

Greg Colati

Digital Directions, 2014

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# DIGITAL PRESERVATION AND REPOSITORIES





# Digital Repositories and Preservation

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Digital repositories provide the structure within which digital preservation takes place



# Sustainability

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“Ensuring that valuable digital assets will be available for future use is not simply a matter of finding sufficient funds.

It is about mobilizing resources—human, technical, and financial—across a spectrum of stakeholders diffuse over both space and time...”

--Sustainable Economics for a Digital Planet



# Four “itys” of Digital Repositories

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- **Sustainability**  
The digital object can be maintained and accessed over time
- **Authenticity**  
The digital object delivered is reliably true to the original
- **Interoperability**  
The ability of one standards-based object to be used in any other standards-based system
- **Reusability**  
Objects can be used in ways not related to original purpose

# Dis-Integrating a Digital Repository System



Information Universe

Presentation (Discovery and Access)

Management

Repository





# Dis-Integrating a Digital Repository System

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## Repository (Preservation)

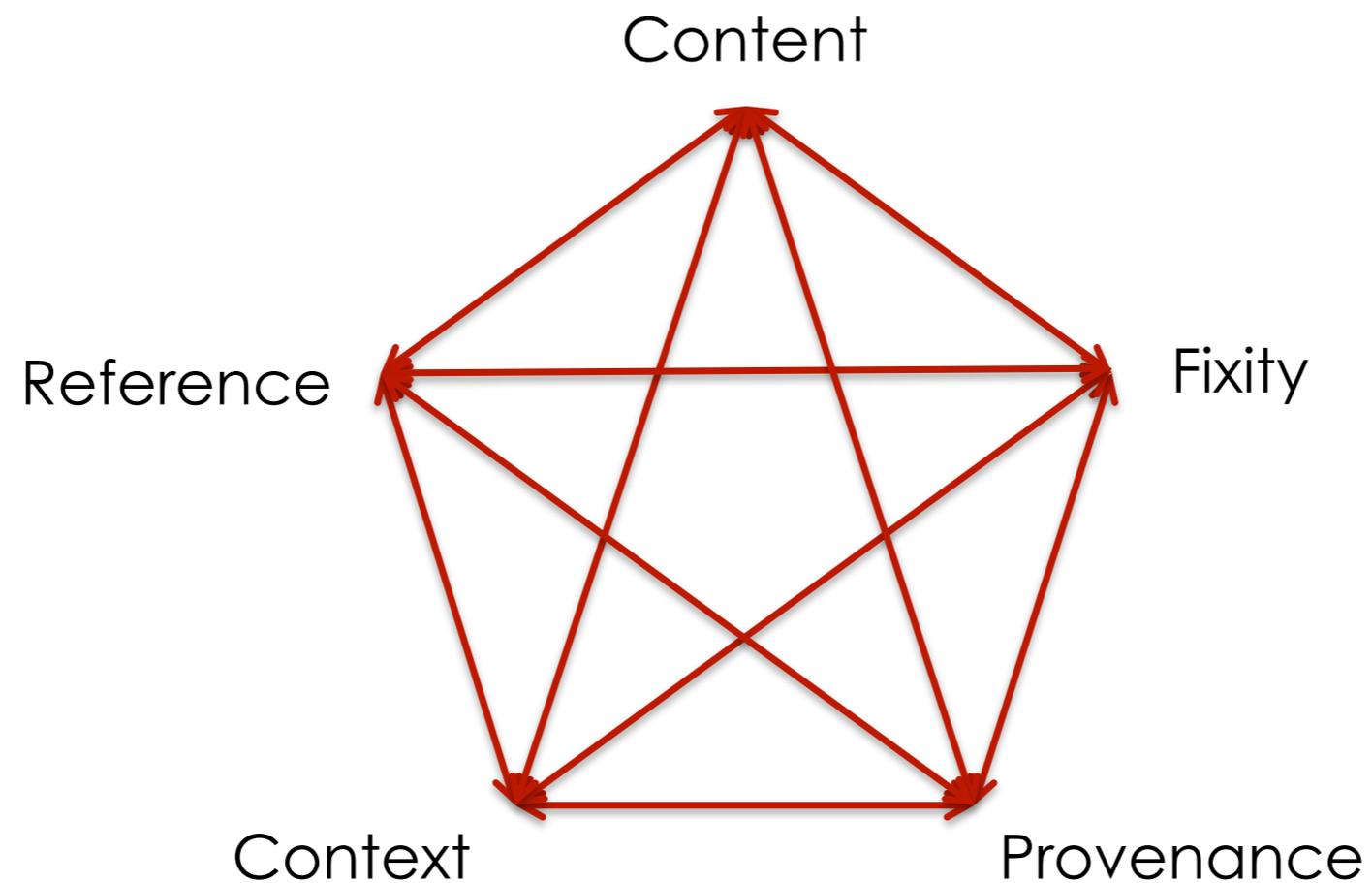


Systems that support the application of policies, controls, and preservation activities



# Five Attributes of Digital Integrity

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# Digital Integrity

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- formatted and structured bits (content)
- ‘frozen’ as discrete objects (fixity)
- in a predictable location (reference)
- with a documented chain of custody (provenance)
- and linkages to related objects (context)



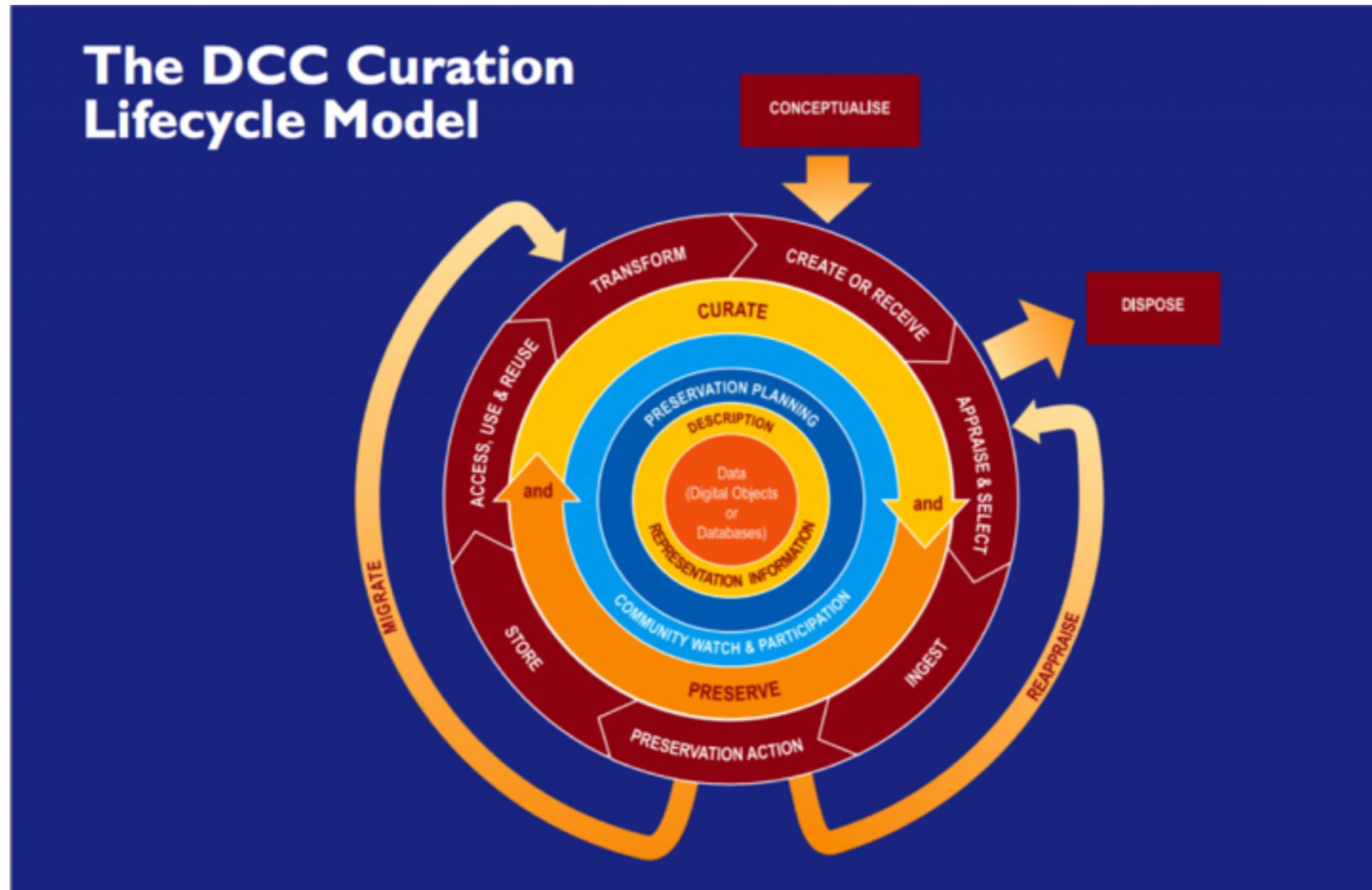
# Digital Integrity

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- formatted and structured bits (content) based on standards and best practices
- ‘frozen’ as discrete objects (fixity) documented through technical metadata and managed in a repository
- in a predictable location (reference) through persistent unique identifiers
- with a documented chain of custody (provenance) recorded in administrative metadata
- and linkages to related objects (context) through descriptive metadata, RDF, open data links within repository systems



Integrity + Time + Actions = Preservation





# Digital Preservation in Context: “It Depends”

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Preservation is a value proposition based on

- the purpose and mission of your organization
- the resources (time, money, training, knowledge, systems and partners) available to you now and in the future



# Dis-Integrating a Digital Repository System

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## Management



Tools for the Repository Manager: Supports Ingest, Curation Activities; Administrative, Descriptive, Technical, Rights, etc., Metadata Management



# Repository System Reality Check

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- Just having (fill in the blank) is not enough.
- No one application will do it all:
  - Manage digital objects and metadata
  - Provide public access
  - Permit easy repurposing
  - Preserve digital assets

Applications come and go,  
content endures.





# Evaluating the Repository Landscape

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# Different Tools for Different Purposes





# Dis-Integrating a Digital Repository System

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## Presentation (Discovery and Access)



Tools that enable simple or sophisticated user experiences within the control of the repository manager



# NEATLINE

*Plot Your Course in Space & Time*

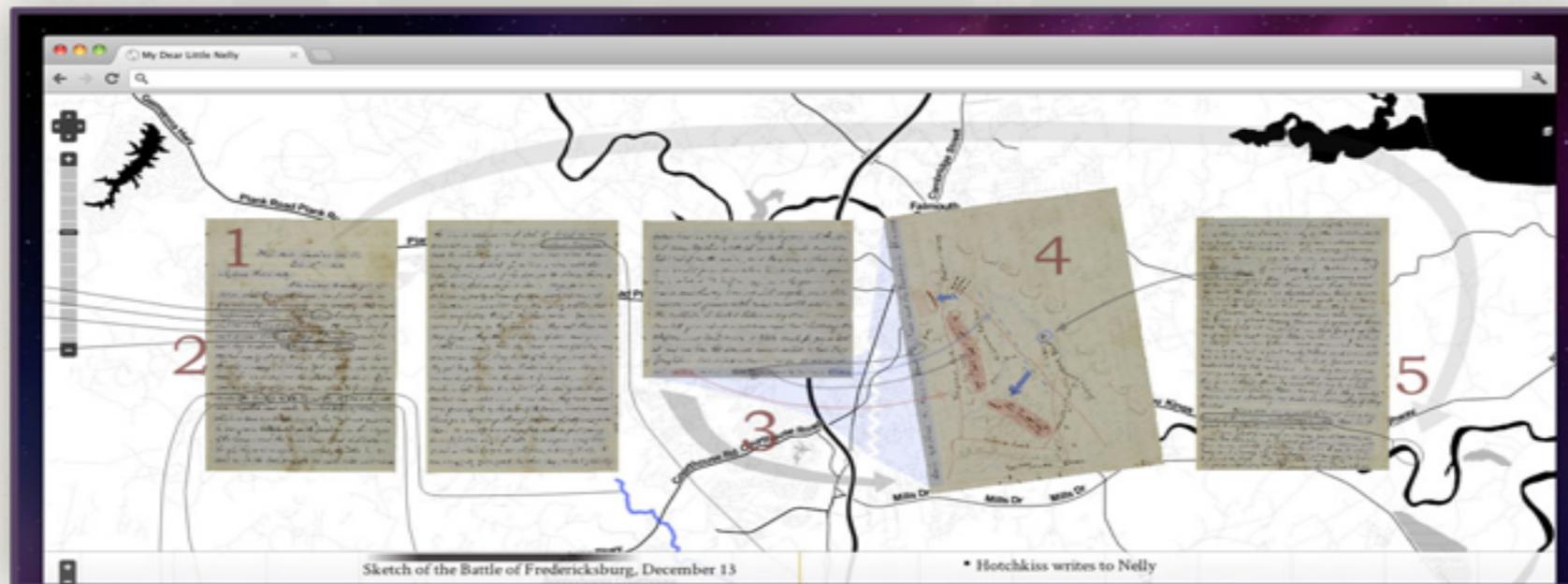
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We've prepared a number of sample Neatline exhibits to help stretch your imagination. Look below for projects in history, literature, and contemporary space and place — and come back soon to for examples of how Neatline can be used to annotate documents without reference to geography.

## "My Dear Little Nelly": Hotchkiss Maps the Battle of Fredericksburg for his Child



By David McClure | Map tiles by [Stamen Design](#), under [CC BY 3.0](#). Data by [OpenStreetMap](#), under [CC BY SA](#). | Maps from the Small Special Collections Library at the University of Virginia.



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LIST • PIE CHART • TABLE • **MAP**



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### University of Minnesota Memorial Stadium: 1924-1992

*University of Minnesota Memorial Stadium: 1924-1992* honors the history of the Memorial Stadium through an interactive digital archive containing photos, game footage, programs, correspondence, reports, and blueprints. The website encourages visitors to share their own stories and recollections of Memorial Stadium.

Project developed by the University of Minnesota Libraries.



C	H	<b>ROY ROSENZWEIG</b>
N	M	History AND
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LIBRARY  
HS11118

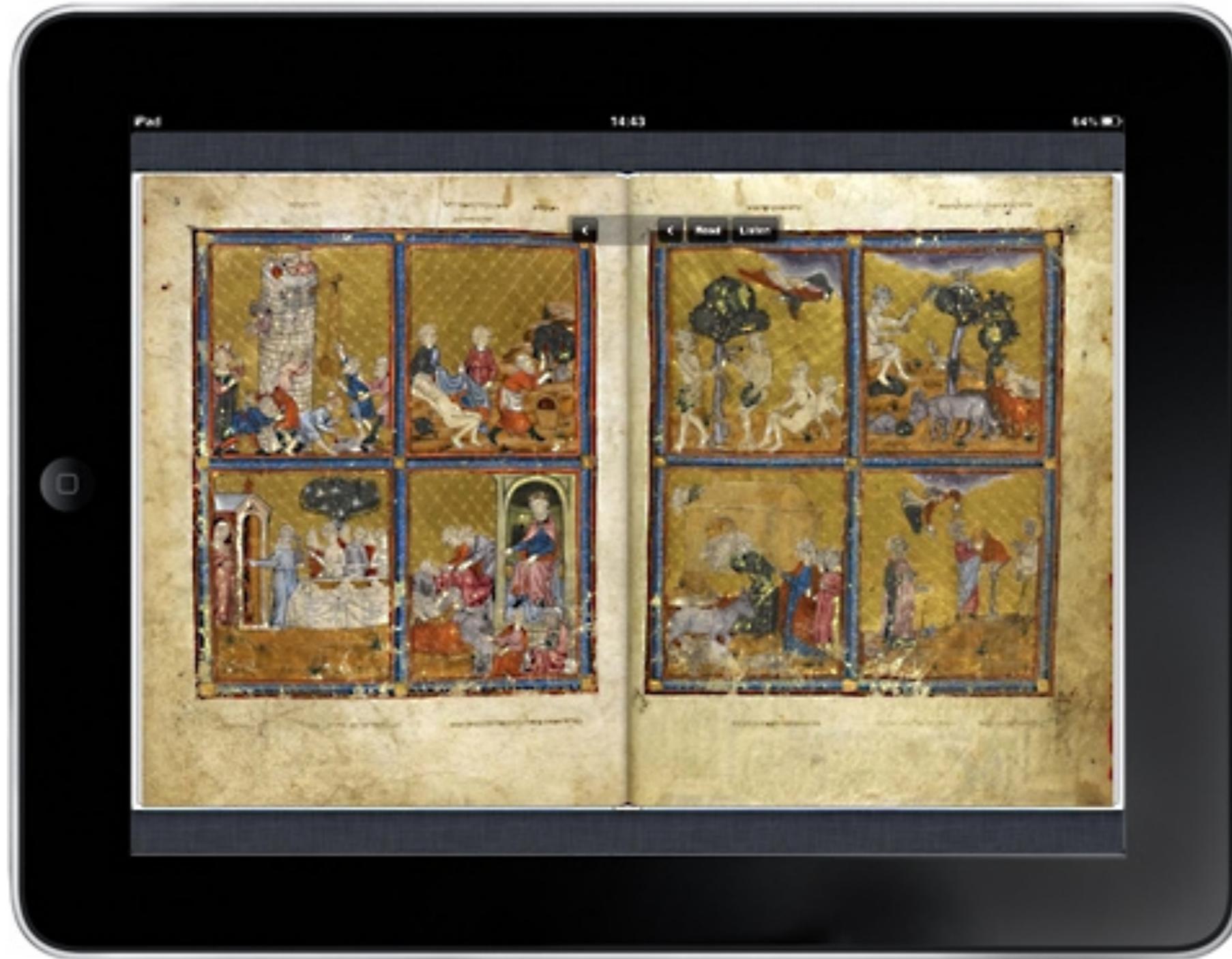
Click and drag to move the glass

Help ?

Pages 3 and 4

Mirror Text Audio Magnify

The image shows a digital viewer of an open manuscript. The left page contains handwritten text and several diagrams, including a large circle with a vertical line through it and a smaller circle below it. The right page also has handwritten text and diagrams, including a large circle with a vertical line through it and a smaller circle below it. A glass cursor is positioned over the right page, and a toolbar is visible at the bottom. The toolbar includes a 'Help' button with a question mark, a 'Pages 3 and 4' indicator, and buttons for 'Mirror', 'Text', 'Audio', and 'Magnify'. A red vertical label 'LIBRARY HS11118' is located in the top right corner of the viewer area.





# Dis-Integrating a Digital Repository System

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## Information Universe: Reuse and Exchange



Systems that leverage repository data without management or ownership responsibilities and beyond the control of the data owner (beyond rights statements)



# The Golden Age of Radio in the US

## Experiments and Breakthroughs: The Development of Radio

Themes

### The "Father of Radio" and the radio's first voice

The scientific background that would make radio possible dates back to the early 1800s, when things like electromagnetic waves and magnetic fields were just being discovered. In 1837, Samuel Morse patented his electric telegraph, which showed that it was possible for a telegraphic signal to travel long distances over a wire. By 1864, a physics professor at Cambridge University (England), James Clerk Maxwell, began thinking about electromagnetic waves and distance. He believed that waves could travel fast over long distances and his work set the stage for wireless transmission. Tests were conducted for the next several decades, challenging Maxwell's theories about distance and speed.

It wasn't until 1899 that the public got to see this scientific theory in action, when Italian scientist Guglielmo Marconi began using the telegraph to wirelessly announce the results of the America's Cup races, from a ship at sea, back to New York. Though the technology that made this telegraph possible was the result of many scientists' contributions, Marconi won the Nobel Prize for his work in 1909, and remains known as the "Father of Radio." While Marconi's wireless feat certainly made a splash, and helped Marconi establish his own broadcast company in 1901, radios were



"Guglielmo Marconi." Courtesy The New York Public Library.

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# All Layers are NOT Created Equal



Information Universe

Presentation (Discovery and Access)

Management

Repository

*Ephemeral*



*Foundational*





# Digital Preservation and Repositories

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Preservation is a value proposition based on

- the purpose and mission of your organization and
- the resources (time, money, training, knowledge, systems, and partners) available to you now and in the future

Digital Repositories provide the structure within which preservation decisions can be made and implemented



# Thank you

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