them are ultimately credited in the catalog as collaborators.

Because LibriVox maintains a volunteer-driven, loose and open structure, contributors may perform come and go from the project, dedicating as much or as little effort as they wish. Volunteer LibriVox coordinators do not require previous audio recording experience and do not necessarily expect any lasting commitment. When sections or roles in a project are claimed but not completed within a reasonable time (determined by the project's coordinators), the convention at LibriVox is to "orphan" those sections and open them up for other volunteers to take on. Orphaned sections are common; all four of these collaborative *Anne of Green Gables* project threads contain comments about or other evidence of orphaned sections.

In the case of this dramatic reading, seven volunteers, most of them brand new to the LibriVox forums, arrived in the project thread to claim roles in the dramatic reading. Then — for reasons that now remain largely invisible and unknown — these individuals never completed their planned contributions. One would-be reader for the project, AmateurOzmologist (Miriam Esther Goldman) did submit two chapters' worth of Mrs. Rachel Lynde's lines, but disappeared from the thread with no public explanation before the project's end. AmateurOzmologist's work with this text, because it was incomplete, is entirely absent from and entirely unacknowledged in the finished audiobook.

Volunteers like AmateurOzmologist, who come to a project and get lost from it, whose un/recorded voices or other prospective efforts may ultimately not make it in to the final catalog, are still a part of LibriVox. The community values their willingness to volunteer even if it is only potential, put off until "someday, eventually." And ideal of loose, open, volunteer-powered project means that the possibility (and apparent risk) of volunteers disappearing as quickly and easily as they arrive at LibriVox, of course, is unavoidable. These realities — where volunteer relationships and connections are tentative, easily breakable, and often lost — are part of the inviting, practical modularity of LibriVox. In response, the general attitude at LibriVox is one of understanding, tolerance, and patience. To tolerate so readily the apparent "failure" of seemingly earnest volunteers may seem something of a burden to the volunteers who do complete their work in good time. But part of LibriVox's loose and open structure involves making space for those invisible, not-yet contributions from potential members of the project. Perhaps if they are too busy this time, they will come back to volunteer next year, or the year after that. Overall, volunteers have responded to the project's open flexibility with an impressive number of volunteer hours, the true quantity of which is only hinted at by the cumulative recorded run time of the entire LibriVox catalog.

2013: A Time-Traveling Anne and the Impact of Major Catalog Upgrades

When WoollyBee (Sarah Parshall) began recording what later came to be labeled as *Anne of Green Gables* Version 6, she was brand new to LibriVox and especially enthusiastic about recording this children's classic with which she strongly identified. The project took her about six months to complete and was cataloged in July of 2013. This date places WoollyBee's solo chronologically between Version 7 (the dramatic reading completed in 2010, discussed above) and Version 8 (the most recent collaborative reading, completed in 2016). The reasons for the oddly anachronistic tagging of both the solo recording and the dramatic reading are not fully made clear in any LibriVox records I investigated, but the issue is likely tied to the major catalog update that took place during the summer of 2013. That August, the final stages of an in-depth, year-long overhaul of the LibriVox databases, workflow tools, and infrastructure were implemented [LibriVox 2012a] [LibriVox 2012b]. Handfuls of error reports related to this crossover from old system to new were posted in the LibriVox forums during the first half of August 2013, including one from Woolly Bee herself concerning an apparent error with her finished *Anne of Green Gables*. Hers and most other reports during this period are answered with confident encouragement from administrators that the issues would be fixed as soon as the new catalog system was fully functional. The website and database infrastructure behind LibriVox, in combination with the distributed, ad hoc

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volunteer community that work within that infrastructure, are complex enough that quirks and inconsistencies in metadata like those noted here have likely accumulated in several other corners of the project.

Reflecting on this project, WoollyBee correctly cites it as the "seventh version" of Anne of Green Gables. She also recalls the catalog updates of 2013, and their overall impact on LibriVox, positively:

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The most notable physical change that I've seen happen to LV during the time I have been volunteering here is definitely the huge update that happened maybe 3, 4 years ago. Once everything was updated there was definitely a huge learning curve, but I like our new system so much more. It's so much easier to be a book coordinator now... it's just a much better system all around. [Chesley 2018a]

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Once more we have an instance where volunteers' labor — that of WoollyBee and the coordinators who worked on her *Anne* solo, and that of the volunteers who guided LibriVox through the upgrades and redesign process — are only visible in partial traces. WoollyBee hints at the work of re-learning how to coordinate LibriVox projects in the aftermath of the redesign. While a handful of forum announcements and blog posts communicate some of the labor involved in the update, including planned server outages, status updates, and a report of hours spent [LibriVox 2012a] [LibriVox 2012b], the full scope of individual and collective efforts to accommodate the change are not made completely transparent to the public.

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As this case illustrates, public digital humanities projects have the potential to outgrow their tentative beginnings enough to warrant drastic changes in infrastructure and procedures. Whether that change emerges from within or is imposed from without, it will require flexible, patient human cooperation. The work of evaluating, building, and implementing new technologies and the work of accommodating fellow volunteers to that new technology are both important. The agility to navigate (and help others to navigate) ongoing technical and infrastructural change are crucial for supporting a sustainable, persistent digital humanities project. Fitzpatrick (2017) offers a comforting reminder in this vein, asserting that "Real sustainability, after all, isn't just about revenue generation and cost recovery. It's about relationships, about personal and institutional commitment, about the willingness to work together toward long-term means of ensuring that the platforms we build today will not just survive but evolve with our technologies and the people who use them" [Fitzpatrick 2017, para 3]. As volunteers and their many tools join and contribute to the LibriVox system, the infrastructure they use will also continue to evolve.

Stewarding Technology, Stewarding Community

Through all of these *Anne of Green Gables* projects, relationships among human volunteers, digital technologies, interfaces, texts, recording hardware, software, and other tools intertwine and build upon each other. The time and effort volunteers donate to LibriVox, whether regularly or sporadically or somewhere in between, not only supports and maintains the project's infrastructure, but becomes part of that infrastructure itself, working towards reinforcing (and at times contradicting) the purposes and practices that bring volunteers together.

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In a global, digitally-distributed volunteer community, public and accessible instruction is crucial for the longevity of the project, and for attracting and training new participants. LibriVox's archived technical documentation, however partial, contingent, or informally distributed among the project's members, all plays a crucial role in shaping, managing, expanding, and sustaining this community of diverse and sometimes transient volunteers. Volunteers, their hardware and software tools, their forum posts, and their interactions all contribute to the stewardship and maintenance of LibriVox as a productive project and a welcoming digital community.

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Recognizing the importance of what they call "technology stewardship," Wenger, White, and Smith (2009) define the role of technology steward as one that emerges as "a natural outcome of taking care of a community that's using technology to learn together" [Wenger, White, and Smith 2009, 831]. They go on add that

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... in many cases, technology stewardship is a critical part of community leadership, facilitating a community's emergence or growth. It becomes a very creative practice that evolves along with the community and reflects the community's self-design — the process by which a community designs itself as a vehicle for learning, which includes use of technology. [Wenger, White, and Smith 2009, 854]

As individuals learn and build themselves into the LibriVox project, they take on roles as technology stewards, contingent team leaders, just-in-time facilitators, teachers, or mentors. Their various and combined efforts help the project to expand and continue to "design itself" along the way. In some cases, as we saw with the discussion about re-ordering the LibriVox disclaimer, a single person's observation about the potential needs of a group can eventually scaffold a whole new set of protocols. As volunteer Cori observed in a 2012 LibriVox forum discussion, "everything starts because one person thought it was a good idea. LibriVox itself, and all the processes and tasks within it" [Samuel 2012]. Even if only one volunteer notices and cares that something is done to serve a small subset of the community in a new or different way, their influence can spread and begin to benefit larger sections of the LibriVox project, its audiences, and the world.

Theorizing the sometimes inscrutable decisions and actions of the many participants who contribute to LibriVox is perhaps an unusual undertaking, but valuable as an avenue toward appreciating the everyday digital humanities work that happens as part of our increasingly digitally-mediated lives. Of the possible range of motives shared among LibriVox volunteers, founder Hugh McGuire writes,

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Some of us are making a stand about public, non-commercial space, about public domain, about the importance of

efforts outside the pervasive commercial framework that dominates our world. But some of us are just reading because we like it. This can be political if you wish, or mean nothing more than this: we read books and give the audio files away for free. Both are valid, both are important. [McGuire 2005]

Whether motivated by pure enjoyment, by ideology, or by a mixture of both, LibriVox volunteers are engaged in a particularly open and inclusive project of cultural preservation. However, despite prevailing LibriVox policies that disallow censorship, bowdlerization, and abridgement, an almost invisible degree of macro-censorship is inevitable within the project, driven by what volunteers have so far chosen not to read. Through the results of the choices they make in selecting and producing free audiobooks, volunteers at LibriVox collectively influence what kinds of human culture and knowledge are being collected, digitized, preserved, consumed, and circulated by global audiences. This realization echoes Griffin and Hayler's (2018) reminder that "DH tools and practices reinforce, resist, shape, and encode material realities which both pre-exist, and are co-produced by them." The labor practices behind LibriVox's ever-expanding audiobook catalog are not neutral, no matter how much LibriVox as a collective might espouse an ideal of impartiality. As is true of much volunteer work, individuals and groups who are most resource-rich, whether in material/monetary terms, education or expertise, or free time, are most likely to engage in and to benefit from such labor [Musick and Wilson 2008]. Similarly, as Bourg (2018) points out, the risks and benefits of participating in open projects are "unevenly distributed in patterns that match existing systems of oppression" [Bourg 2018, para 51]. No matter now democratic or equitable new digital spaces and platforms may seem, we cannot merely assume that all identities or perspectives are being included. Nor can we take for granted that current systems and norms are adequate for supporting and serving the needs of all who might wish to be a part of public digital humanities work.

Understanding the perspectives and values of the volunteers who are driving these processes will require further critical attention and research. Documenting the full range of motives behind all LibriVox contributions has been beyond the scope of this study, but efforts to do so could add depth to further discussions of public digital humanities work. Future research might also attend more specifically to the reception, circulation, and wider cultural effects of LibriVox audiobooks as another way of accounting for the value of the labor that is producing them.

Conclusions

LibriVox volunteers are digitizing and preserving literature and other texts in audio form in ways that afford near limitless access, redistribution, and re-use. In retracing the archived conversations of LibriVox and in re-articulating some of the organization's changes over time, I've begun to make more visible the extent of volunteers' collaborative intellectual, social, and material work. Though their efforts do not necessarily stem from scholarly interest nor have the rigor that more academic digitization projects might require, LibriVox volunteers are engaged in a thoroughly public and thoroughly digital project, making extensive portions of human culture more widely accessible to more humans. As part of this ambitious public domain project, the relatively undirected work of amateurs and volunteers can make small but meaningful differences in how the world's knowledge and information is preserved and passed down across media and across time. In turn, the kinds of documented culture available will influence the identities and lives of those audiences: the perspectives they are exposed to, the histories they may consume or to contribute to, the educational opportunities they are allowed or able to access, and the creative or economic or vocational decisions they might make.

As we recognize public, volunteer, crowdsourcing projects like LibriVox as established, yet unique, institutions of digital publishing and public digital humanities work, we also are more likely to remember that all institutions were once new, contingent, and shaped by the small decisions of regular humans making things happen as best they could with what was around. Recognizing the digitization and re-mediation work of such digital humanities projects, especially in spaces outside the typical institutions of workplaces and academia, is important in context of our increasingly distributed and decentralized world and the economic transformations that may attend increasing globalization and ongoing technological advancement. Inviting and involving more people into the processes of preserving human culture will mean that more kinds of culture, more perspectives on and from those cultures, and more embodied experiences from across diverse cultures will also be preserved and safeguarded.

Notes

- [1] When referring to LibriVox volunteers in this article, I employ the usernames each uses within the LibriVox forums, following exactly the capitalization and other formatting chosen by each user. It is common for volunteers to use an alias on the forums and yet use their real names in their recordings, though some use aliases for both and some use real names (or close variations of real names) for both. I have added parenthetical references to individuals' "real" names when known, if they are significantly different from volunteers' forum names. In my reference list, forum members' last names are cited when known and forum names are cited otherwise.
- [2] This data current as of February 1, 2019. Out of 12,535 total LibriVox audiobooks, 1,617 (12.9%) are in languages other than English, including Hindi, Hungarian, Korean, Kurdish, Sudanese, Swedish, and even Esperanto.
- [3] These totals are taken from the LibriVox catalog as hosted at archive.org and are current as of February 10, 2019. The Internet Archive algorithms consider a "view" to be any interaction with any form of content in their collection; one view could reflect someone's streaming a brief clip of a short story, or someone downloading an entire .zip file of a 31-hours-and-44-minutes-long recording of *Ulysses*. The most recent Internet Archive statistics appear to include views from May 2008 to the present. Any engagement with these audio files by alternative means via third-party apps, torrents, YouTube streams, burned CDs, and so on is not reflected in this data.

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