

NATIONAL DIGITAL NEWSPAPER PROGRAM

{Impact Study 2004 – 2014}

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I N T R O D U C T I O N

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O B J E C T I V E

During the summer of 2014, the Division of Preservation and Access sought to evaluate the impact of the National Digital Newspaper Program (NDNP) since its beginnings in 2004. Information about the program was obtained through interviews of project directors, performance reports from the awardees, and a survey of NDNP participants developed by the National Endowment for the Humanities (NEH) and the Library of Congress.

B A C K G R O U N D

The National Digital Newspaper Program is a joint partnership between the Library of Congress and the NEH to create a searchable database of culturally significant newspapers from every U.S. state and territory published between 1836 and 1922 (since titles beginning in 1923 are under copyright and therefore cannot be easily digitized). Formally launched in 2004, NDNP grew out of the NEH's United States Newspaper Program, which sponsored the preservation microfilming and description of millions of pages of historic newspapers in every state.¹ NDNP awards enable each state partner to digitize approximately 100,000 pages of historically significant newspapers over a two-year period. States can also apply for supplemental funding, and a number have already completed the digitization of more than 300,000 pages. At present, approximately 8 million pages of historic newspapers from 32 states and the District of Columbia have been digitized. They have been incorporated into an online database maintained by the Library of Congress and are freely accessible and text searchable at the *Chronicling America* website (chroniclingamerica.loc.gov).

The popularity of *Chronicling America* has grown steadily. According to the Library of Congress, there have been 39,103,598 page views of and 2,678,290 unique visitors to the website². References to *Chronicling America* have also appeared in several mainstream publications. *Slate* ran a blog post titled

¹ "About the Program," *Library of Congress*, last modified June 14, 2013, <http://www.loc.gov/ndnp/about.html>.

² Thomas, Deborah, "Key Metrics Report: Chronicling America (Newspapers)," *Library of Congress*, Mon. 1 Jul. 2013 - Mon. 30 Jun. 2014.

“Life Advice for Young Men That Went Viral in the 1850s³,” and *The Atlantic* drew on content from *Chronicling America* in “Scintillations: the Facebook of 1883,” an article about historical examples of self-referencing⁴. Furthermore, Steve Mihm, associate professor of history at the University of Georgia, wrote an op-ed called “The Biographers’ Best Friend” in *The New York Times* in which he praised newspaper digitization initiatives such as *Chronicling America* (the only free resource on his list). “With a few keystrokes,” Mihm wrote, “the aspiring biographer can resurrect the dead with far greater ease and speed than an army of research assistants.”⁵ And it’s not just biographers--genealogists, historians, and other researchers are using these newspapers to publish manifold works. Searching *Chronicling America* yields over 1,300 citations in Google Books and over 400 in Google Scholar, and we believe these are even conservative figures, considering that authors often cite the newspapers themselves without referring to the database through which they find their sources. A glance at the Google Books that have made use of *Chronicling America* reveals titles such as Matthew L. and April Leigh Helm’s *Genealogy Online for Dummies* (Hoboken, NJ: John Wiley and Sons, 2011); Michele Lockhart and Kathleen Mollick’s *Political Women: Language and Leadership* (Lanham, MD: Lexington Books, 2013); and Jonathan Rees’s *Refrigeration Nation: A History of Ice, Appliances, and Enterprise in America* (Baltimore: Johns Hopkins University Press, 2013). As the database and the public’s awareness of it grow, it is exciting to consider what other new works will be produced.

The impact of *Chronicling America* has also been apparent in a variety of digital projects. Doctoral candidate Adrienne Phelps-Coco at the University of Illinois at Chicago and Wheaton College librarian Pete Coco developed *Each Moment a Mountain*, a website that hosts public submissions of creations inspired by historical archives⁶. The website currently features work inspired by *The Day Book*, a Chicago periodical that is available in *Chronicling America*. An NDNP awardee, the University of North Texas, has partnered with Stanford University to develop a series of digital humanities tools that combine text-mapping with geo-visualization to reveal patterns in large swaths of digital data. Through the “Mapping Languages” tool, one can examine the evolution of language patterns in Texas based on more than 230,000 pages of state newspapers digitized for *Chronicling America*. Users can limit search results by city, year, or even time period⁷. Finally, a research team from Virginia Tech and the University of Toronto is

³ Onion, Rebecca. “Slate, December 4, 2013.

http://www.slate.com/blogs/the_vault/2013/12/04/advice_for_men_list_of_maxims_that_went_viral_in_the_nineteenth_century.html.

⁴ Garber, Megan. *The Atlantic*, July 23, 2014, <http://www.theatlantic.com/technology/archive/2013/07/scintillations-the-facebook-of-1883/278042/>.

⁵ *The New York Times*, September 10, 2011, http://www.nytimes.com/2011/09/11/opinion/sunday/the-biographers-new-best-friend.html?pagewanted=all&_r=1&.

⁶ Phelps-Coco, Adrienne and Pete Coco, *Each Moment a Mountain*, accessed on July 14, 2014, <http://www.eachmomentamountain.org/>.

⁷ Torget, Andrew J., Rada Mihalcea, Jon Christensen, and Geoff McGhee. MAPPING TEXTS: COMBINING TEXT-MINING AND GEO-VISUALIZATION TO UNLOCK THE RESEARCH POTENTIAL OF HISTORICAL NEWSPAPERS, accessed July 14, 2014, http://mappingtexts.org/whitepaper/MappingTexts_WhitePaper.pdf.

studying newspapers published during the 1918 influenza pandemic to track their influence on public perception of the disease, as well as using this research as a test project for experimentation with big-data mining⁸.

These examples illustrate a few of the many ways in which *Chronicling America* supports humanities scholarship, but the impact of NDNP on the 38 state and territorial partners has been less well documented. Some of the questions we hoped to answer through this investigation include: How did financial and technical support provided by the Endowment and the Library of Congress affect the development of infrastructure for digitization projects? How has NDNP affected the partners' ability to serve their communities? And to what extent did NDNP serve as a catalyst for new products, initiatives, or programs related to the digitization of newspapers and other humanities materials?

M E T H O D O L O G Y

In an effort to answer these questions and to gauge the broad impact of NDNP, we employed several approaches to gather data, both qualitative and quantitative, on the accomplishments of the program. First, we examined partners' performance reports to the NEH for evidence of unique programs or products. Second, surveys were sent out to all 37 project directors by the Library of Congress, of whom 28 (or 75%) responded. Finally, we conducted in-depth telephone interviews of the project directors in the following states: Hawaii, Kentucky, Maryland, Minnesota, Oregon, Texas, Utah, Vermont, and Virginia. We asked the directors about their institution's experience as an NDNP partner and their sense of the program's impact in their state, region, and in the nation as a whole. The results of our investigations appear below.

D I G I T A L E X P E R T I S E

Before participating in NDNP, the state partners had varying levels of expertise with digital programs in general and with digitizing newspapers in particular. Survey recipients were asked to comment on the extent to which their involvement in NDNP helped enhanced the skills and experience of their staff or encouraged other digital initiatives at their institution. Without exception, respondents noted an improvement in their staff's ability to manage large-scale digitization projects, as well as greater knowledge of newspaper resources in the state. More than half of the project directors characterized

⁸ Ewing, E. Thomas, Bernice L. Hausman, et al. "An Epidemiology of Information," *Virginia Tech*, November 12, 2012, <http://www.flu1918.lib.vt.edu/>.

these improvements as either “significant” (36%) or “unprecedented” (18%). Nearly one-third (32%) of the survey respondents maintained that before involvement in NDNP their institutions had little knowledge about how to convert microfilm to digital files. Because of their participation in the program, 75% felt they had become “experts” in this process. The vast majority (93%) of the project directors reported also that NDNP helped to generate other digital initiatives in their states, with 21% characterizing the increase in digitization projects as “unprecedented.”⁹

We were pleased to see the beneficial effects of the NDNP evident among practically all the state partners regardless of the length of their participation in the program.

“ T H E B O Y S C O U T ’ S G U I D E B O O K ”

We were curious to know the specific ways in which NDNP contributes to greater knowledge and experience on the part of the project staff. In this respect, the telephone interviews helped to supplement the information provided in the written performance reports. Seven out of the nine project directors we interviewed highlighted the role of NDNP’s digital specifications on shaping digitization programs.

NDNP partners use technical specifications for the digitization of newspapers developed by the Library of Congress. These technical specs cover all phases of the process including image formatting, optical character recognition (OCR), metadata creation, and digital object validation¹⁰. Errol Somay, Director of the Virginia Newspaper Project at the Library of Virginia, compared the specs to a “boy scout’s guidebook,” because they established a set of standards for a national program and created a working infrastructure¹¹. Mark Phillips, assistant dean for digital libraries at the University of North Texas, credits the specs with allowing their team to “build systems around a specific format,” aiding the development of the university’s Portal to Texas History¹², an online repository that now holds nearly 2.5 million digital pages¹³. Another example of a state partner adapting the technical guidebook for broader purposes is the University of Oregon, which applied the “BagIt” specification (a file packaging format for content transfer¹⁴) to all 65 of Oregon Digital’s online collections.¹⁵ Also, the University of North

⁹ Mears, Jaime. “National Digital Newspaper Program Impact Survey.” Survey. *Survey Monkey*. Library of Congress, July 25, 2014.

¹⁰ “The National Digital Newspaper Program (NDNP) Technical Guidelines for Applicants,” *Library of Congress*, August 19, 2011, http://www.loc.gov/ndnp/guidelines/archive/NDNP_201113TechNotes.pdf

¹¹ Erroll Somay, interviewed by Jaime R. Mears, July 10, 2014.

¹² Mark Phillips, interviewed by Jaime R. Mears, July 18, 2014.

¹³ “The Portal to Texas History,” *The University of North Texas Libraries*, accessed on August 1, 2014, <http://texashistory.unt.edu/>.

¹⁴ “BagIt File Packaging Format,” *California Digital Library*, February 10, 2012, <https://confluence.ucop.edu/display/Curation/BagIt>.

¹⁵ “Oregon Digital: Unique Digital Collections from OSU and UO Libraries,” *University of Oregon Libraries*, last revised August 21, 2013, <http://oregondigital.org/digcol/a2z.php>.

Texas is using NDNP folder structures and metadata elements to digitize an additional 325,000 pages of Texas newspapers in partnership with Abilene Library Consortium¹⁶. Each NDNP state partner is required to mail hard drives containing files of the digitized newspapers to the Library of Congress, a workflow procedure that was copied by the University of North Texas, the University of Arizona, and the University of Texas at El Paso when it became necessary to divide among them the digitization of an important Spanish-language newspaper published in El Paso¹⁷.

The NDNP's technical specifications also inform current discussions and projects among awardees. Mary Molinaro, Director of the Research Data Center at the University of Kentucky, informed us that she was preparing to meet with another NDNP project director, Oregon's Karen Estlund, to discuss born-digital content. "How to capture and preserve current digital newspaper content is an issue on everyone's mind," Molinaro said. "These are the current problems that past awardees are looking to solve."¹⁸ Estlund, who heads the Digital Scholarship Center at the University of Oregon, stated that her library is also exploring the application of NDNP technical specs to the preservation of born digital materials¹⁹.

The University of Kentucky is one of several state partners that provide outreach and training to other institutions interested in the digitization of historic newspapers. Several years ago, the university designed a lecture and online tutorial series called "meta | morphosis" on applying NDNP specifications to other microfilm-to-digital projects. The self-paced lessons cover general issues such as solving batch problems and working with vendors, as well as providing training specific to the program with topics such as "What to expect from NDNP."²⁰ The University of Kentucky chose to conduct its entire NDNP digitization process in-house instead of working with an outside vendor. Project director Mary Molinaro credits NDNP's specifications and workflows for providing the university a way to move away from "boutique" style digitization and expand its digitization and preservation efforts in order to digitize large amounts of material²¹. Through "meta | morphosis," the University of Kentucky has used its experience with NDNP to assist other organizations--including a number of other state partners--looking to improve or start their own digitization programs.

¹⁶ Phillips, interview.

¹⁷ Phillips, interview.

¹⁸ Molinaro, Mary, interviewed by Jaime R. Mears, July 8, 2014.

¹⁹ Estlund, Karen, interviewed by Jaime R. Mears, July 22, 2014.

²⁰ "meta | morphosis," *University of Kentucky Libraries*, accessed on July 8, 2014, <http://www.uky.edu/Libraries/ndnp/metamorphosis/index.html>.

²¹ Molinaro, interview.

Most of the awardees have been eager to share their experiences with the program and have tried different approaches to educate others about NDNP's technical requirements and workflows. They include blog posts, presentations at state library associations, poster sessions, online resources, workshops, and podcasts. A particularly ambitious example of community outreach comes from the University of Vermont, which upon entering NDNP in 2010 was the largest digital project in the state of Vermont. The university joined with Ilsley Public Library in Middlebury, Vermont, to train volunteers on applying NDNP specs to microfilm inspection and metadata collation. Armed with these new skills, the volunteers at the library were able to contribute 480 pages of the *Middlebury Register* to *Chronicling America*. The project staff at the Montana Historical Society, another NDNP awardee, posted on its website an appendix that describes the digitization and uploading process for organizations wanting to contribute to the Montana Memory Project, a digital collection of materials related to Montana's history and culture²². Technical standards become more robust as more organizations adopt them, so it is encouraging to see that NDNP partners have invested so much effort in helping others.

C O L L A B O R A T I O N F O R C O N T E N T

NDNP's most unique characteristic is the collaborative platform on which it operates. Rather than competing against each other for grant monies, institutions within a given state are encouraged to apply as partners, an opportunity made possible by the technical specifications discussed previously. Encouraging interoperability and providing the tools to make it possible have produced many instances of collaboration that have widened each institution's coverage, expanded the content of their holdings, and provided a support network. Eighty percent of the NDNP project directors who completed the survey reported that they had collaborated with one or more organizations in their state; moreover, 65% had formed partnerships across state lines. According to a 2014 report from the Minnesota Historical Society, which is the NDNP awardee in its state, it has partnered with several adjoining states to support the digitization of newspapers in the region and said, "The benefits for partnerships between states start simply with more newspapers being digitized, increasing the breadth and depth of digitally available titles." The report went on to say: "This is true for Minnesota, [and its partners] North Dakota, and Iowa but also for our entire region as 'history doesn't stop at the border.'" This enthusiasm for collaboration so evident in Minnesota is reflected in many of the survey responses; 84% of the states

²² "Montana Memory Project," *Montana State Library* accessed on August 16, 2014, <http://libraries.montanastatelibrary.org/statewide-projects/montana-memory-project/>.

currently involved in regional partnerships believed these collaborations would continue beyond NDNP²³.

There are other examples of NDNP awardees helping neighboring states into the program, providing guidance and training to their staffs and even sharing some of the digitization work. In scenarios like these, the newer partner institutions are responsible for putting advisory boards together and for content selection, while more experienced partners like Minnesota, North Texas, and Virginia act as “production centers,” doing the processing and skilled metadata work. In 2009, The University of North Texas became a trainer and production center for the Oklahoma Historical Society in a move that was so successful it was repeated with the University of New Mexico the following year²⁴. Oklahoma later approached UNT Libraries to create the Gateway to Oklahoma History, an online repository that currently holds nearly one million pages of historical newspaper content²⁵. In 2011, the Library of Virginia became a production center for West Virginia University, and, as noted above, the Minnesota Historical Society is currently managing digitization for the State Historical Societies of Iowa and North Dakota as a technical contractor. There is also the possibility of a similar partnership forming in New England, as early talks took place between awardee the University of Vermont and other interested parties²⁶.

Small libraries and historical societies have approached NDNP partners in their states, requesting that titles representing diverse regional areas and cultures not included in *Chronicling America* be digitized as well. For example, the Library of Virginia has become a kind of “clearinghouse” for historic newspapers in Virginia²⁷, and the Minnesota Historical Society serves as a “regional servicer” for groups such as Southeastern Libraries Cooperating (SELCO)²⁸, representing 11 counties in the state²⁹. It is clear from their performance reports that the partners have become the principal authorities on newspaper digitization and production hubs in their states. The University of North Texas related an especially poignant account of their dealings with a small-town newspaper:

A publisher in Paducah, Texas, called the Digital Newspaper office [at the university] one day and said she would be going out of business in three weeks and needed someone to take (and archive and preserve) all of her physical newspapers. She was crying. She said that when she had searched online for digitization and digital newspaper preservation in Texas, UNT’s Texas Digital Newspaper Program and *Chronicling America* were at the top of the search results. She gave her entire run to

²³ Mears, Jaime. “National Digital Newspaper Program Impact Survey.”

²⁴ Hartman, Cathy, interviewed by Jaime R. Mears, July 18, 2014.

²⁵ “Gateway to Oklahoma History,” *Oklahoma Historical Society*, accessed on August 16, 2014.

²⁶ Marshall, Jeff, interviewed by Jaime R. Mears, July 31, 2014.

²⁷ Somay, interview.

²⁸ Jones, Jennifer, interviewed by Jaime R. Mears, July 24, 2014.

²⁹ “About Us,” *South Eastern Libraries Cooperating (SELCO)*, accessed on August 16, 2014, <http://www.selco.info/about-us/>.

UNT, and her librarian is preparing to apply for a digitization grant from a private Texas foundation. Without NDNP and everything we learned from it, we would not be able to serve people like this publisher, whose town's identity over 103 years was stored at her newspaper office.³⁰

Anecdotes such as this one exemplify the program's grassroots impact at a precarious time for many smaller newspapers.

The demand from smaller libraries and historical societies and the effort of these institutions to expand their collections have driven NDNP partners to continue to digitize newspapers beyond the NDNP requirements. In 2007, the University of Florida reported digitizing 310 newspaper titles beyond the purview of its NDNP award. The University of California, Riverside, was able to use NDNP support to leverage funding from the Library Services and Technology Act [LSTA] to digitize over 500,000 pages as of 2011. The University of North Texas is currently uploading 100,000 pages of new content a month, more than 2 million pages as of 2014³¹.

Using the prestige of an NDNP award to leverage funds from other grant programs and from private donors was a tactic noted several times in interviews and the final project reports. "We want to thank NEH and the LC for putting up the funds to get the ball rolling," said staff at the University of North Texas. "You have to get something online before others will invest."³² Karen Estlund at the University of Oregon credited the program's ability to draw more donors as well. "It was the existence and possibility that allowed me to get the other grants. We used NDNP as leverage for the [Oregon] Heritage Commission and LSTA granting program, as well as funding from local organizations and private donors."³³

Partners also are using their existing corpus of digitized newspapers as the basis for forming new partnerships with the private sector. For example, both Kentucky and Texas partnered with Newz Group (a media-technology and public-relations company) to "grab" copies of their states' newspapers published since 2010³⁴. For now, these materials are being used for preservation purposes, but the goal is to make them publicly accessible in the future. Other former NDNP partners such as the University of Oregon and the University of Utah have entered a content licensing agreement with the noted genealogical resource Ancestry.com³⁵. Based on interviews and the most recent grant reports, an

³⁰ Kramer, Ana, email message to author, July 29, 2014.

³¹ Hartman, interview; email conversation between Hartman and Leah Weinryb Grohsgal, September 11, 2014.

³² Hartman, interview.

³³ Estlund, interview.

³⁴ Hartman, interview.

³⁵ Estlund, interview.

additional 2.5 million pages of digital content has been made available so far by NDNP partners that can be attributed to the program's influence.

Within these numbers lies a wealth of significant titles that can be plumbed for humanities research. For example, the University of Oregon digitized three Native American newspapers: the *Klamath Tribune* (1956-1961), which documented the termination of the Klamath tribes; the *Weekly Chemawa American* (1897-), a historical paper from the Chemawa Indian School; and *Smoke Signals*³⁶ (1978-), the current newspaper of the Confederated Tribes of the Grand Ronde³⁷. Benjamin T. Gish, son of late publisher Thomas E. Gish, approached The University of Kentucky to digitize his father's paper *The Mountain Eagle* (1956-), of Whitesburg, Kentucky, which richly documents the history of an Appalachian mining region³⁸. The Historical Society of Pennsylvania, a contributor to Pennsylvania's NDNP efforts, is working with Readex, which publishes a number of digital collections, to digitize ethnic American newspapers from the collection at the Balch Institute of Ethnic Studies, which includes more than 130 titles in 10 languages spanning two centuries and 25 states³⁹. To date, the historical society had digitized 9,720 issues from 12 titles in Pennsylvania. The University of Hawaii, an NDNP partner, has made a preliminary agreement with the Filipino Digital Archives and History Center of Hawaii to process, make searchable through OCR, and host their digitized newspapers also.

It is worth mentioning several unique collaborations that have sprung up through this national network. The University of Maryland received its first NDNP award in 2012 and was able to use some of its grant funding to host a "Wikipedian in Residence" for the summer. The resident is evaluating *Chronicling America's* presence on Wikipedia, as well as researching whether other NDNP awardees are interested in using Wikipedia as a form of outreach for their newspaper content. The University of Maryland recently hosted a Wikipedia edit-a-thon to encourage the use of *Chronicling America* as a resource for Wikipedians when editing articles and adding citations⁴⁰. Participants in the edit-a-thon learned about the newspapers in *Chronicling America* and received an introduction to editing Wikipedia. They then used *Chronicling America* sources to practice contributing to Wikipedia pages and projects, as well as creating or expanding articles pertaining to newspapers digitized by the Maryland NDNP project. At the University of Utah, the Digital Ventures unit of J. Willard Marriott Library is partnering with the LDS Church's Family History Library, currently the largest genealogy library in the world⁴¹. The University of Utah is

³⁶ Estlund, interview.

³⁷ "News," *The Confederated Tribes of Grand Ronde*, accessed August 16, 2014, <http://www.grandronde.org/news/>

³⁸ Molinaro, interview.

³⁹ "Readex to Launch Ethnic American Newspapers from the Balch Collection, 1799-1971," *Readex*, January 5, 2011, <http://www.readex.com/news/readex-launch-ethnic-american-newspapers-balch-collection-1799-1971>.

⁴⁰ Caringola, Liz, interviewed by Jaime R. Mears, July 18, 2014. https://en.wikipedia.org/wiki/Wikipedia:Meetup/DC/Chronicling_America

⁴¹ "Family History Library," *Wikipedia*, last modified August 12, 2014.

partnering with Family Search to utilize their LDS volunteers to overlay the obituaries in their collection with metadata to enhance search functionality; the obituaries will be cross-linked from Utah's repository so that a wider audience will have access to this immense collection⁴². Another collaboration is taking place at the international level. The Minnesota Historical Society is working with the Library of Sweden to provide access to Swedish newspapers on the MNHS web site. With a grant from the Rijksbanken Jubileumsfond, the Library of Sweden digitized 25 Swedish American newspaper titles. Funded by the Marianne and Marcus Wallenberg Foundation of Sweden, MNHS is now developing a special website to host these newspapers as well as tools to support academic research⁴³.

P R O D U C T S , P R O G R A M S , A N D E V E N T S

The amount of newspaper content made available, whether directly through *Chronicling America* or indirectly through the applied skills and knowledge via spin-off digitization efforts, represents only one set of outcomes for NDNP. Sixty-two percent of the state partners surveyed reported that they had created products relating to their NDNP content. According to their performance reports, their projects had resulted in at least one of the following: blogs, articles, bookmarks, posters, library guides, exhibits, videos, tutorials, digital tools, and lesson plans. Furthermore, almost half (48%) of the awardees surveyed confirmed they have used products created by fellow NDNP partners to aid their own outreach efforts⁴⁴. Many states have launched dedicated programs and special events to promote NDNP and highlight its content. Among them are presentations or workshops at state historical societies, genealogy groups, schools, state fairs and library meetings. Some specific examples of products or activities inspired by NDNP:

- Jennifer Beamer of the University of Hawaii used her background as a former Apple “MobileSpecialist” to develop an **iBook** about Hawaiian history that should be available to freely download from the iTunes Store presently. The book uses pages digitized directly by NDNP, or material in Hawaii's repository that was digitized because of the infrastructure or workflows built because of involvement in NDNP. Jennifer sees the iBook as an appropriate product for this digital program, and loves that the book can grow and be updated along with their digital collections.⁴⁵
- The University of North Texas created the **educational website** Resources4Educators that provides lesson plans with classroom activities and materials made from NDNP content. The most popular series of lesson plans--Newspaper Narratives--receives 3,000 visitors a month.⁴⁶

⁴² Herbert, John, interviewed by Jaime R. Mears, July 10, 2014.

⁴³ Jones, interview.

⁴⁴ Mears, Jaime. “National Digital Newspaper Program Impact Survey.”

⁴⁵ Beamer, Jennifer, interviewed by Jaime R. Mears, July 15, 2014.

⁴⁶ Hartman, interview.

- The Arizona Department of Libraries, Archives and Public Records partnered with the Arizona Capitol Museum to create a permanent, interactive **museum exhibit** that uses newspapers to teach patrons about Arizona’s territorial governors.
- The Ohio Historical Society Developed a **podcast** featuring a series of *Search Strategy Videos* available on YouTube for using the *Chronicling America* site.
- Project director John Herbert of the University of Utah commissioned iArchives, their NDNP vendor, to develop a new **digital tool**, a schema for article-level segmentation.⁴⁷
- Chosen as winner of the American Association of State and Local History’s 2013 Leadership in History Award of Merit, the Civil War 150 Project is billed as an “**interactive museum on wheels.**” Archivists travel from county to county to scan manuscript material related to the Civil War era. These digital items are available through websites at the Library of Virginia and the Virginia Sesquicentennial of the American Civil War Commission.⁴⁸ The project’s creators were able to execute it because of the digitization knowledge they gained from participating in NDNP.
- Through the Digital Scholarship Center at the University of Oregon, *Chronicling America* is used to teach text mining in a graduate-level credit **course**: Introduction to Digital Scholarship.
- In 2013, the State Historical Society of Iowa hosted three **educational workshops** for over 250 middle and high school students and teachers on using the *Chronicling America* website and digital newspapers for research.
- On August 1, 2014, the University of Hawaii hosted its first **symposium on digital research** to discuss digitization and collaborative partnerships. 60 participants attended including organizations such as the Hula Preservation Society and the Ulukau Hawaiian Electronic Library.⁴⁹

W I D E R I M P A C T

Project Directors were asked in the survey to assess the effects of NDNP within their state and region. Specifically, project directors were asked to rank the program’s impact on their state’s public school system, institutions of higher education, libraries, and other cultural institutions, using a scale of 0 (no impact) to 4 (large impact). Their responses reveal that libraries appear to have benefited the most from NDNP, with 77% of the project directors giving it a rating of 3 or 4. Genealogical and historical societies were also cited as being strongly affected by the program. One respondent commented that their state’s transportation system had “relied heavily” on *Chronicling America* to research land history before

⁴⁷ Herbert, interview.

⁴⁸ *Civil War 150 Legacy Project*, accessed August 16, 2014, <http://www.virginiacivilwar.org/legacy/>

⁴⁹ “MLIS Graduates and Students Play Large Role in Inaugural Hawai’i Digital Resources Symposium August 2014,” *University of Hawaii at Manoa Library and Information Science Program*, accessed on August 18, 2014, <http://www.hawaii.edu/lis/2014/08/06/mlis-graduates-and-students-play-large-role-in-inaugural-hawaii-digital-resources-symposium-august-2014/>.

beginning road work or construction projects, proving that there may be unexpected areas of impact beyond the humanities⁵⁰.

Although over 90% of project directors felt that NDNP had had some effect on the intellectual life of their state, only 15% had conducted their own NDNP-related impact surveys. Forty-two percent were unable to rate the program's impact on the public school system and higher education.⁵¹ There were a few exceptions. In 2011, the University of North Texas surveyed users of the Portal to Texas History website; it found that public libraries, academic libraries, museums, and archives viewed these resources as valuable for cultural and economic reasons⁵². In 2012, another project director canvassed reference librarians across the state; 50 librarians responded to the survey, indicating that they had used *Chronicling America* anywhere from once a week to once a month to answer questions about history and genealogy⁵³. Clearly, more research is needed on the impact of NDNP at the state level, particularly outside of libraries.

A W A T E R S H E D M O M E N T F O R N E W S P A P E R S

It is easy to forget that not long ago working with historic newspapers required hours of flipping through yellowed and crumbling pages or reading microfilm. The jump NDNP made possible from that reality to instant access to searchable papers from the comfort of one's home has revitalized the newspaper's value for researchers. "[NDNP] opened up newspapers as a meaningful resource," said Jeff Marshall, project director at the University of Vermont. "As a historian, you always question the credibility of your sources. Now you're at least able to examine the entire run; before it was hit or miss. It's changing the way that people look at these digital databases."⁵⁴ Karen Estlund of the University of Oregon had a similar view: "Just having the program, faculty are using newspapers more in classes... Newspapers are somehow born again. I think the fact that newspapers have been rediscovered [is a big impact of NDNP]." As an example, Estlund pointed to her own veteran reference librarians, many of whom, she said, had tended to shy away from new technologies. But once Oregon's digital newspaper collection became established, the librarians demonstrated greater interest in learning application programming interfaces (APIs), so that they could manipulate the content more aggressively for patrons. Estlund sees

⁵⁰ Mears, Jaime. "National Digital Newspaper Program Impact Survey."

⁵¹ Mears, Jaime. "National Digital Newspaper Program Impact Survey." Survey. *Survey Monkey*. Library of Congress, July 25, 2014.

⁵² Murray, Kathleen and Dreanna Belden. "Measuring the Impact of Preserving Digital Assets," *UNT Digital Library*, accessed August 16, 2014, <http://digital.library.unt.edu/ark:/67531/metadc93306/m1/1/>.

⁵³ Mears, Jaime. "National Digital Newspaper Program Impact Survey."

⁵⁴ Marshall, interview.

the digitization of newspapers--a well-known and time-tested record of historical change--as an empowering medium, capable of bridging the divide between old and new methods of research⁵⁵.

Having newspaper content available, searchable, and comparable may also be changing the way that we look at the history of our country. As the *Chronicling America* website shows, newspapers published in French, Spanish, Italian, and German are now available online, illuminating the experiences of minority populations that have been less well studied. As more and more newspapers become available on *Chronicling America* through the efforts of the state partners, we can only guess what new discoveries will be unearthed.

A D E M O C R A T I C M O D E L

NDNP is the first federally funded effort to make digitized newspapers freely accessible to all. Not only are the more than 8 million pages of historic newspapers on the *Chronicling America* website accessible to the public at zero cost, but many of the state partners have continued to produce and host free content in their own repositories and are now working to digitize newspapers beyond the cutoff of 1922. “This information is available in an ethical way,” said project director Cathy Hartman at the University of North Texas: “We are creating preservation infrastructures that are lasting, and these standards can be passed on.”⁵⁶ Taking the risk to produce a body of freely accessible resources and investing in their longevity makes NDNP a model of what a nationally coordinated humanities effort can achieve.

Although NDNP focuses on U.S. newspapers, the program’s impact extends beyond this country, since the *Chronicling America* website is available to anyone with internet access. “[NDNP’s] greatest achievement has been making these pieces of history available to the entire world,” said Jennifer Beamer, Project Manager at the University of Hawaii. As a member of the project’s technical staff, Beamer looked at usage rates of the university’s HDNP pages and discovered that a large portion of the persons accessing the newspapers accessed the newspapers from Japan. This was not surprising, given Hawaii’s history and Japanese connections, but it indicates that *Chronicling America’s* use extends beyond our national borders.⁵⁷ Similarly, when the staff from the University of North Texas presented at a conference of the International Federation of Library Associations in Singapore, the head of digital services at a local university, an enthusiastic supporter of *Chronicling America*, bemoaned the fact that his

⁵⁵ Estlund, interview.

⁵⁶ Hartman, interview.

⁵⁷ Beamer, interview.

institution lacked the necessary funding to digitize his country's newspapers⁵⁸. Hopefully we will see more countries take up this effort in the not so distant future.

C O N C L U S I O N

In the past ten years, the National Digital Newspaper Program has made millions of newspaper pages available in a searchable format to the world, re-framing the role of newspapers as an exceptionally rich historical resource with wide appeal to researchers and to members of the general public wanting a more intimate glimpse into our nation's past. Just as importantly, NDNP has had an unprecedented impact on its partner institutions that goes far beyond the formal requirements of the program. NDNP's technical specifications and its partnership model have empowered awardee institutions around the country to increase their own digital initiatives and have helped them emerge as leaders in the digitization field, creating new products, conducting a variety of programs, and solving contemporary digitization problems.

Going forward, the immense success of the National Digital Newspaper Program is also becoming its biggest challenge. As some partners come to the end of their funding cycles, they need to find ways to sustain their robust digital initiatives. Most have the skilled staff and workflows necessary to continue the digitization of even more historic newspapers, but many lack the financial resources to do so. Only about one-fifth (19%) of the survey respondents stated that they currently have the resources to continue their digitization work; most of the other state partners are seeking ways to maintain their earlier efforts beyond NDNP.

Though the desire to sustain this work is a testament to the program's success, obtaining ongoing support for newspaper digitization remains a serious challenge. Project directors John Herbert of the University of Utah and Brian Geiger of the University of California, Riverside, are tackling this problem head-on by coordinating a sustainability conference for interested state partners this fall. "As more and more [institutions] graduate, I can see a role for us as hosting services to other states as they roll off of NDNP," Herbert said during our interview, "I am keen to help everyone." The collaborative spirit that has characterized the program from the outset may help identify strategies by which states can work in tandem to achieve the goal of sustainability. We remain optimistic that the state partners will be able to work together now as in the past to find solutions to this new challenge.

⁵⁸ Hartman, interview.

In sum, the NEH, the Library of Congress, and our 38 state and territorial partners have reason to be extremely satisfied with the success of NDNP to date. Jennifer Jones at the Minnesota Historical Society summarized the impact of the program in this way:

NDNP let us connect to a broader, national priority for the creation of digital content. It provides us a common platform and the potential for larger aggregation. Our participation in the NDNP helped us build technical capacity in the area of newspaper digitization and digital preservation. Digital newspapers offer the added value of being able to search across content. Offering that kind of access online has helped us demonstrate to those within our organization and to stakeholders across the state the value of digital content with the authority and validity that comes from being backed by the National Endowment for the Humanities.⁵⁹

We share this sense of the importance of NDNP and look forward to expanding the network of participants in the near future to encompass all 50 states.

⁵⁹ Jones, interview.