

Modernizing the National Register of Historic Places: Towards an Open Data Framework

Research Question

How can an open data philosophy inform the way National Register nominations are published and accessed as an institutional collection?

This project seeks to understand the National Register of Historic Places as a rich body of knowledge that is a valuable research tool created by and for preservation professionals, students, and other stakeholders. My research will focus on the implications of data management in the writing, reviewing, publishing and retrieval of National Register nominations (see **Becoming Familiar with the National Register**). How can the information found in all successfully listed nominations be accessed by the public, and how can an open data approach allow for a better understanding and stewardship of the National Register?

Methodology

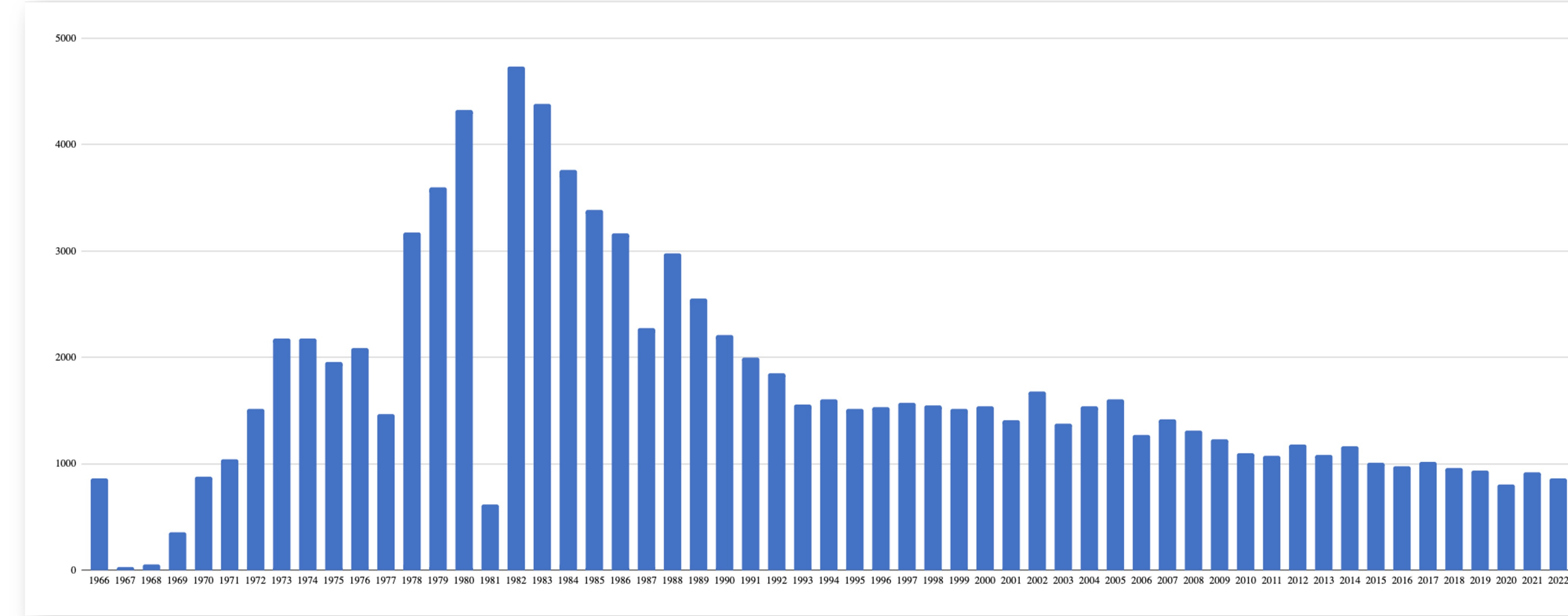
Literature about the role of technology in cultural heritage fields explores the challenges of access to data, and the ways stakeholders can engage with the data in meaningful ways (see the **Helpful Resources** handout). This research will look at the foundations and principles of Open Data (see **What is Open Data?**), and explore how it is relevant to the field of historic preservation in general, and to the National Register in particular.

I designed a qualitative survey that included open-ended questions which asked respondents to reflect on their experience with the National Register of Historic Places. Respondents were asked to share their observations, opinions and feelings about data management within the historic preservation profession. Respondents provided suggestions on the way the National Register could modernize and be a more helpful research tool.

The results of the survey provided a collection of frustrations and challenges stakeholders face when using the National Register as a research tool (see **Current Limitations**). This research will conclude with some **Recommendations** about ways the National Register should incorporate open data approaches in order to improve stakeholder experience and to allow for more better ways of accessing individual nominations, and for more innovative ways of analyzing all nominations of the National Register in its entirety.

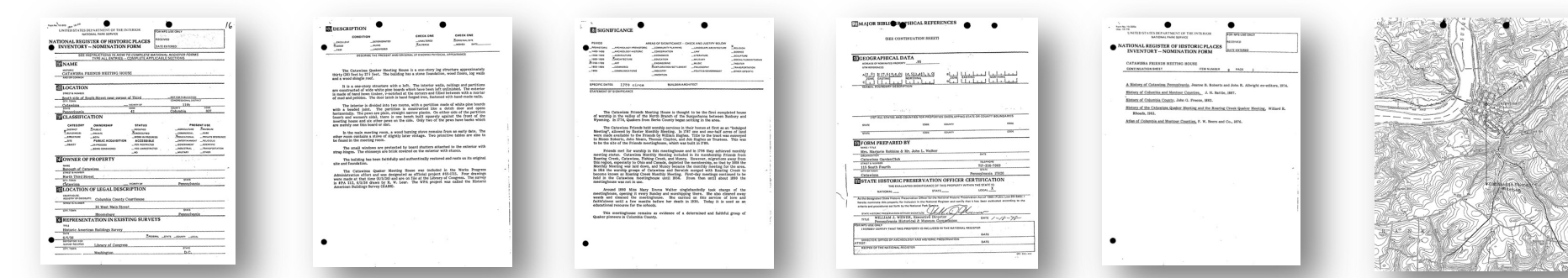
Becoming Familiar with the National Register

Since its creation in 1966 as a result of the passage of the National Historic Preservation Act, the National Register now includes roughly 95,000 listings. During the last decade, about 800-1,000 listings are added each year.



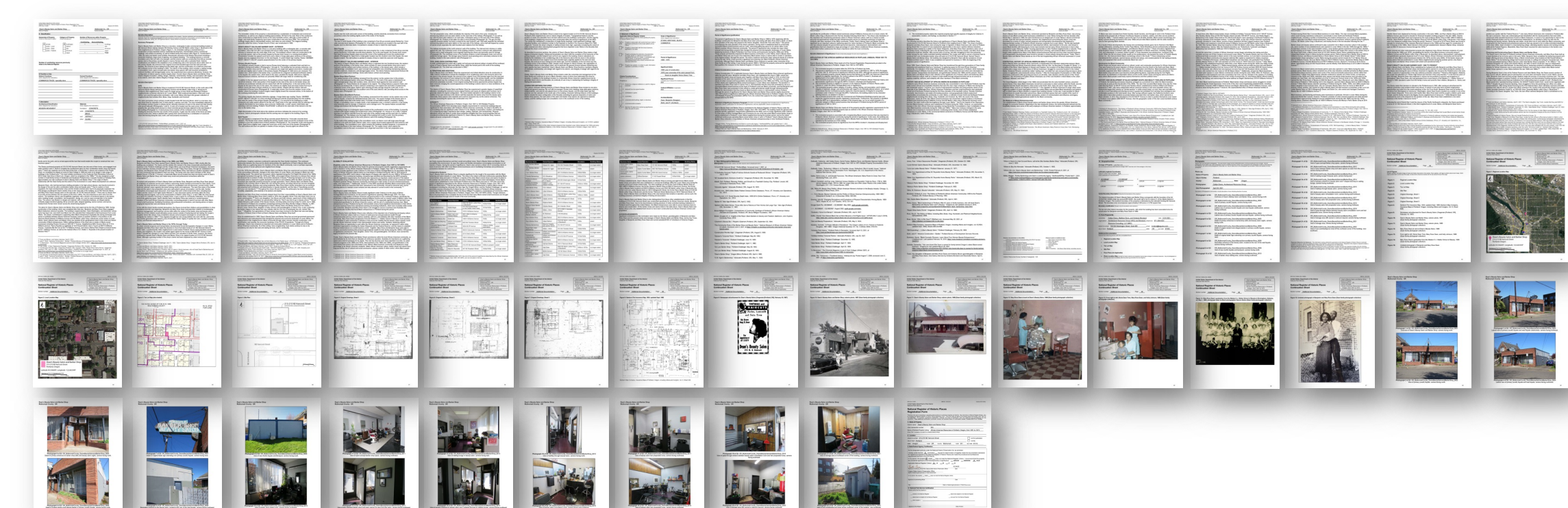
<https://www.nps.gov/subjects/nationalregister/database-research.htm>

The types, quantity and quality of information found on National Register nomination has changed as well. Two contrasting examples are shown below. In light of the calls for the National Register to be more representative of lived experiences in this country, the goal of this research is to consider to what degree the data management approach of the National Register needs to be modernized as well.



Catwissa Friends Meeting House, 1798

https://gis.penndot.gov/CRGISAttachments/SiteResource/H001233_01H.pdf



Dean's Beauty Salon and Barber Shop, 2022

https://heritagedata.prd.state.or.us/historic/index.cfm?do=nav_disp_siteSummary&resultDisplay=682796

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Many thanks to A&E Design, Historical Research Associates, Inc., and the Montana State Historic Preservation Office for sponsoring travel and conference attendance.



What is Open Data?

“The philosophy of Openness and its use in diverse areas is attracting increasing attention from users, developers, businesses, governments, educators, and researchers around the world. The technological, socio-cultural, economic, legal, institutional, and philosophical issues related to its principles, applications, benefits, and barriers for its use are growing areas of research.” [1]

Tim Berners-Lee, who is credited with inventing the World Wide Web in 1989, has continued to play a big part in the shaping of web technologies and philosophies. Berners-Lee “moved from an initial focus on openly sharing documents to believing in the need to share raw data.” [2] Open access activist Aaron Swartz described this shift as:

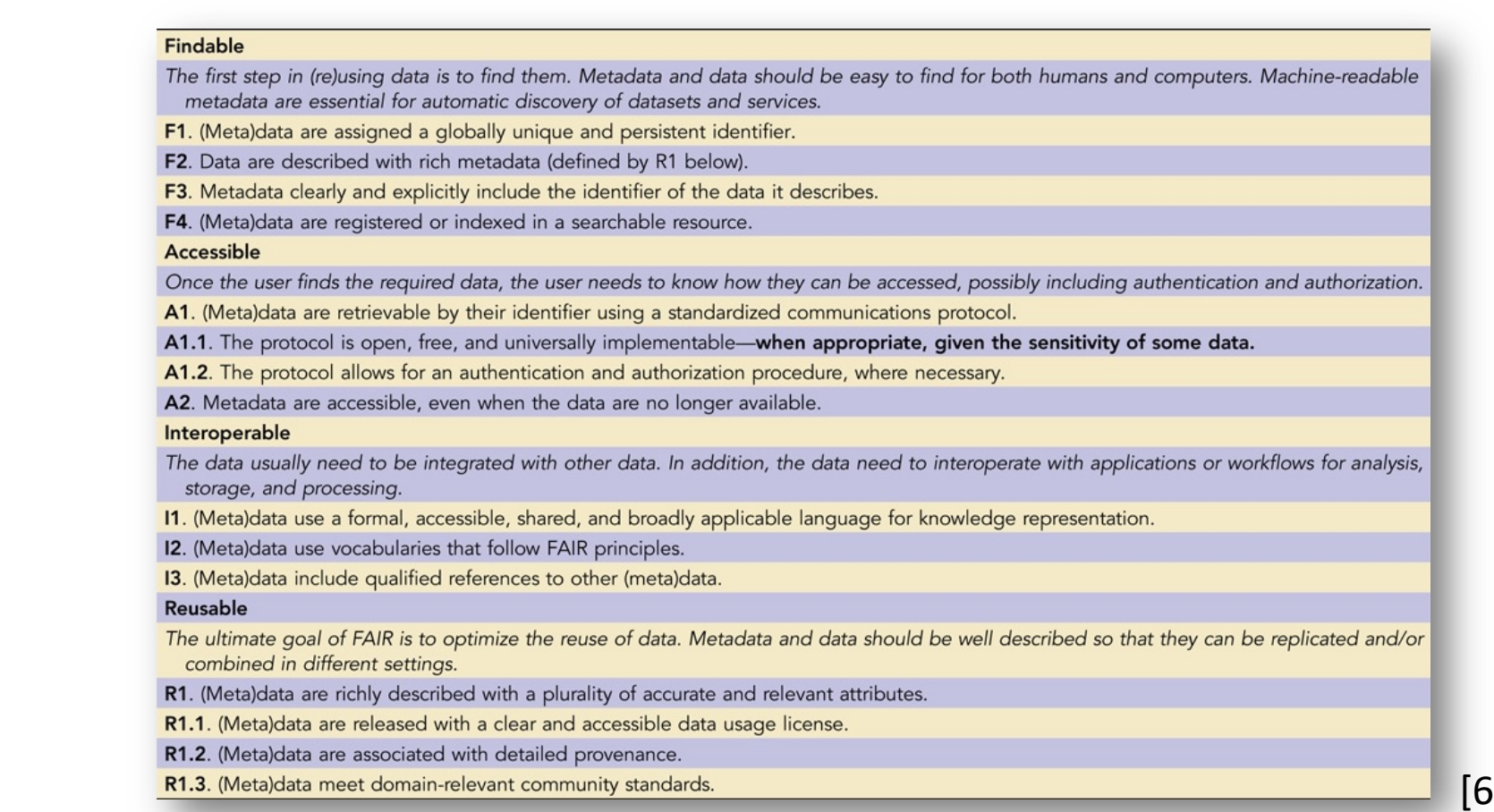
“an entirely new notion of the tapestry—a tapestry of data instead of a tapestry of documents. Documents can’t really be merged and integrated and queried; they serve mostly as isolated instances to be viewed and reviewed. But data are protean, able to shift into whatever shape best suits your needs.” [3]

Obama’s first Executive Memoranda, issued on his inauguration day, was titled *Transparency and Open Government* and sought to “establish a system of transparency, public participation, and collaboration.” [4] That same year, the data.gov website was launched as a central access point for federal and non-federal government data sets alike.

In 2013, Obama’s Executive Order *Making Open and Machine Readable the New Default for Government Information* was guided by the principle that

“Government information shall be managed as an asset throughout its life cycle to promote interoperability and openness, and, wherever possible and legally permissible, to ensure that data are released to the public in ways that make the data easy to find, accessible, and usable.” [5]

Currently, practitioners in many fields including archaeology use the FAIR framework, which stands for Findable, Accessible, Interoperable, and Reusable. The survey stage of my research asked respondents “In what ways have you found the content of National Register nominations to be Findable, Accessible, Interoperable or Reusable?”

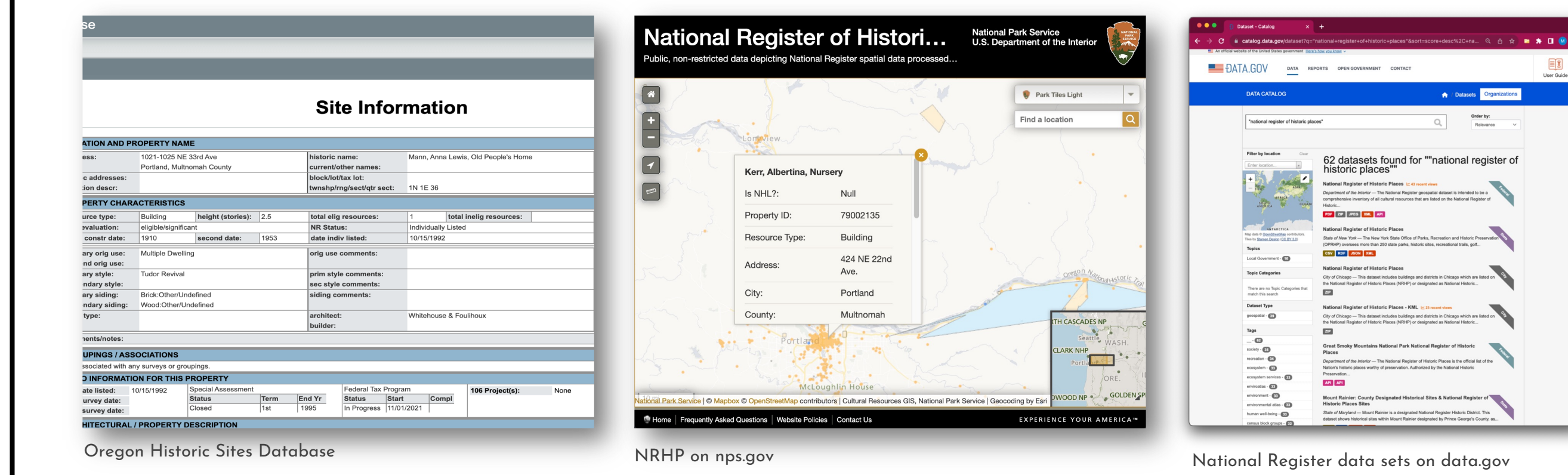


[6]

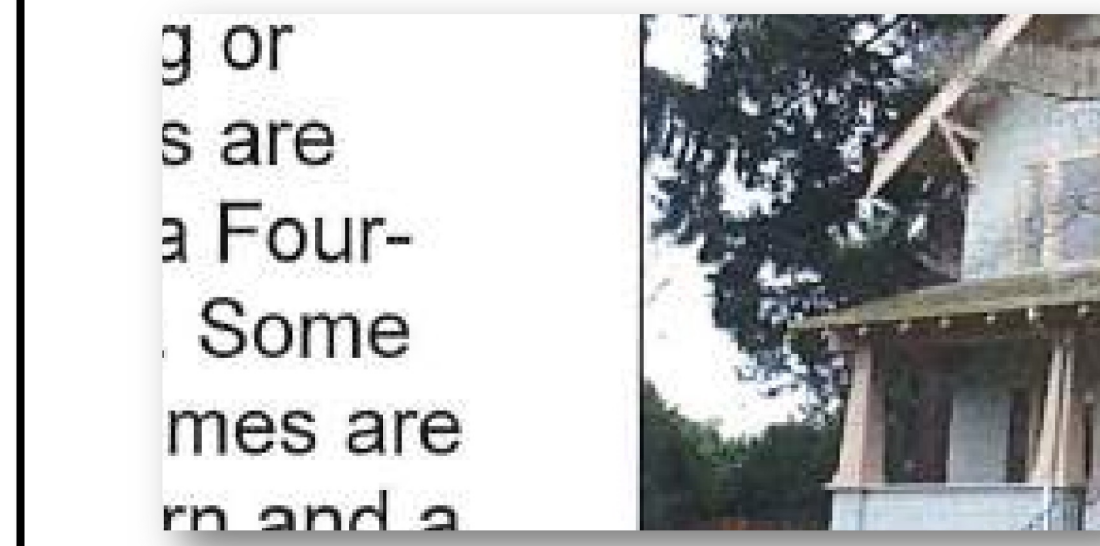
Current Limitations

A completed nomination includes metadata such as name of property, location, date of listing. The main body of text includes a historic context, narrative description, comparative analysis, charts, tables, photographs and bibliographic sources. Generally, a PDF file of a successful nomination is available for access by the public.

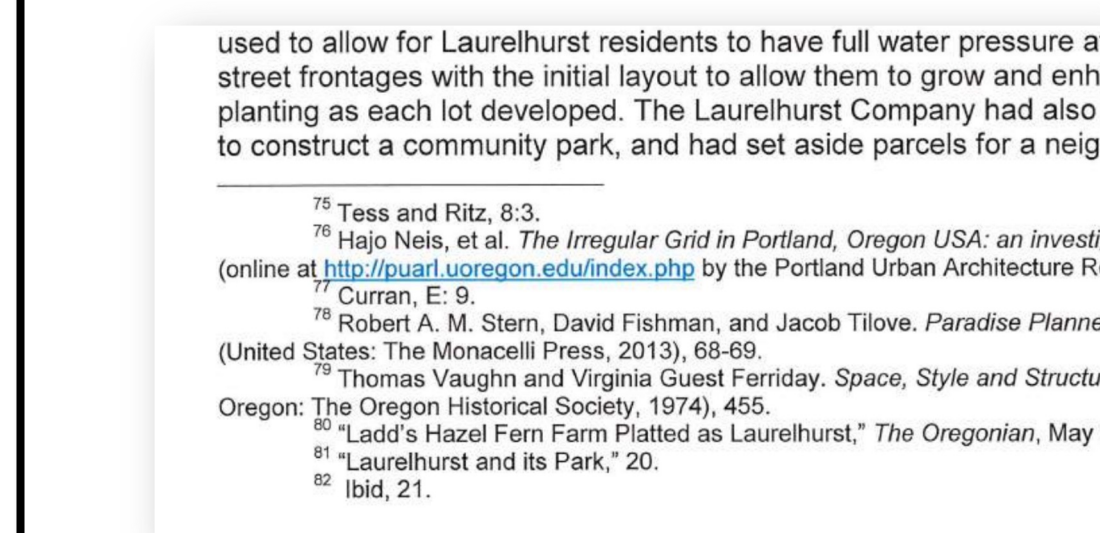
Each state’s preservation or historic inventory database offers a search interface to locate a National Register listing. The metadata for a National Register listing is often available, but in many cases, the corresponding nomination PDF is difficult or impossible to locate. It is also not possible to perform a search for a specific keyword within all national register nominations.



If a PDF can be located for a nomination, these have technical limitations and accessibility issues for users who have visual impairments and use screen readers.



Scanned PDF documents offer poor text and image quality



The goal of my survey is to compile a list of other frustrations and challenges users encounter while accessing the National Register

Recommendations

These recommendations are a work in progress and continue to evolve as I review survey results and other examples of open data in the cultural heritage sector.

• **Prioritize Accessibility and web-centric design**

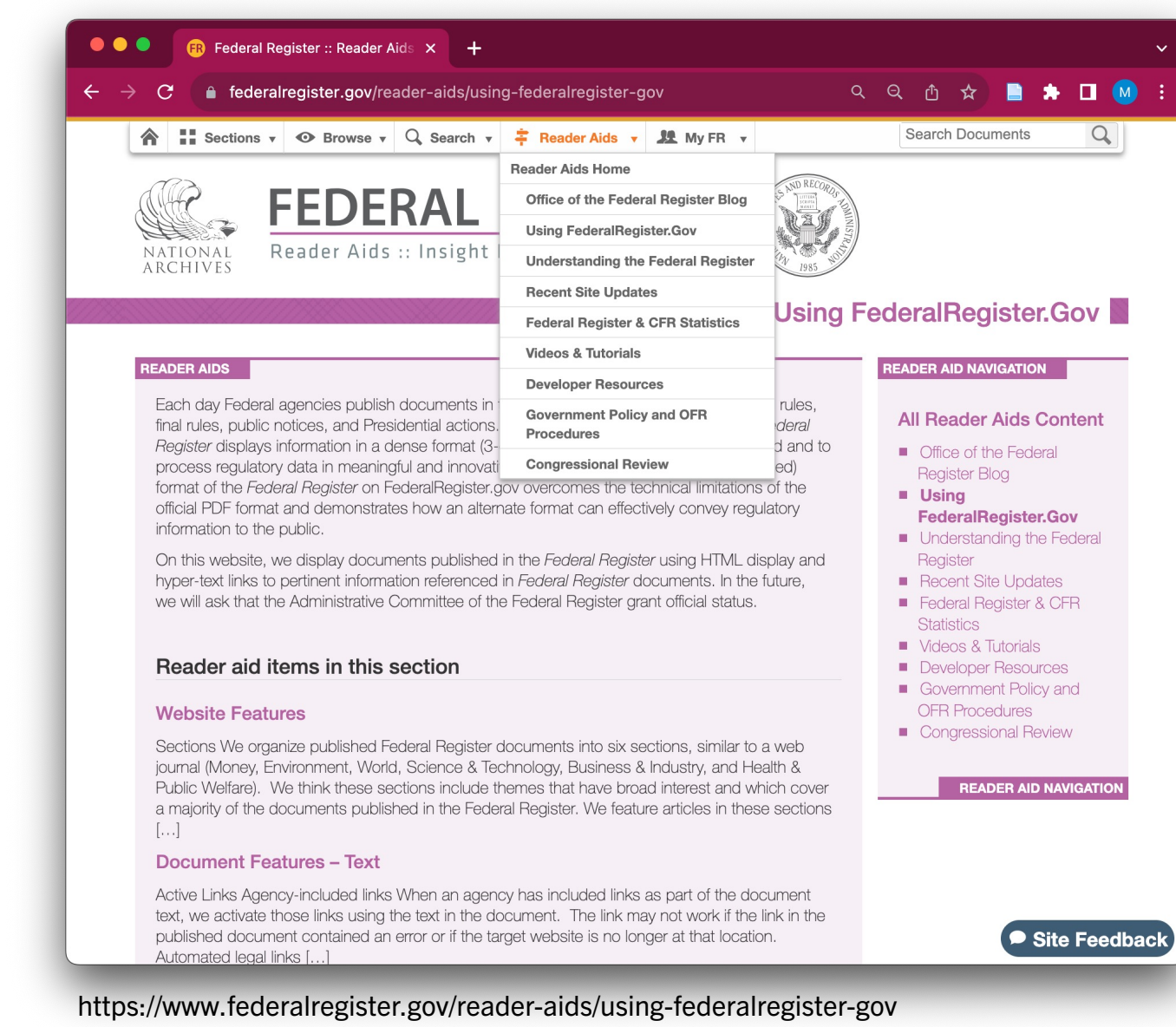
The Federal Register offers a user-friendly website and other features that allow programmatic access to data. The National Register should employ a similar interface and prioritize making “open and machine readable the new default”.

• **Promote Digital and Data Literacy**

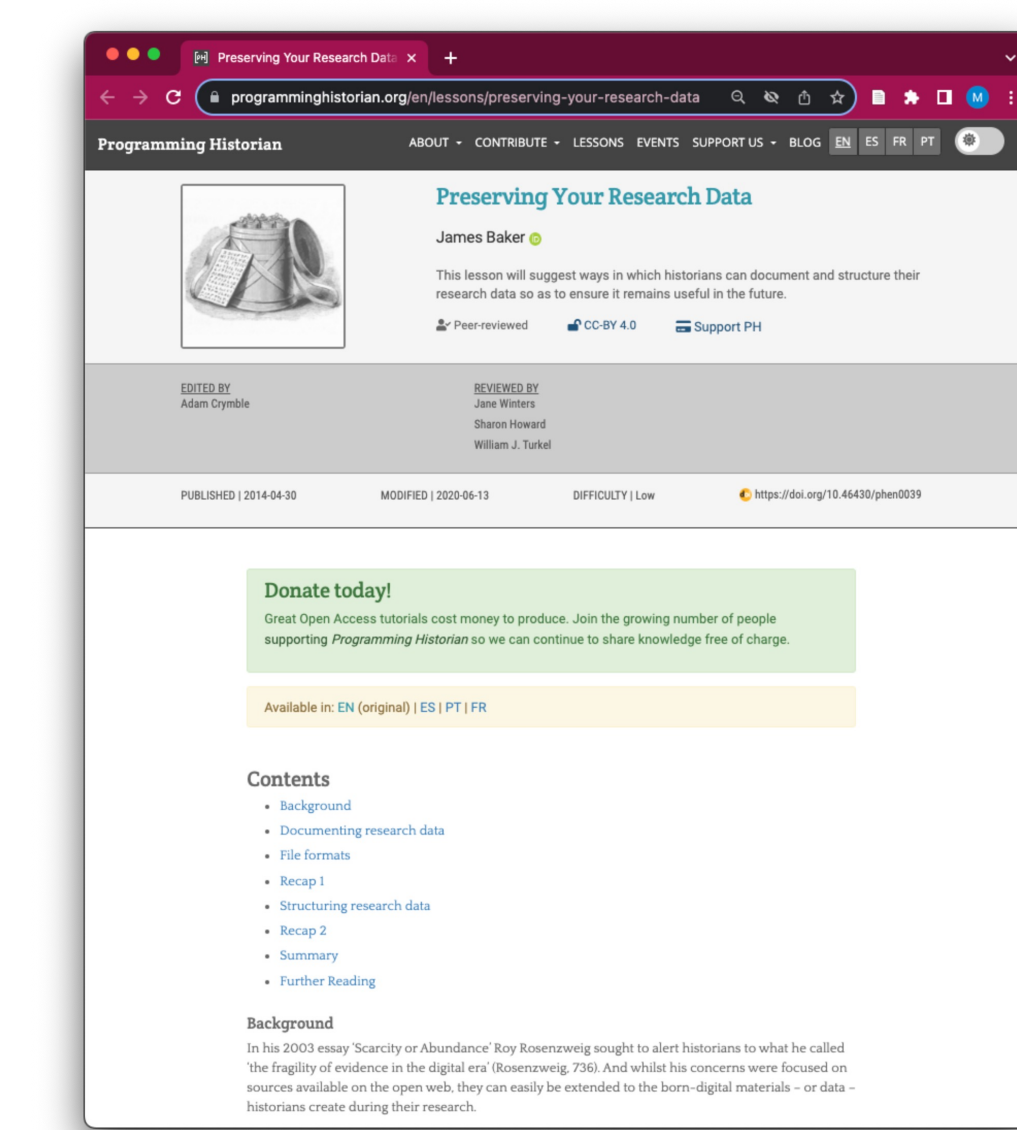
Historic preservation departments at universities should offer courses in conjunction with data and information science departments in order to prepare preservation practitioners to be skilled in the use and creation of open data sets. The longevity of data is important so that it can be available to researchers with new ideas, tools and lines of inquiry in the future.

• **Promote innovation and collaboration**

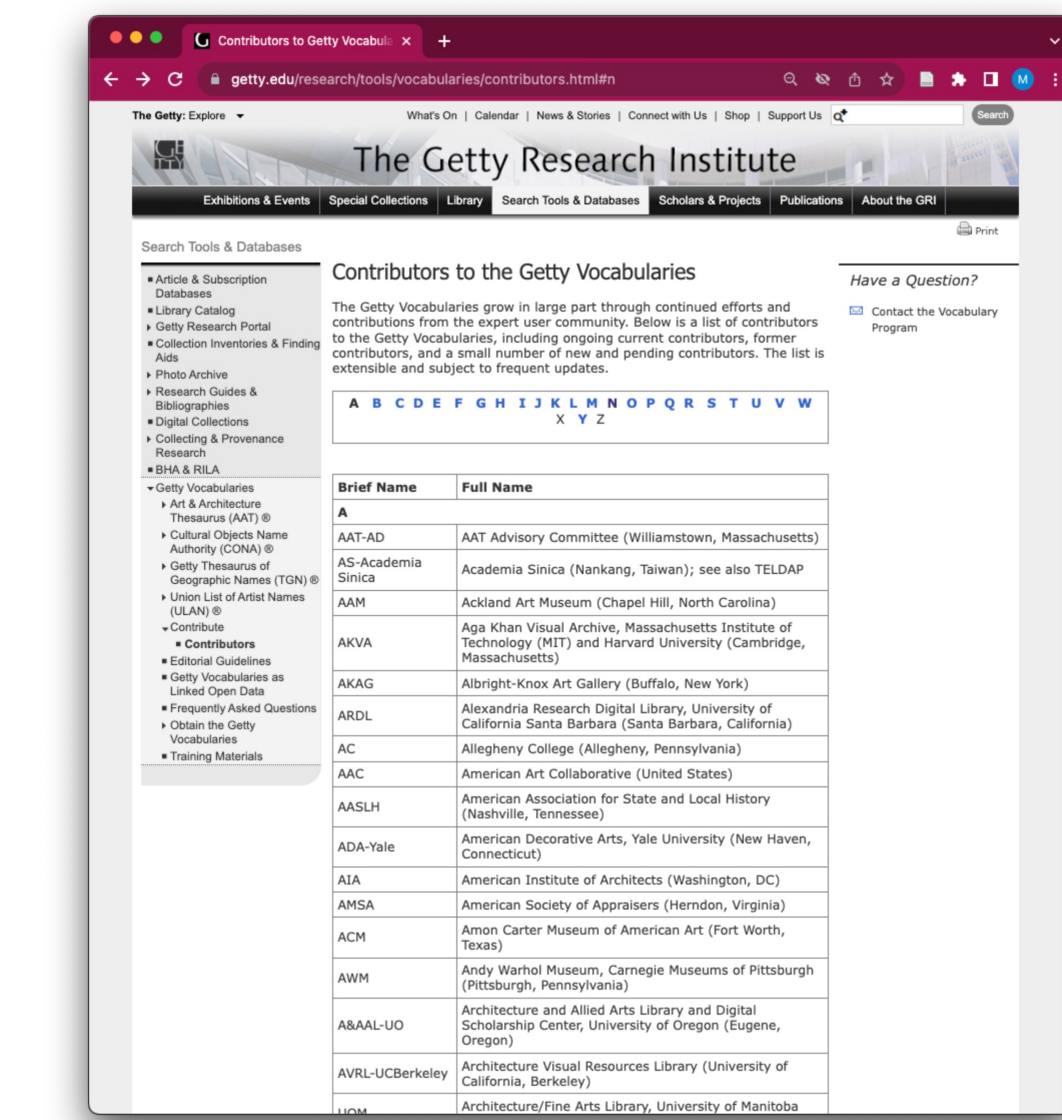
Conferences sessions and workshops should be a place for preservation professionals to learn about new ways that others are using National Register nominations and other preservation datasets for research and policy purposes. Collaboration with leaders of other open data initiatives such as the Library of Congress or the Getty Vocabularies linked open data would allow for researchers to ask new types of questions only possible with access to large, well-structured open data sets.



<https://www.federalregister.gov/readers-aids/using-federalregister-gov>



<https://programminghistorian.org/en/lessons/preserving-your-research-data>



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