Complex Information and the Future of Digital Scholarship

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“Dynamic Open-ended Information System”
Current Practice

• Digital Archives
  
  [American Memory, Library of Congress](https://memory.loc.gov)

• Thematic Research Archives
  
  [Valley of the Shadow (UVA)](https://valley.cmu.edu)
  [Eastern Shore and the Railroad (UVA)](https://escholarship.org/uc/eshadow)

• “New Model Scholarship”
  
  [“Differences Slavery Made”](https://www.arih.org/articles/differences-slavery-made)
  [Roots of Modern America (UNL)](https://content.lib.ne.us/keyword/roots-modern-america)
Roots of Modern America, 1850-1920

- Focus on Processes, Networks, and Systems
  - Emancipation
  - Railroad Growth
  - Migration and Settlement
  - Environmental Change
  - Law and Legal Systems
  - Political Development
Goals:

• To **build a distributed infrastructure** to support evidence and analysis from diverse institutions-- newspapers, business records, and manuscripts, as well as environmental field data, atlases, maps, and government reports.

• To **produce software systems** for representing spatial and temporal relationships among these disparate data

• To **develop interpretations** for those data, allowing users to access, retrieve, and process the data with the most sophisticated tools
Partner Institutions:
UVA--South region
UNL--Great Plains
Dynamic--for scale and complexity
Roots of Modern America: Chesapeake Regional View

- Nandua Creek
- Nassawadox Creek
- King’s Creek
Roots of Modern America: Chesapeake Regional View

- Nandua Creek
  - 1853
  - 1904
  - 1917

No. 44 Nanuda Creek & Eastern Shore of the Chesapeake Bay (A.D. Bache Supt), 1853.
Roots of Modern America: Chesapeake Regional View

- Nandua Creek
  - 1853
  - 1904
  - 1917

Department of Commerce and Labor, Coast and Geodetic Survey, O.H. Tittmann, Superintendent, Chesapeake Bay, Eastern Shore, Craddock Creek to Chesconessex Creek, Virginia, 1903-1904.
Roots of Modern America: Chesapeake Regional View

- Nandua Creek
  - 1853
  - 1904
  - 1917

Roots of Modern America: Railroad

Cape Charles, VA
1869

U.S. Coast Survey (Benjamin Peirce Supdt.) Eastern Shore of Virginia (Broad Water Sheet No. 2). Surveyed during the winter and spring of 69-70.
Roots of Modern America: Railroad

Cape Charles, VA
1904

Department of Commerce and Labor,
Coast and Geodetic Survey, O.H.
Tittmann, Superintendent, Chesapeake Bay, Eastern Shore, Cape Charles and Vicinity, Virginia.
Digital Humanities Challenges

- Authoring Tools XSLT
- Data Mining, Interpolation for Humanities Data
- Visual Modeling and Representation

Example—Valley News