

Cutting Through the Hype About Metadata
Indiana Online Users Group, Fall 2005
Jenn Riley

Some data structure standards for descriptive metadata

Generic

- MAchine Readable Cataloging (MARC)
<<http://www.loc.gov/marc/>>
- Metadata Object Description Schema (MODS)
<<http://www.loc.gov/mods/>>
- Dublin Core (DC)
<<http://www.dublincore.org/>>

Specialized

- Visual Resources Association Core (VRA Core)
<<http://www.vraweb.org/vracore3.htm>>
- Encoded Archival Description (EAD)
<<http://www.loc.gov/ead/>>
- Government Information Locator Service (GILS)
<<http://www.gils.net/>>
- Federal Geographic Data Committee (FGDC)/Content Standard for Digital Geospatial Metadata (CSDGM)
<<http://www.fgdc.gov/metadata/metadata.html>>
- Darwin Core (DwC)
<<http://speciesanalyst.net/docs/dwc/>>

Some data content standards for descriptive metadata

- Anglo-American Cataloging Rules (AACR2)
<<http://www.aacr2.org/>>
- Describing Archives: A Content Standard (DACS)
<<http://www.archivists.org/catalog/pubDetail.asp?objectID=1279>>
- Descriptive Cataloging of Rare Materials (Books) (DCRM(B))
<<http://www.folger.edu/bsc/dcrb/DCRMBpublicreviewdraft20050531.html>>
- Cataloging Cultural Objects (CCO)
<<http://www.vraweb.org/ccoweb/>>

Some other interesting metadata standards

Technical metadata

Metadata for Images in XML (MIX)
<<http://www.loc.gov/standards/mix/>>

Preservation metadata

PReservation Metadata Implementation Strategies (PREMIS)
<<http://www.oclc.org/research/projects/pmwg/>>

Rights metadata

Open Digital Rights Language (ODRL)
<<http://odrl.net/>>
eXtensible Rights Markup Language (XrML)
<<http://www.xrml.org/>>

Content markup

Text Encoding Initiative (TEI)
<<http://www.tei-c.org/>>
MusicXML
<<http://www.musicxml.org/xml.html>>

Sample MODS record

```
<?xml version='1.0' encoding='UTF-8' ?>
<mods xmlns:xlink="http://www.w3.org/1999/xlink" version="3.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.loc.gov/mods/v3"
xsi:schemaLocation="http://www.loc.gov/mods/v3 http://www.loc.gov/standards/mods/v3/mods-3-0.xsd">
```

```
<titleInfo>
  <title>Sound and fury :</title>
  <subTitle>the making of the punditocracy /</subTitle>
</titleInfo>
<name type="personal">
  <namePart>Alterman, Eric</namePart>
  <role>
    <roleTerm type="text">creator</roleTerm>
  </role>
</name>
<typeOfResource>text</typeOfResource>
<genre authority="marc">bibliography</genre>
<originInfo>
  <place>
    <placeTerm authority="marccountry" type="code">nyu</placeTerm>
  </place>
  <place>
    <placeTerm type="text">Ithaca, N. Y.</placeTerm>
  </place>
  <publisher>Cornell University Press</publisher>
  <dateIssued>c1999</dateIssued>
  <dateIssued encoding="marc">1999</dateIssued>
  <issuance>monographic</issuance>
</originInfo>
<language>
  <languageTerm authority="iso639-2b" type="code">eng</languageTerm>
</language>
<physicalDescription>
  <form authority="marcform">print</form>
  <extent>vii, 322 p. ; 23 cm.</extent>
</physicalDescription>
<note type="statement of responsibility">Eric Alterman.</note>
<note>Includes bibliographical references (p. 291-312) and index.</note>
<subject authority="lsh">
  <topic>Journalism</topic>
  <topic>Political aspects</topic>
  <geographic>United States.</geographic>
</subject>
<subject authority="lsh">
  <geographic>United States</geographic>
  <topic>Politics and government</topic>
  <temporal>20th century.</temporal>
</subject>
<subject authority="lsh">
  <topic>Mass media</topic>
  <topic>Political aspects</topic>
  <geographic>United States.</geographic>
</subject>
<subject authority="lsh">
  <topic>Television and politics</topic>
  <geographic>United States.</geographic>
</subject>
<subject authority="lsh">
  <topic>Press and politics</topic>
```

<geographic>United States.</geographic>
</subject>
<subject authority="lcs" >
<topic>Talk shows</topic>
<geographic>United States.</geographic>
</subject>
<classification authority="lcc">PN4888.P6 A48 1999</classification>
<classification edition="21" authority="ddc">071/.3</classification>
<recordInfo>
<recordContentSource>DLC</recordContentSource>
<recordCreationDate encoding="marc">990730</recordCreationDate>
<recordChangeDate encoding="iso8601">20000406144503.0</recordChangeDate>
<recordIdentifier>11761548</recordIdentifier>
</recordInfo>
</mods>

Sample METS record

```
<?xml version="1.0" standalone="no"?>
<mets:mets xmlns="http://www.loc.gov/METS/" xmlns:mets="http://www.loc.gov/METS/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xlink="http://www.w3.org/TR/xlink"
  xsi:schemaLocation="http://www.loc.gov/METS/ http://www.loc.gov/standards/mets/mets.xsd
http://www.loc.gov/MARC21/slim http://www.loc.gov/standards/marcxml/schema/MARC21slim.xsd"
  xmlns:marc21="http://www.loc.gov/MARC21/slim">
  <mets:metsHdr CREATEDATE="2004-07-24T00:00:00">
    <mets:agent ROLE="CREATOR">
      <mets:name>Jenn Riley</mets:name>
    </mets:agent>
  </mets:metsHdr>
  <mets:dmdSec ID="dmdMARC21slim">
    <mets:mdWrap MIMETYPE="text/xml" MDTYPE="MARC" LABEL="MARC21 slim metadata">
      <mets:xmlData>
        <marc21:collection>
          <marc21:record>
            <marc21:leader>00869nam 22002295a 4500</marc21:leader>
            <marc21:controlfield tag="001">CAE4142BB</marc21:controlfield>
            <marc21:controlfield tag="008">000111s1911 cau b 000 0 eng d</marc21:controlfield>
            <marc21:datafield tag="035" ind1=" " ind2=" ">
              <marc21:subfield code="a">(InU)CAE4142BB</marc21:subfield>
            </marc21:datafield>
            <marc21:datafield tag="035" ind1=" " ind2=" ">
              <marc21:subfield code="a">(OCoLC)ocm43255631</marc21:subfield>
            </marc21:datafield>
            <marc21:datafield tag="040" ind1=" " ind2=" ">
              <marc21:subfield code="a">IUL</marc21:subfield>
              <marc21:subfield code="c">IUL</marc21:subfield>
            </marc21:datafield>
            <marc21:datafield tag="090" ind1=" " ind2=" ">
              <marc21:subfield code="a">PA6646</marc21:subfield>
              <marc21:subfield code="b">.F7</marc21:subfield>
            </marc21:datafield>
            <marc21:datafield tag="100" ind1="1" ind2=" ">
              <marc21:subfield code="a">Foster, B. O.</marc21:subfield>
            </marc21:datafield>
            <marc21:datafield tag="245" ind1="1" ind2="0">
              <marc21:subfield code="a">Propertiana /</marc21:subfield>
              <marc21:subfield code="c">by Benjamin Oliver Foster.</marc21:subfield>
            </marc21:datafield>
            <marc21:datafield tag="260" ind1=" " ind2=" ">
              <marc21:subfield code="a">[s.l. :</marc21:subfield>
              <marc21:subfield code="b">Stanford University</marc21:subfield>
              <marc21:subfield code="c">1911.</marc21:subfield>
            </marc21:datafield>
            <marc21:datafield tag="300" ind1=" " ind2=" ">
              <marc21:subfield code="a">pp. [100]-110 ;</marc21:subfield>
              <marc21:subfield code="b">24 cm.</marc21:subfield>
            </marc21:datafield>
            <marc21:datafield tag="440" ind1=" " ind2="0">
              <marc21:subfield code="a">Leland Stanford Junior University publications.</marc21:subfield>
              <marc21:subfield code="p">University series</marc21:subfield>
            </marc21:datafield>
            <marc21:datafield tag="500" ind1=" " ind2=" ">
              <marc21:subfield code="a">"Reprinted from the Matzke memorial volume, Leland Stanford Junior University
publications, university series, Stanford University, October 1911."</marc21:subfield>
            </marc21:datafield>
            <marc21:datafield tag="591" ind1=" " ind2=" ">
              <marc21:subfield code="a">BB: I004 retro/o</marc21:subfield>
          </marc21:record>
        </marc21:collection>
      </mets:xmlData>
    </mets:mdWrap>
  </mets:dmdSec>
</mets:mets>
```

```
</marc21:datafield>
  <marc21:datafield tag="600" ind1="1" ind2="0">
    <marc21:subfield code="a">Propertius, Sextus</marc21:subfield>
    <marc21:subfield code="x">Criticism and interpretation.</marc21:subfield>
  </marc21:datafield>
  <marc21:datafield tag="998" ind1=" " ind2=" ">
    <marc21:subfield code="a">1/11/2000</marc21:subfield>
    <marc21:subfield code="b">1/11/2000</marc21:subfield>
    <marc21:subfield code="c">1/11/2000</marc21:subfield>
  </marc21:datafield>
  <marc21:datafield tag="596" ind1=" " ind2=" ">
    <marc21:subfield code="a">1</marc21:subfield>
  </marc21:datafield>
  <marc21:datafield tag="926" ind1=" " ind2=" ">
    <marc21:subfield code="a">B-MAIN</marc21:subfield>
    <marc21:subfield code="b">_RCSTACKS</marc21:subfield>
    <marc21:subfield code="c">PA6646 .F7</marc21:subfield>
    <marc21:subfield code="d">NORMAL</marc21:subfield>
    <marc21:subfield code="f">1</marc21:subfield>
  </marc21:datafield>
</marc21:record>
</marc21:collection>
</mets:xmlData>
</mets:mdWrap>
</mets:dmdSec>
<mets:fileSec>
  <mets:fileGrp>
    <mets:fileGrp USE="archive">
      <mets:file ID="CAE4142-01-archive" GROUPID="CAE4142-01" MIMETYPE="image/tif" SEQ="1"
        CREATED="2004-07-22T14:00:00" USE="archive">
        <mets:FLocat LOCTYPE="PURL" xlink:href="http://purl.dlib.indiana.edu/iudl/">
        </mets:file>
      <mets:file ID="CAE4142-02-archive" GROUPID="CAE4142-02" MIMETYPE="image/tif" SEQ="2"
        CREATED="2004-07-22T14:00:00" USE="archive">
        <mets:FLocat LOCTYPE="PURL" xlink:href="http://purl.dlib.indiana.edu/iudl/">
        </mets:file>
      <mets:file ID="CAE4142-03-archive" GROUPID="CAE4142-03" MIMETYPE="image/tif" SEQ="3"
        CREATED="2004-07-22T14:00:00" USE="archive">
        <mets:FLocat LOCTYPE="PURL" xlink:href="http://purl.dlib.indiana.edu/iudl/">
        </mets:file>
      <mets:file ID="CAE4142-04-archive" GROUPID="CAE4142-04" MIMETYPE="image/tif" SEQ="4"
        CREATED="2004-07-22T14:00:00" USE="archive">
        <mets:FLocat LOCTYPE="PURL" xlink:href="http://purl.dlib.indiana.edu/iudl/">
        </mets:file>
      <mets:file ID="CAE4142-05-archive" GROUPID="CAE4142-05" MIMETYPE="image/tif" SEQ="5"
        CREATED="2004-07-22T14:00:00" USE="archive">
        <mets:FLocat LOCTYPE="PURL" xlink:href="http://purl.dlib.indiana.edu/iudl/">
        </mets:file>
      <mets:file ID="CAE4142-06-archive" GROUPID="CAE4142-06" MIMETYPE="image/tif" SEQ="6"
        CREATED="2004-07-22T14:00:00" USE="archive">
        <mets:FLocat LOCTYPE="PURL" xlink:href="http://purl.dlib.indiana.edu/iudl/">
        </mets:file>
      <mets:file ID="CAE4142-07-archive" GROUPID="CAE4142-07" MIMETYPE="image/tif" SEQ="7"
        CREATED="2004-07-22T14:00:00" USE="archive">
        <mets:FLocat LOCTYPE="PURL" xlink:href="http://purl.dlib.indiana.edu/iudl/">
        </mets:file>
      <mets:file ID="CAE4142-08-archive" GROUPID="CAE4142-08" MIMETYPE="image/tif" SEQ="8"
        CREATED="2004-07-22T14:00:00" USE="archive">
        <mets:FLocat LOCTYPE="PURL" xlink:href="http://purl.dlib.indiana.edu/iudl/">
        </mets:file>
      <mets:file ID="CAE4142-09-archive" GROUPID="CAE4142-09" MIMETYPE="image/tif" SEQ="9"
        CREATED="2004-07-22T14:00:00" USE="archive">
```

```
<mets:FLocat LOCTYPE="PURL" xlink:href="http://purl.dlib.indiana.edu/iudl/" />
</mets:file>
<mets:file ID="CAE4142-10-archive" GROUPID="CAE4142-10" MIMETYPE="image/tif"
  SEQ="10" CREATED="2004-07-22T14:00:00" USE="archive">
  <mets:FLocat LOCTYPE="PURL" xlink:href="http://purl.dlib.indiana.edu/iudl/" />
</mets:file>
<mets:file ID="CAE4142-11-archive" GROUPID="CAE4142-11" MIMETYPE="image/tif"
  SEQ="11" CREATED="2004-07-22T14:00:00" USE="archive">
  <mets:FLocat LOCTYPE="PURL" xlink:href="http://purl.dlib.indiana.edu/iudl/" />
</mets:file>
<mets:file ID="CAE4142-12-archive" GROUPID="CAE4142-12" MIMETYPE="image/tif"
  SEQ="12" CREATED="2004-07-22T14:00:00" USE="archive">
  <mets:FLocat LOCTYPE="PURL" xlink:href="http://purl.dlib.indiana.edu/iudl/" />
</mets:file>
<mets:file ID="CAE4142-13-archive" GROUPID="CAE4142-13" MIMETYPE="image/tif"
  SEQ="13" CREATED="2004-07-22T14:00:00" USE="archive">
  <mets:FLocat LOCTYPE="PURL" xlink:href="http://purl.dlib.indiana.edu/iudl/" />
</mets:file>
<mets:file ID="CAE4142-14-archive" GROUPID="CAE4142-14" MIMETYPE="image/tif"
  SEQ="14" CREATED="2004-07-22T14:00:00" USE="archive">
  <mets:FLocat LOCTYPE="PURL" xlink:href="http://purl.dlib.indiana.edu/iudl/" />
</mets:file>
</mets:fileGrp>
<mets:fileGrp USE="full">
  <mets:file ID="CAE4142-01-full" GROUPID="CAE4142-01" MIMETYPE="image/gif" SEQ="1"
    CREATED="2004-07-22T14:00:00" USE="full">
    <mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-01-full.gif" />
  </mets:file>
  <mets:file ID="CAE4142-02-full" GROUPID="CAE4142-02" MIMETYPE="image/gif" SEQ="2"
    CREATED="2004-07-22T14:00:00" USE="full">
    <mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-02-full.gif" />
  </mets:file>
  <mets:file ID="CAE4142-03-full" GROUPID="CAE4142-03" MIMETYPE="image/gif" SEQ="3"
    CREATED="2004-07-22T14:00:00" USE="full">
    <mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-03-full.gif" />
  </mets:file>
  <mets:file ID="CAE4142-04-full" GROUPID="CAE4142-04" MIMETYPE="image/gif" SEQ="4"
    CREATED="2004-07-22T14:00:00" USE="full">
    <mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-04-full.gif" />
  </mets:file>
  <mets:file ID="CAE4142-05-full" GROUPID="CAE4142-05" MIMETYPE="image/gif" SEQ="5"
    CREATED="2004-07-22T14:00:00" USE="full">
    <mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-05-full.gif" />
  </mets:file>
  <mets:file ID="CAE4142-06-full" GROUPID="CAE4142-06" MIMETYPE="image/gif" SEQ="6"
    CREATED="2004-07-22T14:00:00" USE="full">
    <mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-06-full.gif" />
  </mets:file>
  <mets:file ID="CAE4142-07-full" GROUPID="CAE4142-07" MIMETYPE="image/gif" SEQ="7"
    CREATED="2004-07-22T14:00:00" USE="full">
    <mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-07-full.gif" />
  </mets:file>
  <mets:file ID="CAE4142-08-full" GROUPID="CAE4142-08" MIMETYPE="image/gif" SEQ="8"
    CREATED="2004-07-22T14:00:00" USE="full">
```

<mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-08-full.gif"/>
</mets:file>
<mets:file ID="CAE4142-09-full" GROUPID="CAE4142-09" MIMETYPE="image/gif" SEQ="9"
CREATED="2004-07-22T14:00:00" USE="full">
<mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-09-full.gif"/>
</mets:file>
<mets:file ID="CAE4142-10-full" GROUPID="CAE4142-10" MIMETYPE="image/gif" SEQ="10"
CREATED="2004-07-22T14:00:00" USE="full">
<mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-10-full.gif"/>
</mets:file>
<mets:file ID="CAE4142-11-full" GROUPID="CAE4142-11" MIMETYPE="image/gif" SEQ="11"
CREATED="2004-07-22T14:00:00" USE="full">
<mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-11-full.gif"/>
</mets:file>
<mets:file ID="CAE4142-12-full" GROUPID="CAE4142-12" MIMETYPE="image/gif" SEQ="12"
CREATED="2004-07-22T14:00:00" USE="full">
<mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-12-full.gif"/>
</mets:file>
<mets:file ID="CAE4142-13-full" GROUPID="CAE4142-13" MIMETYPE="image/gif" SEQ="13"
CREATED="2004-07-22T14:00:00" USE="full">
<mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-13-full.gif"/>
</mets:file>
<mets:file ID="CAE4142-14-full" GROUPID="CAE4142-14" MIMETYPE="image/gif" SEQ="14"
CREATED="2004-07-22T14:00:00" USE="full">
<mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-14-full.gif"/>
</mets:file>
</mets:fileGrp>
<mets:fileGrp USE="screen">
<mets:file ID="CAE4142-01-screen" GROUPID="CAE4142-01" MIMETYPE="image/gif" SEQ="1"
CREATED="2004-07-22T14:00:00" USE="screen">
<mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-01-screen.gif"/>
</mets:file>
<mets:file ID="CAE4142-02-screen" GROUPID="CAE4142-02" MIMETYPE="image/gif" SEQ="2"
CREATED="2004-07-22T14:00:00" USE="screen">
<mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-02-screen.gif"/>
</mets:file>
<mets:file ID="CAE4142-03-screen" GROUPID="CAE4142-03" MIMETYPE="image/gif" SEQ="3"
CREATED="2004-07-22T14:00:00" USE="screen">
<mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-03-screen.gif"/>
</mets:file>
<mets:file ID="CAE4142-04-screen" GROUPID="CAE4142-04" MIMETYPE="image/gif" SEQ="4"
CREATED="2004-07-22T14:00:00" USE="screen">
<mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-04-screen.gif"/>
</mets:file>
<mets:file ID="CAE4142-05-screen" GROUPID="CAE4142-05" MIMETYPE="image/gif" SEQ="5"
CREATED="2004-07-22T14:00:00" USE="screen">
<mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-05-screen.gif"/>
</mets:file>
<mets:file ID="CAE4142-06-screen" GROUPID="CAE4142-06" MIMETYPE="image/gif" SEQ="6"
CREATED="2004-07-22T14:00:00" USE="screen">


```

    <mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-06-screen.gif"/>
  </mets:file>
  <mets:file ID="CAE4142-07-screen" GROUPID="CAE4142-07" MIMETYPE="image/gif" SEQ="7"
    CREATED="2004-07-22T14:00:00" USE="screen">
    <mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-07-screen.gif"/>
    </mets:file>
    <mets:file ID="CAE4142-08-screen" GROUPID="CAE4142-08" MIMETYPE="image/gif" SEQ="8"
      CREATED="2004-07-22T14:00:00" USE="screen">
      <mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-08-screen.gif"/>
      </mets:file>
      <mets:file ID="CAE4142-09-screen" GROUPID="CAE4142-09" MIMETYPE="image/gif" SEQ="9"
        CREATED="2004-07-22T14:00:00" USE="screen">
        <mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-09-screen.gif"/>
        </mets:file>
        <mets:file ID="CAE4142-10-screen" GROUPID="CAE4142-10" MIMETYPE="image/gif" SEQ="10"
          CREATED="2004-07-22T14:00:00" USE="screen">
          <mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-10-screen.gif"/>
          </mets:file>
          <mets:file ID="CAE4142-11-screen" GROUPID="CAE4142-11" MIMETYPE="image/gif" SEQ="11"
            CREATED="2004-07-22T14:00:00" USE="screen">
            <mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-11-screen.gif"/>
            </mets:file>
            <mets:file ID="CAE4142-12-screen" GROUPID="CAE4142-12" MIMETYPE="image/gif" SEQ="12"
              CREATED="2004-07-22T14:00:00" USE="screen">
              <mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-12-screen.gif"/>
              </mets:file>
              <mets:file ID="CAE4142-13-screen" GROUPID="CAE4142-13" MIMETYPE="image/gif" SEQ="13"
                CREATED="2004-07-22T14:00:00" USE="screen">
                <mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-13-screen.gif"/>
                </mets:file>
                <mets:file ID="CAE4142-14-screen" GROUPID="CAE4142-14" MIMETYPE="image/gif" SEQ="14"
                  CREATED="2004-07-22T14:00:00" USE="screen">
                  <mets:FLocat LOCTYPE="PURL"
xlink:href="http://purl.dlib.indiana.edu/iudl/brittlebooks/page/CAE4142-14-screen.gif"/>
                  </mets:file>
                </mets:fileGrp>
              </mets:fileGrp>
            </mets:fileSec>
          <mets:structMap TYPE="physical">
            <mets:div ORDER="1" LABEL="Foster, B. O. Propertiana / by Benjamin Oliver Foster. [s.l. : Stanford
University], 1911.">
              <mets:div ORDER="1" TYPE="page">
                <mets:fptr FILEID="CAE4142-01-archive"/>
                <mets:fptr FILEID="CAE4142-01-full"/>
                <mets:fptr FILEID="CAE4142-01-screen"/>
              </mets:div>
              <mets:div ORDER="2" TYPE="page">
                <mets:fptr FILEID="CAE4142-02-archive"/>
                <mets:fptr FILEID="CAE4142-02-full"/>
                <mets:fptr FILEID="CAE4142-02-screen"/>
              </mets:div>
              <mets:div ORDER="3" TYPE="page">
                <mets:fptr FILEID="CAE4142-03-archive"/>
                <mets:fptr FILEID="CAE4142-03-full"/>
              </mets:div>
            </mets:div>
          </mets:structMap>
        </mets:div>
      </mets:file>
    </mets:fileGrp>
  </mets:fileSec>
</mets:structMap>

```

```
<mets:fptr FILEID="CAE4142-03-screen"/>
</mets:div>
<mets:div ORDER="4" TYPE="page" ORDERLABEL="100">
  <mets:fptr FILEID="CAE4142-04-archive"/>
  <mets:fptr FILEID="CAE4142-04-full"/>
  <mets:fptr FILEID="CAE4142-04-screen"/>
</mets:div>
<mets:div ORDER="5" TYPE="page" ORDERLABEL="101">
  <mets:fptr FILEID="CAE4142-05-archive"/>
  <mets:fptr FILEID="CAE4142-05-full"/>
  <mets:fptr FILEID="CAE4142-05-screen"/>
</mets:div>
<mets:div ORDER="6" TYPE="page" ORDERLABEL="102">
  <mets:fptr FILEID="CAE4142-06-archive"/>
  <mets:fptr FILEID="CAE4142-06-full"/>
  <mets:fptr FILEID="CAE4142-06-screen"/>
</mets:div>
<mets:div ORDER="7" TYPE="page" ORDERLABEL="103">
  <mets:fptr FILEID="CAE4142-07-archive"/>
  <mets:fptr FILEID="CAE4142-07-full"/>
  <mets:fptr FILEID="CAE4142-07-screen"/>
</mets:div>
<mets:div ORDER="8" TYPE="page" ORDERLABEL="104">
  <mets:fptr FILEID="CAE4142-08-archive"/>
  <mets:fptr FILEID="CAE4142-08-full"/>
  <mets:fptr FILEID="CAE4142-08-screen"/>
</mets:div>
<mets:div ORDER="9" TYPE="page" ORDERLABEL="105">
  <mets:fptr FILEID="CAE4142-09-archive"/>
  <mets:fptr FILEID="CAE4142-09-full"/>
  <mets:fptr FILEID="CAE4142-09-screen"/>
</mets:div>
<mets:div ORDER="10" TYPE="page" ORDERLABEL="106">
  <mets:fptr FILEID="CAE4142-10-archive"/>
  <mets:fptr FILEID="CAE4142-10-full"/>
  <mets:fptr FILEID="CAE4142-10-screen"/>
</mets:div>
<mets:div ORDER="11" TYPE="page" ORDERLABEL="107">
  <mets:fptr FILEID="CAE4142-11-archive"/>
  <mets:fptr FILEID="CAE4142-11-full"/>
  <mets:fptr FILEID="CAE4142-11-screen"/>
</mets:div>
<mets:div ORDER="12" TYPE="page" ORDERLABEL="108">
  <mets:fptr FILEID="CAE4142-12-archive"/>
  <mets:fptr FILEID="CAE4142-12-full"/>
  <mets:fptr FILEID="CAE4142-12-screen"/>
</mets:div>
<mets:div ORDER="13" TYPE="page" ORDERLABEL="109">
  <mets:fptr FILEID="CAE4142-13-archive"/>
  <mets:fptr FILEID="CAE4142-13-full"/>
  <mets:fptr FILEID="CAE4142-13-screen"/>
</mets:div>
<mets:div ORDER="14" TYPE="page" ORDERLABEL="110">
  <mets:fptr FILEID="CAE4142-14-archive"/>
  <mets:fptr FILEID="CAE4142-14-full"/>
  <mets:fptr FILEID="CAE4142-14-screen"/>
</mets:div>
</mets:div>
</mets:structMap>
<mets:structMap TYPE="logical">
  <mets:div ORDER="1" LABEL="Foster, B. O. Propertiana / by Benjamin Oliver Foster. [s.l. : Stanford
University], 1911.">
```

```
<mets:div ORDER="1" TYPE="frontmatter" LABEL="Front Matter">
  <mets:div ORDER="1" TYPE="cover" LABEL="Cover">
    <mets:div ORDER="1" TYPE="page">
      <mets:fptr FILEID="CAE4142-01-archive"/>
      <mets:fptr FILEID="CAE4142-01-full"/>
      <mets:fptr FILEID="CAE4142-01-screen"/>
    </mets:div>
  </mets:div>
  <mets:div ORDER="2" TYPE="blank">
    <mets:div ORDER="1" TYPE="page">
      <mets:fptr FILEID="CAE4142-02-archive"/>
      <mets:fptr FILEID="CAE4142-02-full"/>
      <mets:fptr FILEID="CAE4142-02-screen"/>
    </mets:div>
    <mets:div ORDER="2" TYPE="page">
      <mets:fptr FILEID="CAE4142-03-archive"/>
      <mets:fptr FILEID="CAE4142-03-full"/>
      <mets:fptr FILEID="CAE4142-03-screen"/>
    </mets:div>
  </mets:div>
</mets:div>
<mets:div ORDER="2" TYPE="body" LABEL="Body">
  <mets:div ORDER="1" TYPE="page" ORDERLABEL="100">
    <mets:fptr FILEID="CAE4142-04-archive"/>
    <mets:fptr FILEID="CAE4142-04-full"/>
    <mets:fptr FILEID="CAE4142-04-screen"/>
  </mets:div>
  <mets:div ORDER="2" TYPE="page" ORDERLABEL="101">
    <mets:fptr FILEID="CAE4142-05-archive"/>
    <mets:fptr FILEID="CAE4142-05-full"/>
    <mets:fptr FILEID="CAE4142-05-screen"/>
  </mets:div>
  <mets:div ORDER="3" TYPE="page" ORDERLABEL="102">
    <mets:fptr FILEID="CAE4142-06-archive"/>
    <mets:fptr FILEID="CAE4142-06-full"/>
    <mets:fptr FILEID="CAE4142-06-screen"/>
  </mets:div>
  <mets:div ORDER="4" TYPE="page" ORDERLABEL="103">
    <mets:fptr FILEID="CAE4142-07-archive"/>
    <mets:fptr FILEID="CAE4142-07-full"/>
    <mets:fptr FILEID="CAE4142-07-screen"/>
  </mets:div>
  <mets:div ORDER="5" TYPE="page" ORDERLABEL="104">
    <mets:fptr FILEID="CAE4142-08-archive"/>
    <mets:fptr FILEID="CAE4142-08-full"/>
    <mets:fptr FILEID="CAE4142-08-screen"/>
  </mets:div>
  <mets:div ORDER="6" TYPE="page" ORDERLABEL="105">
    <mets:fptr FILEID="CAE4142-09-archive"/>
    <mets:fptr FILEID="CAE4142-09-full"/>
    <mets:fptr FILEID="CAE4142-09-screen"/>
  </mets:div>
  <mets:div ORDER="7" TYPE="page" ORDERLABEL="106">
    <mets:fptr FILEID="CAE4142-10-archive"/>
    <mets:fptr FILEID="CAE4142-10-full"/>
    <mets:fptr FILEID="CAE4142-10-screen"/>
  </mets:div>
  <mets:div ORDER="8" TYPE="page" ORDERLABEL="107">
    <mets:fptr FILEID="CAE4142-11-archive"/>
    <mets:fptr FILEID="CAE4142-11-full"/>
    <mets:fptr FILEID="CAE4142-11-screen"/>
  </mets:div>
</mets:div>
```

```
<mets:div ORDER="9" TYPE="page" ORDERLABEL="108">
  <mets:fptr FILEID="CAE4142-12-archive"/>
  <mets:fptr FILEID="CAE4142-12-full"/>
  <mets:fptr FILEID="CAE4142-12-screen"/>
</mets:div>
<mets:div ORDER="10" TYPE="page" ORDERLABEL="109">
  <mets:fptr FILEID="CAE4142-13-archive"/>
  <mets:fptr FILEID="CAE4142-13-full"/>
  <mets:fptr FILEID="CAE4142-13-screen"/>
</mets:div>
<mets:div ORDER="11" TYPE="page" ORDERLABEL="110">
  <mets:fptr FILEID="CAE4142-14-archive"/>
  <mets:fptr FILEID="CAE4142-14-full"/>
  <mets:fptr FILEID="CAE4142-14-screen"/>
</mets:div>
</mets:div>
</mets:div>
</mets:structMap>
</mets:mets>
```

Sample VRA Core record

The following data sets describe an etching in a museum collection and a digital image of the etching.

Record Type = work

Type = print

Title = This is how it happened

Title.Variant = As Sucedi

Measurements.Dimensions = 24.5 x 35 cm

Material.Medium = ink

Material.Support = paper

Technique = etching

Technique = drypoint

Creator.Personal Name = Francisco Jose de Goya y Lucientes

Creator.Role = printmaker

Date.Creation = ca. 1810-1814

Location.Current Repository = Ann Arbor (MI,USA), University of Michigan
Museum of Art

Location.Creation Site = Madrid (ESP)

ID Number. Current Accession = 1977/2.15

Style/Period = Romanticism

Culture = Spanish

Subject = war

Relation.Part of = Part of Disasters of war

Description = This is how it happened is No. 47 (33) from the series "The Disasters of War", 4th edition, plates for the series ca. 1810-14, 1820, 4th edition was published 1906.

Rights = Weber family trust

Record Type = image

Type = digital

Title = general view

Measurements.Dimensions = 72 dpi

Measurements.Format = jpeg

Technique = scanning

Creator = Fred Technician

Date.Creation = 1999

Location.Current Repository = Ann Arbor (MI,USA), University of Michigan
Museum of Art

ID Number.Current Repository = PCD5010-1611-1037-27

ID Number.Current Repository = 1977_2.15.jpeg

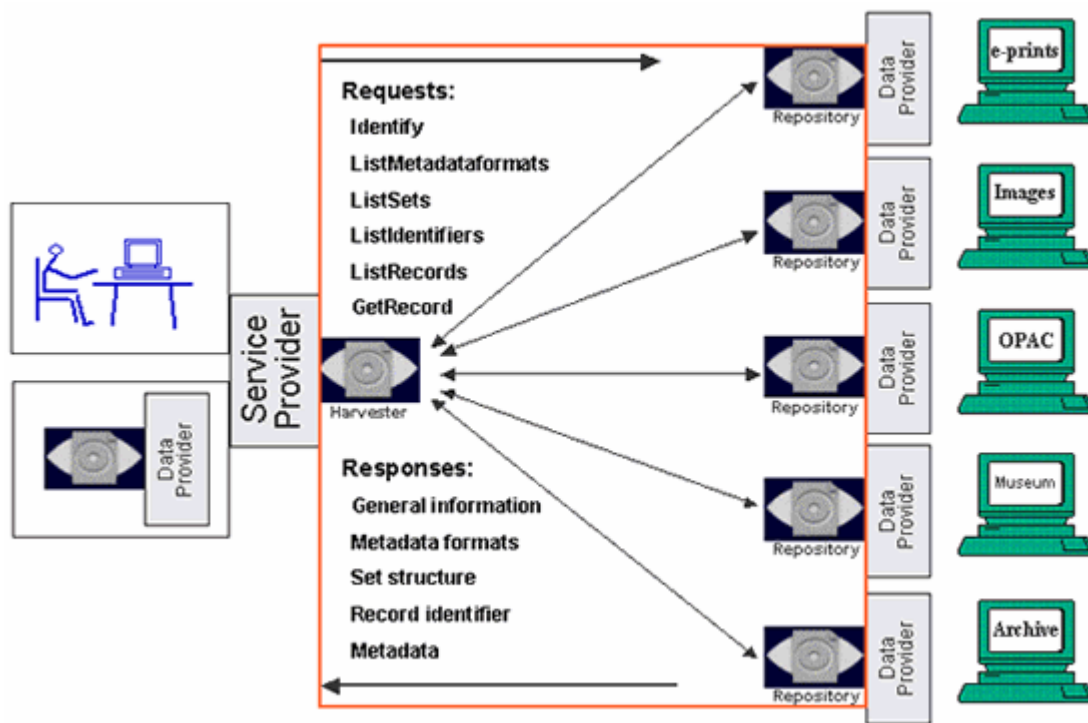
Description = For more information, see

http://www.si.umich.edu/Art_History/demoarea/details/1977_2.15.html

Source = University of Michigan Museum of Art

Rights = University of Michigan Museum of Art

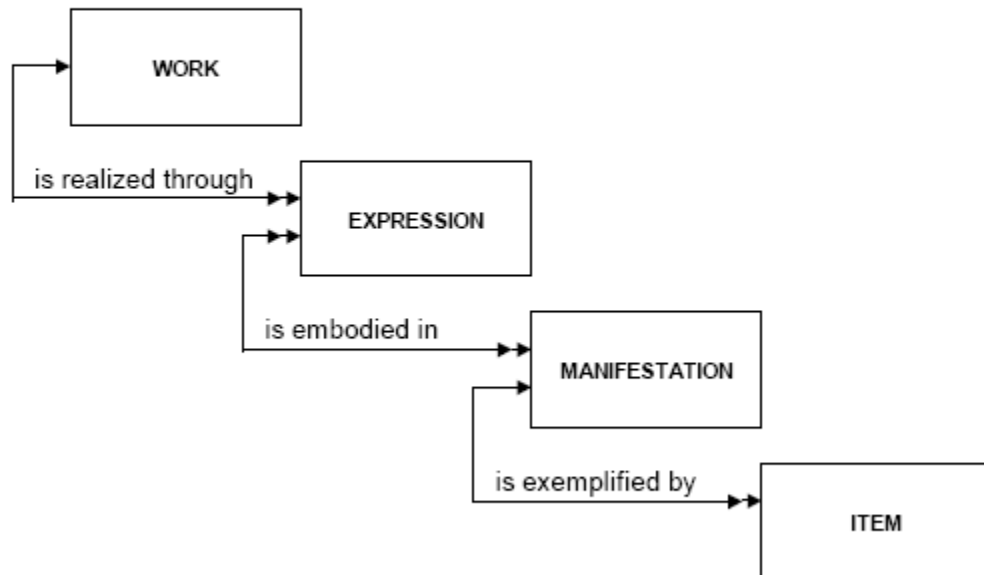
Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH)



*Graphic from the OAI Forum Tutorial
<<http://www.oaforum.org/tutorial/english/page3.htm>>

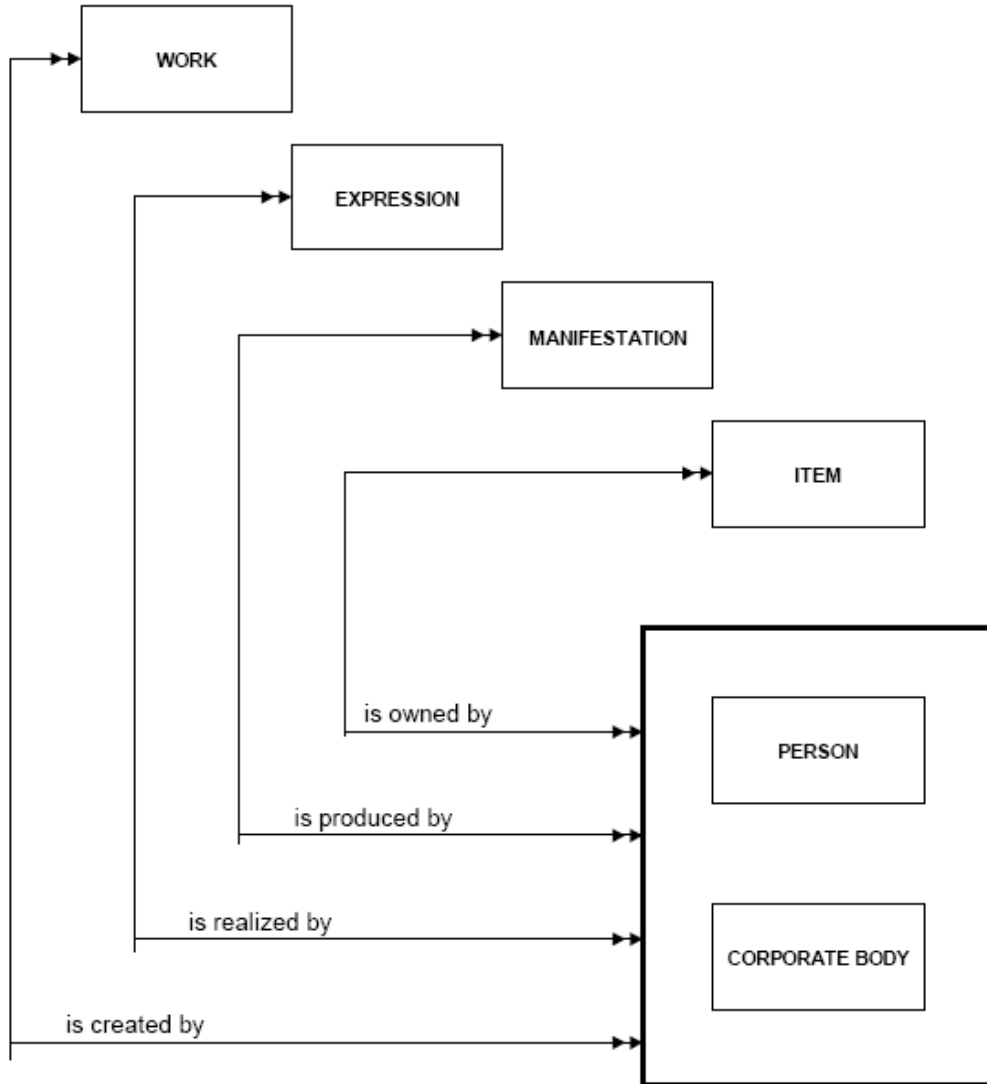
FRBR Group 1 Entities: Products of intellectual & artistic endeavor

Figure 3.1: Group 1 Entities and Primary Relationships



FRBR Group 2 Entities: Those responsible for intellectual & artistic content

Figure 3.2: Group 2 Entities and “Responsibility” Relationships



FRBR Group 3 Entities: Subjects of works

Figure 3.3: Group 3 Entities and “Subject” Relationships

