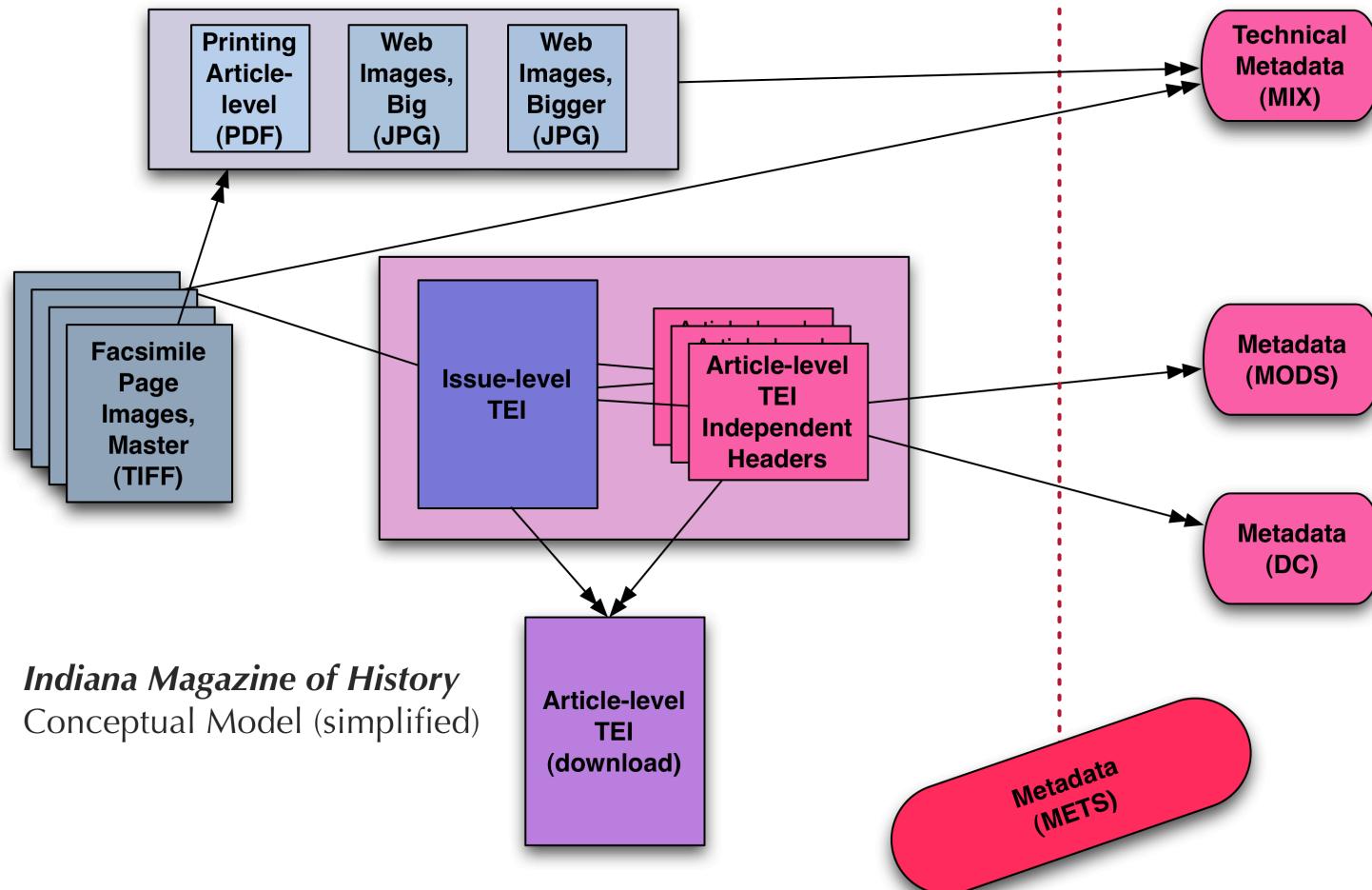


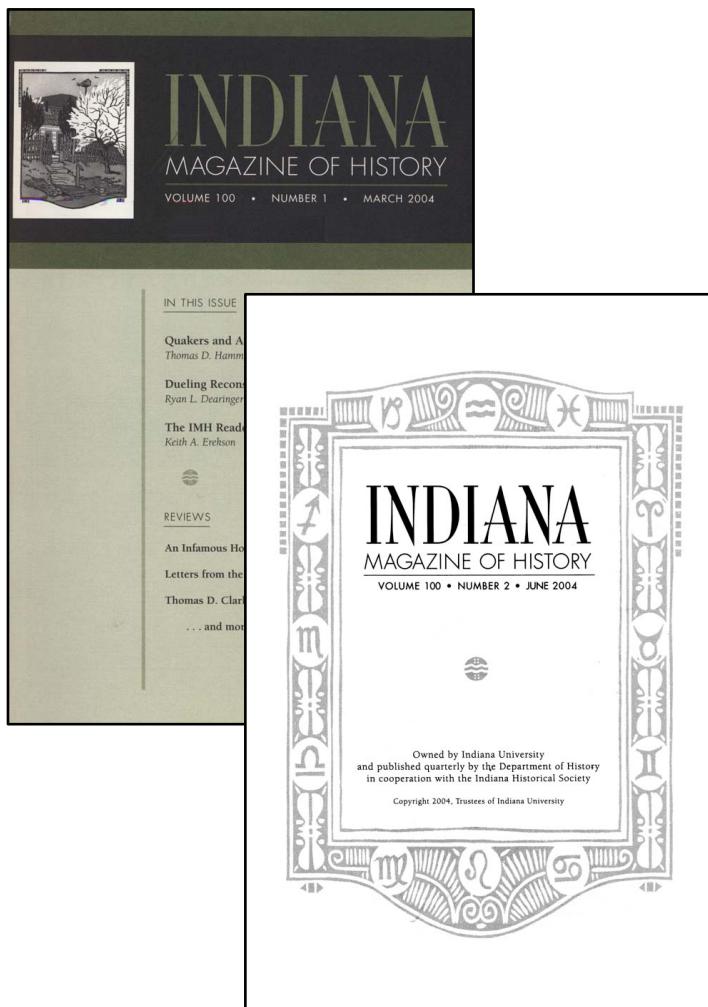
Document-Centric Framework for Navigating Texts Online: Intersection between TEI and METS

John A. Walsh, School of Library and Information Science
Michelle Dalmau, Digital Library Program
Indiana University
Digital Humanities, 25-29 June 2008

Full Text, Facsimiles and More!

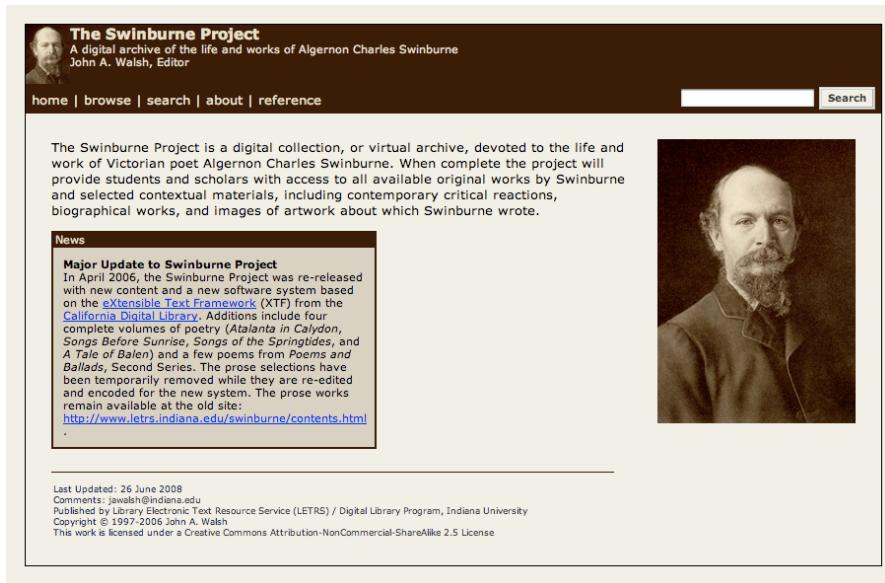


Indiana Magazine of History: Case Study



- ▶ [http://www.dlib.indiana.edu/collections/imh/\(1905-2006\)](http://www.dlib.indiana.edu/collections/imh/(1905-2006))
- ▶ Continuously published by Indiana University since 1905 in cooperation with the Indiana Historical Society
- ▶ Features peer-reviewed historical articles, research notes, annotated primary documents, reviews, and critical essays
- ▶ Full text & facsimile images
 - ▶ Encoded following TEI P4
 - ▶ Images for web display (JPG) and printing (PDF)
- ▶ Searching at the article-level
- ▶ Browsing at the issue-level

Swinburne Project: Case Study



- ▶ <http://swinburneproject.org>
- ▶ Features poetry, critical essays, letters and other reference and contextual materials by and about Victorian poet, Algernon Charles Swinburne
- ▶ Full text
 - ▶ Encoded following TEI P4
- ▶ Searching at the poem-level
- ▶ Browsing at the volume- and poem-level

TEI and METS: Discovery and Navigation

The screenshot displays a digital library interface for MBooks at the University of Michigan. The top navigation bar includes links for Login, Help, Feedback, and Mirlyn Library Catalog. Below the navigation bar, there are tabs for Home, Public Collections, and My Collections.

The main content area shows a document page with the title "AT AGINCOURT". The page number "6" is visible at the top left. The text discusses a party led by Sir Aylmer, including Lady Margaret and her husband, and mentions John Harpen, Sir Eustace, Agnes, Guy, Tom, and the miller. The text is presented in a standard black font on a white background.

To the right of the text, there is a sidebar with a red header containing the name "O'MALLEY". Below the header are links for INTRODUCTION, BROWSE LETTERS, SEARCH, and MACGREEVY HOME. There are also two small portraits of men, one in a suit and one in a military uniform.

Below the sidebar, a letter from Ernie O'Malley to Thomas MacGreevy dated 01 May 1939 is displayed. The letter is dated "1 May 1939". It is addressed to "Tomás" and begins with "Dear Tomás,". The letter discusses the author's health, an injury on Easter Sunday, and a visit to the Walrus pub. It also mentions a "pulley arrangement" for moving in bed. The letter concludes with "Many thanks for your letter. We drank your health at Easter and I was in an unique position for conversation as I injured my hand on Easter Sunday and had to remain on here for two weeks. My brother, Cecil, who had come from London, happens to be a surgeon so was able to improvise a pulley arrangement so that I could move in the bed. Its rowing does it. Yesterday was a glorious day here. I started off to explore the islands in my boat, the Walrus, visited old friends on Island Mór, who

On the far left, there are two smaller windows showing the same document page "AT AGINCOURT" and the letter from O'Malley to MacGreevy. These windows appear to be part of a zoomed-in view or a comparison feature.

At the bottom left, there is a "Contents" section listing "Front Cover" and "Title Page".

Motivations & Goals

- ▶ Develop a workflow to easily generate METS documents from TEI documents to facilitate text and facsimile correlation and page-turning (specifically with METS Navigator)
- ▶ Establish a single master source, i.e., the TEI document, for descriptive, structural, and other metadata about the digital text object
- ▶ Share workflow documentation for page turning and digital object management and preservation
- ▶ Embed workflow (sample TEI, METS and XSLT) as part of the METS Navigator open source bundle (currently only sample METS documents are included)

Informal Survey Says ...

- ▶ Local experimentation with TEI-METS mapping is not generally ready for public consumption
- ▶ Existing mappings are based on sparse TEI-encoding and are therefore not robust enough to drive more sophisticated navigation within and across texts
- ▶ Existing mappings to METS are not entirely derived from the TEI documents, but rely on other, perhaps non-XML sources, or even data derived simply from file system organizations of facsimile page images
- ▶ Existing mappings rely on Perl scripts and other METS-creation tools such as Excel spreadsheets rather than XML-based transformation technologies such as XSLT

Overview of TEI and METS

- ▶ The **T**ext **E**ncoding **I**nitiative **Guidelines “are addressed to anyone who works with any text in electronic form. They provide means of representing those features of a text which need to be identified explicitly in order to facilitate processing of the text by computer programs” (Sperberg-McQueen and Burnard). The TEI, now expressed in XML, provides elements, attributes and other mechanisms for encoding prose, poetry, drama, dictionaries and other texts.**
- ▶ The **M**etadata **E**ncoding and **T**ransmission **S**tandard is a data encoding and transmission specification, expressed in XML, that provides the means to convey the metadata necessary for both the management of digital objects within a repository and exchange of such objects between repositories and their users. METS expresses the hierarchical structure of digital objects, the names and locations of the files that comprise the digital objects, and associated descriptive and administrative metadata (METS Primer and Morgan Cundiff’s “An Introduction to METS”).

TEI and METS: Main Sections

TEI P5 has three major sections:

- ▶ **<teiHeader>** for descriptive, administrative and technical metadata
- ▶ **<text>** for syntactic or structural representation (e.g., `<front>`, `<div>`, `<p>`, `<l>`, `<pb>`) semantic representation (e.g., `<persName>`, `<placeName>`, ``, `<add>`)
- ▶ **<facsimile>** for representations of text in the form of images

METS has up to seven major sections:

- ▶ **<metsHdr>**: captures basic metadata about the METS document itself such as creator and role
- ▶ **<dmdSec>**: records descriptive metadata about the digital object(s) represented. Embed or point to standard or localized metadata expressed in XML such as *MARC*, *MODS*, *Dublin Core*, *TEI Header*, *EAD* ...
- ▶ **<amdSec>**: contains administrative metadata pertaining to the digital object, its component data files and any original source material from which the digital object is derived (e.g., technical, intellectual property, source and provenance).
- ▶ **<fileSec>**: provides an inventory of all related files and their locations that comprise the digital object
- ▶ **<structMap>**: organizes content into a coherent, hierarchical structure
- ▶ **<smLink>**: records hypertext links between nodes; useful for archiving web sites
- ▶ **<behaviorSec>**: mechanism for linking parts of a digital object with programming code

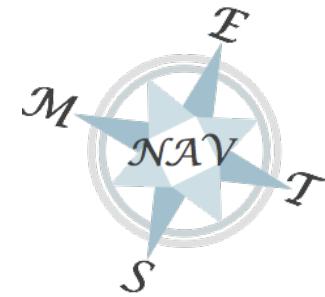
Introducing METS Navigator

The screenshot shows a digital edition of Herman Melville's *Moby-Dick*. The left sidebar contains a table of contents with chapters numbered 1 through 30. The main content area displays two pages of the text. The top of the page has navigation controls for image size (small), page numbers (1, 1, 2), view mode (image), search text, and download options (PDF, XML, TXT). Below the content area is a page navigation bar with arrows and a "go to" input field showing "6 of 300".

Descriptive Metadata

Structural Metadata

Configurable Metadata



METS Navigator: Next Generation

INDIANA MAGAZINE OF HISTORY

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<< Back to full text Download Article: Image Size: screen

George S. Cottman "The Wabash and Its Valley: Part I—The Earlier History" Indiana Magazine of History, 1, 2 (1905): 59-67

[Table of Contents](#) [Article Description](#)

[The Wabash and Its Valley: Part I—The Earlier History](#)
George S. Cottman (pp. 59-67)

[Revolutionary Soldiers in Putnam County](#)
W. H. RAGAN (pp. 68-73)

[The Journal of John Tipton: Commissioner to Locate Site for State Capital—1820](#)
John Tipton (pp. 74-79)

[Some Early Indiana Taverns](#)
J. H. B. Nowland (pp. 79-80)

[An Early Indiana Educator: John B. Anderson](#)
Emma Carleton (pp. 81-86)

[Origin of the Word Hoosier](#)
J. P. Dunn (pp. 86-96)

[The Primitive Hoosier](#)
George S. Cottman (pp. 96-97)

[Local Historical Societies](#)
George S. Cottman (pp. 98-103)

[An Indiana Bibliography](#)
George S. Cottman, W. E. Henry (pp. 103-105)

[The Robert Dale Owen Memorial](#)
George S. Cottman (pp. 105-107)

[Gleaned from the Pioneers](#)
George S. Cottman (pp. 107-110)

[Back Matter](#)

|< << of 54 >> >|

The Indiana Magazine of History

VOL. 1 SECOND QUARTER, 1905 NO. 2

The Wabash and Its Valley
Part I—The Earlier History

ONE who delves among old books and documents that bear upon early Indiana history is struck by the fact that a great and, in some respects, a peculiar interest attaches to the Wabash River and the region that it waters. Next to the Mississippi and Ohio it, more than any other Western stream, seems to have commanded the attention of old-time travelers, its relation to the St. Lawrence water system giving it an importance hardly appreciated to-day by those who are not students of history and of former conditions.

A glance at the map will show the magnitude of the Wabash, as compared with other Indiana rivers. Traversing the State in a great arc from the northeast part to the southwest extremity, it covers, counting its bends, more than five hundred miles. When we reflect that its valley is a tract of that extent, in some places many miles wide, and originally of un-

METS Navigator: Next Generation

The screenshot displays a complex digital document interface, likely a historical journal or collection of articles. The main area shows a hierarchical navigation structure with multiple levels of tables of contents and article descriptions.

Top Level:

- [**<< Back to full text**](#)
- [**Download Article**](#) (dropdown menu: PDF, XML)
- [**Image Size: screen**](#) (dropdown menu: large, screen)
- W. H. RAGAN "Revolutionary Soldiers in Putnam County" Indiana Magazine of History, 1, 2 (1905): 68-73**
- Table of Contents** | **Article Description**
- |< << [10] of 54 >> >|**

Second Level (Left Column):

- The Wabash and Its Valley: Part I—The Earlier History** George S. Cottman (pp. 59-67)
- Revolutionary Soldiers in Putnam County** W. H. RAGAN (pp. 68-73)
- The Journal of John Tipton for State Capital—1820** John Tipton (pp. 74-79)
- Some Early Indiana Taverns** J. H. B. Nowland (pp. 79-80)
- An Early Indiana Educator** Emma Carleton (pp. 81-82)
- Origin of the Word Hoosier** J. P. Dunn (pp. 86-96)
- The Primitive Hoosier** George S. Cottman (pp. 97-98)
- Local Historical Societies** George S. Cottman (pp. 99-100)
- An Indiana Bibliography** George S. Cottman, W. E. Hart (pp. 101-102)
- The Robert Dale Owen Manuscript** George S. Cottman (pp. 103-104)
- Gleanings from the Indiana State** George S. Cottman (pp. 105-106)

Second Level (Right Column):

- [**<< Back to full text**](#)
- [**Download Article**](#) (dropdown menu: PDF, XML)
- [**Image Size: large**](#) (checked) | [**Image Size: screen**](#)
- W. H. RAGAN "Revolutionary Soldiers in Putnam County" Indiana Magazine of History, 1, 2 (1905): 68-73**
- Table of Contents** | **Article Description**
- |< << [10] of 54 >> >|**

Third Level (Left Column):

- Title:** Revolutionary Soldiers in Putnam County
- Author:** W. H. RAGAN
- Date:** 1905
- Source:** Indiana Magazine of History Volume 1, Issue 2, pp. 68-73
- Article Type:** Article

Third Level (Right Column):

68 The Indiana Magazine of History

Fourth Level (Main Content):

Revolutionary Soldiers in Putnam County
By W. H. RAGAN
From the Papers of the Putnam County Historical Society.

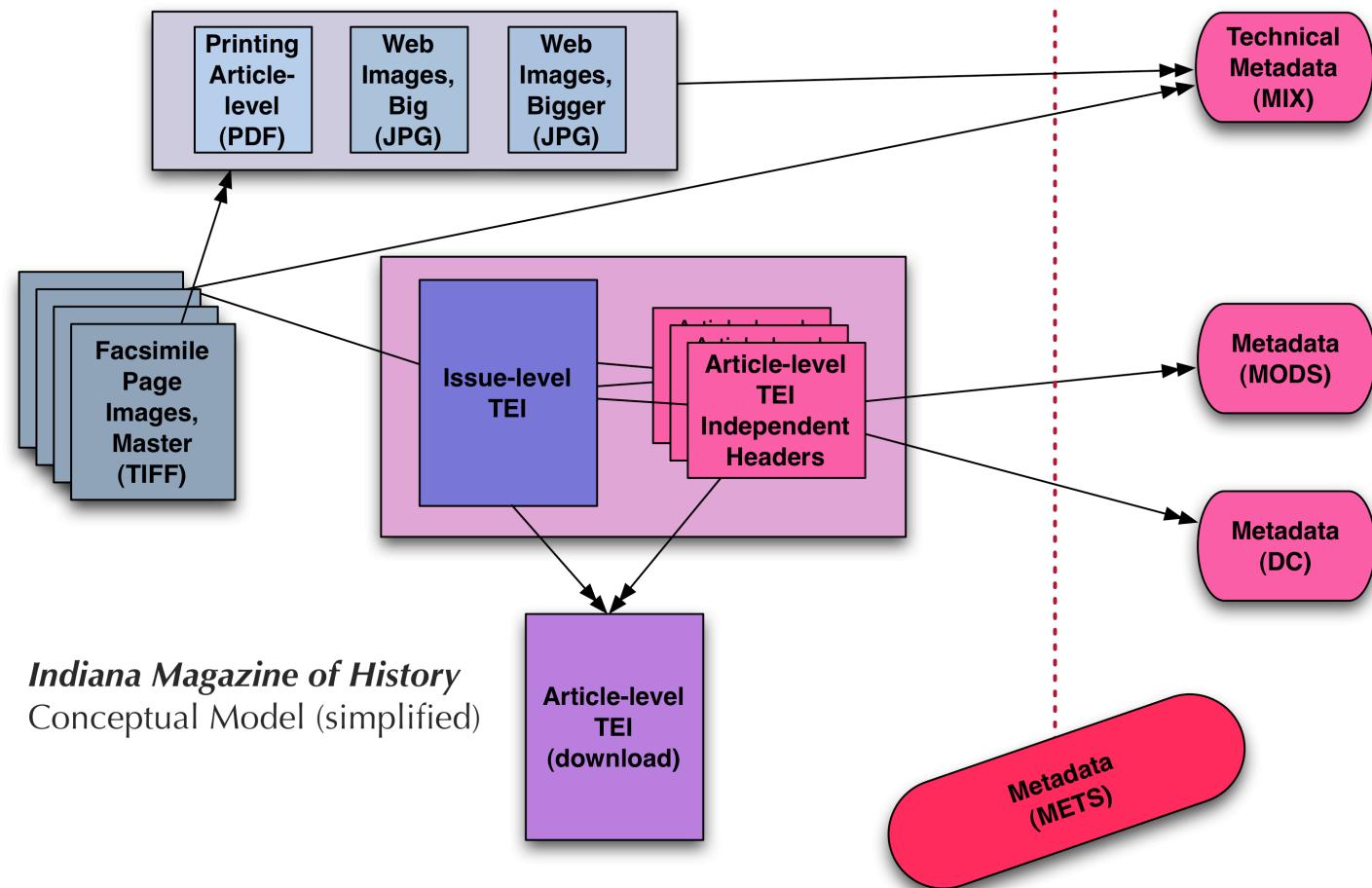
Text Preview:

IT is rather remarkable that Putnam County should have furnished a home for any survivor of the Revolutionary struggle. When we remember that a period of nearly forty years intervened between the close of the Revolutionary War

Navigation:

- [**<< Back to full text**](#)
- [**Download Article**](#) (dropdown menu: PDF, XML)
- [**Image Size: screen**](#) (dropdown menu: large, screen)
- Table of Contents** | **Article Description**
- The Wabash and Its Valley: Part I—The Earlier History** George S. Cottman (pp. 59-67)
- Revolutionary Soldiers in Putnam County** W. H. RAGAN (pp. 68-73)

TEI2METS: Magazine Case Study



TEI2METS for *Magazine*: TEI P4 Overview

```
1  <?xml version="1.0" encoding="UTF-8"?>
2  <!DOCTYPE TEI.2 SYSTEM "imh_issue.dtd">
3 ▷ <TEI.2 id="VAA4025-004-4">
4 ▷   <teiHeader> [52 lines]
57 ▷   <text>
58 ▷     <body>
59       <pb n="[153]" id="VAA4025-004-4-001"/>
60 ▷       <div type="scholarlyArticle" id="VAA4025-004-4-a01"> [1178 lines]
1239      <pb n="170" id="VAA4025-004-4-018"/>
1240 ▷       <div type="scholarlyArticle" id="VAA4025-004-4-a02"> [944 lines]
2185      <pb n="197" id="VAA4025-004-4-045"/>
2186 ▷       <div type="scholarlyArticle" id="VAA4025-004-4-a03"> [85 lines]
2272 ▷       <div type="scholarlyArticle" id="VAA4025-004-4-a04"> [68 lines]
2341      <pb n="[201]" id="VAA4025-004-4-049"/>
2342 ▷       <div type="editorialMaterial" id="VAA4025-004-4-a05"> [74 lines]
2417      <pb n="203" id="VAA4025-004-4-051"/>
2418 ▷       <div type="editorialMaterial" id="VAA4025-004-4-a06"> [152 lines]
2571 ▷       <div type="bookReview" id="VAA4025-004-4-a07"> [83 lines]
2655 ▷       <div type="bookReview" id="VAA4025-004-4-a08"> [32 lines]
2688 ▷       <div type="bookReview" id="VAA4025-004-4-a09"> [20 lines]
2709 ▷       <div type="bookReview" id="VAA4025-004-4-a10"> [14 lines]
2724     </body>
2725 ▷     <back> [5 lines]
2731   </text>
2732 </TEI.2>
```

TEI2METS: *Magazine* METS Overview

```
1  <?xml version="1.0" encoding="UTF-8"?>
2  <mets:mets xmlns:ds="http://schemas.dlib.indiana.edu/derivedSections/" xmlns:marc="http://www.loc.gov/marc"
3    xmlns:dc="http://purl.org/dc/elements/1.1/" xmlns:xlink="http://www.w3.org/1999/xlink"
4    xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:mix="http://www.loc.gov/mix/"
5    xmlns:oai_dc="http://www.openarchives.org/OAI/2.0/oai_dc/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
6    xmlns:indl="http://www.dlib.indiana.edu" xmlns:imhrepo="edu.indiana.dlib.xubmit.repository.IMHFederal"
7    xmlns:mets="http://www.loc.gov/METS/" xmlns:mods="http://www.loc.gov/mods/v3"
8    OBJID="http://purl.dlib.indiana.edu/indl/imh/VAA4025-004-4">
9    <mets:metsHdr CREATEDATE="2008-04-14T15:29:30.998-04:00"> [4 lines]
14   <mets:dmdSec ID="VAA4025-004-4-a01-dmd"> [71 lines]
86   <mets:dmdSec ID="VAA4025-004-4-a02-dmd"> [71 lines]
158  <mets:dmdSec ID="VAA4025-004-4-a03-dmd"> [71 lines]
230  <mets:dmdSec ID="VAA4025-004-4-a04-dmd"> [64 lines]
295  <mets:dmdSec ID="VAA4025-004-4-a05-dmd"> [65 lines]
361  <mets:dmdSec ID="VAA4025-004-4-a06-dmd"> [65 lines]
427  <mets:dmdSec ID="VAA4025-004-4-a07-dmd"> [79 lines]
507  <mets:dmdSec ID="VAA4025-004-4-a08-dmd"> [72 lines]
580  <mets:dmdSec ID="VAA4025-004-4-a09-dmd"> [72 lines]
653  <mets:dmdSec ID="VAA4025-004-4-a10-dmd"> [72 lines]
726  <mets:fileSec> [510 lines]
1237 <mets:structMap TYPE="physical"> [243 lines]
1481 <mets:structMap TYPE="logical"> [310 lines]
1792 </mets:mets>
1793
```

TEI2METS: *Magazine* XSLT Namespaces

- ▶ Metadata namespaces: Metadata Object Description Schema (MODS), Dublin Core (DC) and others
 - ▶ OAI-PMH Harvesting
 - ▶ Digital Object Repository (Fedora) Standard (cross-collection searching)
- ▶ METS file uses MODS and DC form of the bibliographic metadata that were derived from the TEI Header using XSLT

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <xsl:stylesheet xmlns:xsl="http://www.w3.org/1999/XSL/Transform" version="2.0"
3   xmlns:iudl="http://www.dlib.indiana.edu"
4   xmlns:xs="http://www.w3.org/2001/XMLSchema"
5   xmlns:imhrepo="edu.indiana.dlib.xubmit.repository.IMHFedoraRepositoryAdmin"
6   xmlns:mets="http://www.loc.gov/METS/"
7   xmlns:mods="http://www.loc.gov/mods/v3" xmlns:ds="http://schemas.dlib.indiana.edu/derivedSections/"
8   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
9   xmlns:marc="http://www.loc.gov/MARC21/slim"
10  xmlns:dc="http://purl.org/dc/elements/1.1/"
11  xmlns:xlink="http://www.w3.org/1999/xlink"
12  xmlns:mix="http://www.loc.gov/mix/" xmlns:oai_dc="http://www.openarchives.org/OAI/2.0/oai_dc/"
13  xsi:schemaLocation="http://www.loc.gov/METS/ http://www.loc.gov/standards/mets/version15/mets.xsd">
```

TEI2METS: *Magazine* XSLT P4 to METS

```
1  <?xml version="1.0" encoding="UTF-8"?>
2  <!--name space declarations-->
3  <xsl:output encoding="UTF-8" indent="yes" method="xml"/>
4  <xsl:key name="articles" match="//div" use="@id"/>
5  <xsl:template match="/TEI.2">
6    <mets:mets OBJID="http://purl.dlib.indiana.edu/indl/imh/{@id}">
7      <mets:metsHdr CREATEDATE="{current-dateTime()}"> [4 lines]
8      <xsl:for-each select="//div[@id]">
9        <mets:dmdSec ID="{@id}-dmd">
10       <mets:mdWrap MDTYPE="MODS"> [5 lines]
11       </mets:dmdSec>
12     </xsl:for-each>
13     <mets:fileSec>
14       <mets:fileGrp USE="screen"> [7 lines]
15       <mets:fileGrp USE="large"> [8 lines]
16       <mets:fileGrp USE="printable"> [7 lines]
17       <mets:fileGrp USE="encodedtext"> [8 lines]
18     </mets:fileSec>
19     <xsl:variable name="structMapLabel"
20       select="concat(/TEI.2/teiHeader/fileDesc/sourceDesc/biblStruct/monogr/title,
21                     ', Vol. ', /TEI.2/teiHeader/fileDesc/sourceDesc/biblStruct/monogr/imprint/biblScope[@type='volume'],
22                     ', No. ', /TEI.2/teiHeader/fileDesc/sourceDesc/biblStruct/monogr/imprint/biblScope[@type='issue'])"/>
23     <mets:structMap TYPE="physical">
24       <mets:div ORDER="1" LABEL="{{$structMapLabel}}> [7 lines]
25     </mets:structMap>
26     <!-- for logical structMap -->
27     <mets:structMap TYPE="logical"> [70 lines]
28   </mets:mets>
29   </xsl:template>
30   <xsl:function name="indl:substring-before-last"> [12 lines]
31 </xsl:stylesheet>
```

→ TEI template match

XSLT: 170 lines including Name space declarations

TEI2METS: *Magazine* XSLT dmdSec

- ▶ TEI Header transformed to MODS at Fedora ingest
- ▶ Every article within an issue contains bibliographic metadata in a dmdSec/mdWrap (metadata embedded)
- ▶ Supports navigation across articles within an issue in METS Navigator and display of article-level metadata

```
15 <xsl:key name="articles" match="//div" use="@id"/>
16 <xsl:template match="/TEI.2">
17   <mets:mets OBJID="http://purl.dlib.indiana.edu/indl/imh/{@id}">
18     <mets:metsHdr CREATEDATE="{current-dateTime()}"> [4 lines]
19     <xsl:for-each select="//div[@id]">
20       <mets:dmdSec ID="{@id}-dmd">
21         <mets:mdWrap MDTYPE="MODS">
22           <mets:xmlData>
23             <xsl:copy-of
24               select="document(concat('http://purl.dlib.indiana.edu/indl/imh/mets/', @id))//mods:mods"/>
25           </mets:xmlData>
26         </mets:mdWrap>
27       </mets:dmdSec>
28     </xsl:for-each>
```

TEI2METS: *Magazine* XSLT fileSec

- ▶ Web derivative images (JPG)
 - ▶ “Screen”
 - ▶ “Large”
- ▶ Article-level file for printing (PDF)
- ▶ Article-level encoded text file for download (XML/TEI)

```
33 ▾      <mets:fileSec>
34 ▷          <mets:fileGrp USE="screen"> [7 lines]
42 ▷          <mets:fileGrp USE="large"> [8 lines]
51 ▷          <mets:fileGrp USE="printable"> [7 lines]
59 ▷          <mets:fileGrp USE="encodedtext"> [7 lines]
67          </mets:fileSec>
```

TEI2METS: *Magazine* XSLT fileSec (detail)

- ▶ Article-level encoded text file for download (XML/TEI); multiple articles in issue (`xsl:for-each`)
- ▶ The file references in the XSL are persistent URLs generated at ingest (file info is derived from the repository environment, not entirely from the TEI itself)
 - ▶ TEI establishes links to images, article-level metadata, etc. via `@id`

```
59 ▾      <mets:fileGrp USE="encodedtext">
60 ▾          <xsl:for-each select="//div[@id]">
61 ▾              <mets:file ID="{@id}-encodedtext" GROUPID="{@id}" MIMETYPE="application/xml"
62                  SEQ="{position()}" USE="encodedtext">
63 ▾                  <mets:FLocat LOCTYPE="PURL"
64                      xlink:href="http://purl.dlib.indiana.edu/indl/imh/encodedtext/{@id}"/>
65                  </mets:file>
66          </xsl:for-each>
67      </mets:fileGrp>
```

TEI2METS: *Magazine* XSLT structMap

- ▶ Physical structMap generates sequential order of the page images (screen and large)

```
74
75  <mets:structMap TYPE="physical">
76    <mets:div ORDER="1" LABEL="${structMapLabel}">
77      <xsl:for-each select="//pb">
78        <mets:div TYPE="page" ORDER="{position()}" ORDERLABEL="{@n}">
79          <mets:fptr FILEID="{@id}-screen"/>
80          <mets:fptr FILEID="{@id}-large"/>
81        </mets:div>
82      </xsl:for-each>
83    </mets:div>
84  </mets:structMap>
```

TEI2METS: *Magazine* XSLT structMap

- ▶ Logical structMap generates the “table of contents” of a document (e.g., front matter, articles and back matter for the Magazine)
- ▶ Handles overlapping (e.g., book review articles are shorter and can therefore overlap across pages)

```
<xsl:variable name="mods"
  select="document(concat('http://purl.dlib.indiana.edu/indl/imh/mets/', @id))//mods:mods"/>
<xsl:variable name="articleLabel">
  <xsl:choose>
    <xsl:when test="@type eq 'scholarlyArticle'">
      <xsl:value-of
        select="if ($mods/mods:name[1]/mods:namePart[1]) then concat($mods/mods:name[1]/mods:namePart[1], ', '
          $mods/mods:titleInfo[1]/mods:title[1]) else $mods/mods:titleInfo[1]/mods:title[1]"/>
    </xsl:when>
    <xsl:when test="@type eq 'bookReview'"> [4 lines]
    <xsl:when test="@type eq 'editorialMaterial'"> [4 lines]
    <xsl:otherwise> [3 lines]
  </xsl:choose>
</xsl:variable>
```

Table of Contents	Article Description
<u>Front Matter</u>	
	<u>A Small World of Little Americans: The \$1 Diplomacy of Wendell Willkie's One World</u> John M. Jordan (pp. 173-204)
	<u>"absent So long from those I love": The Civil War Letters of Joshua Jones</u> Eugene H. Berwanger (pp. 205-239)
<u>Book Review</u>	
	Allen Safianow (pp. 240-243) Citizen Klansmen: The Ku Klux Klan in Indiana, 1921–1928, Leonard J. Moore

METS Navigator for Magazine

 INDIANA UNIVERSITY

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Volume 4, Issue 4, December 1908

1.

- Title:** [An Early Educational Report](#)
Author: [Daniel J. Caswell](#)
Date: December 1908
Source: *Indiana Magazine of History*, Volume 4, Issue 4, pp 153-169
Article Type: Article
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2.

- Title:** [The Civic Value of Local History](#)
Author: [Arthur W. Dunn](#)
Date: December 1908
Source: *Indiana Magazine of History*, Volume 4, Issue 4, pp 170-196
Article Type: Article
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3.

- Title:** [Cyrus Wilburn Hodgin](#)
Author: [Harlow Lindley](#)
Date: December 1908
Source: *Indiana Magazine of History*, Volume 4, Issue 4, pp 197-199
Article Type: Article
[View text](#) | [View page images](#) | [Print this article \(PDF\)](#)

4.

- Title:** [Charles B. Lasselle](#)
Author: Author Unknown
Date: December 1908

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page: 155 [[View Page Image](#)]

measures, which, if finally adopted by the Legislature, must be pregnant with such importance consequences.

Your committee have been induced to lay before the General Assembly, the result of their deliberations, so far as they have progressed, that the committee on the subject of education, may be as early as possible in possession of the facts and calculations upon which they may be called to report, and which shew the foundation of the systems which have heretofore been adopted by the older States.

The State of Indiana is estimated by your committee, to contain twenty-two millions three hundred and twelve thousand nine hundred and sixty acres, including land and water.

From this amount, your committee have made the following deductions:

	ACRES
For that part of the State covered by the waters of Lake Michigan	96,000
For those lands embraced by Clark's grant	149,000
For reservation in Knox and other counties	30,420
For lands reserved for the use of the University	46,080
Total amount of deduction	*417,500
Amount of the whole area	22,312,960
Amount of deduction	*417,500
	21,895,460

From which aggregate amount, one thirty-sixth part is to be taken as lands appropriated for the use of schools, amounting to six hundred and eight thousand two hundred and seven acres.

These lands, or part of them, your committee would recommend, should be put in market as soon as practicable; and the situation of the country will justify the measure.

The following table will show what may be realized by such sale, at the relative prices of one dollar and twenty-five cents to five dollars per acre, provided the whole amount should be put in market and can be sold:

* This is an error, but figures are copied from printed report.

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Total amount of deduction.....	*417,500
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Amount of deduction.....	417,500
<hr/>	
	21,895,460

TEI2METS for *Swinburne*: Configuration File

- ▶ METS Navigator requires the following information about the facsimiles:
 - ▶ Usage (e.g., thumbnail)
 - ▶ File extension
 - ▶ Mime type, e.g., image/tif
 - ▶ Location type, e.g., URL, PURL, etc.
 - ▶ URL or file prefix system
- ▶ `tei2mets-conf.xsl` contains configuration information for **facsimile formats** for the transformation from TEI to METS
 - ▶ Archival TIFFs, Derivative JPGS, thumbnails, etc.
- ▶ Facsimile formats expressed in a TEI document in lists

TEI2METS for *Swinburne*: Configuration File

```
1 <xsl:param name="imgform">
2     <tei:list xml:id="imgform">
3         <tei:item n="archive">
4             <tei:list>
5                 <tei:item n="extension"><xsl:value-of select=".tiff"/></tei:item>
6                 <tei:item n="mimetype"><xsl:value-of select="image/tif"/></tei:item>
7                 <tei:item n="loctype"><xsl:value-of select="URL"/></tei:item>
8                 <tei:item n="urlprefix"><xsl:value-of
9 select="http://localhost/~jawalsh/swinburne/img/'"/></tei:item>
10            </tei:list>
11        </tei:item>
12        <tei:item n="screen">
13            <tei:list>
14                <tei:item n="extension"><xsl:value-of select=".jpg"/></tei:item>
15                <tei:item n="mimetype"><xsl:value-of select="image/jpeg"/></tei:item>
16                <tei:item n="loctype"><xsl:value-of select="URL"/></tei:item>
17                <tei:item n="urlprefix"><xsl:value-of
18 select="http://localhost/~jawalsh/swinburne/img/'"/></tei:item>
19            </tei:list>
20        </tei:item>
21    ...</tei:list>
22 </xsl:param>
```

TEI2METS for *Swinburne*: XSLT P5 to METS

```
1  <?xml version="1.0" encoding="UTF-8"?>
2  <xsl:stylesheet xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
3      xpath-default-namespace="http://www.tei-c.org/ns/1.0" xmlns:tei="http://www.tei-c.org/ns/1.0"
4      xmlns:mets="http://www.loc.gov/METS/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
5      xmlns:xlink="http://www.w3.org/1999/xlink" version="2.0">
6      <xsl:include href="tei2mets-conf.xsl"/>                                → Includes config file
7      <xsl:output indent="yes"/>
8      <xsl:param name="tei"> [2 lines]
11     <xsl:template match="TEI"> [12 lines]                                     → TEI template match
24     <xsl:template name="metsHdr"> [11 lines]
36     <xsl:template name="dmdSec"> [9 lines]
46     <xsl:template name="fileSec"> [8 lines]
55     <xsl:template match="tei:item" mode="fileSec"> [49 lines]                  XSLT: 267 lines
105    <xsl:template name="structMap-physical"> [18 lines]
124    <xsl:template match="pb" mode="structMap-physical"> [19 lines]
144    <xsl:template match="tei:item" mode="structMap-physical"> [8 lines]
153    <xsl:template name="structMap-logical"> [9 lines]
163    <xsl:template match="/TEI/text|front|front/div|front/titlePage|front/epigraph|back|back/div|text|body"> [67 lines]
231    <xsl:template match="pb"> [22 lines]
254    <xsl:template match="text()" />
255    <xsl:template name="labelCitation"> [5 lines]
261    <!-- [5 lines]
267  </xsl:stylesheet>
268 |
```

Motivations & Goals

- ▶ Develop a workflow that easily generates METS documents from TEI documents to facilitate text and facsimile correlation and page-turning (specifically with METS Navigator)
 - ▶ Documentation still crude at this stage; work in progress
- ▶ Establish a single master source, i.e., the TEI document, for descriptive, structural, and other metadata about the digital object
 - ▶ Advocate for the integrity of a well and thoroughly encoded text (protest Googlization of texts!)
- ▶ Share workflow documentation for page turning and digital object management and preservation
 - ▶ <http://wiki.dlib.indiana.edu/confluence/x/0QM>
- ▶ Embed workflow (sample TEI, METS and XSLT) as part of the METS Navigator open source bundle (currently only sample METS documents are included)
 - ▶ New release of METS Navigator for books and serials expected December 2009

Questions for John?

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