Contributing Usage Data (Paradata) and Annotations to the NSDL

April 2011
Topic Outline

• Annotation versus paradata
• Collection procedure and collection metadata
• Annotation: Item-level metadata
• Paradata: Item-level metadata
• Strategy for creating paradata/ annotations
• Sharing paradata/annotations
• Seeing paradata/annotations at NSDL.org
Annotation versus Paradata

**Annotation**
- Information that provides additional understanding, context or description for a resource
- *Examples:*
  - Educational standards
  - How something is used pedagogically
  - Comments
  - Teaching tips
  - Related resources

**Paradata**
- Information on the use of a resource; may be sorted by audience, education level, date
- *Examples:*
  - Tagged with these words
  - Favorited
  - Subscribed too
  - Viewed
  - Rated
Follow NSDL Collection Procedure

- Provide collection-level metadata (next slide)
- Provide item-level metadata in *comm_para* or *comm_anno* format
- Collection logo (100 pixels wide by 30 pixels tall)
- OAI base URL (and set specs if applicable)
- NCS is an option to make paradata
- NAB review required for annotation but not for paradata (at this time)
- Do not mix the metadata formats in OAI
Collection-Level Metadata

- Title of collection
- Contacts (responsible party & tech person)
- Description
- Education level
- Audience
- Right & access rights
- URL of the collection if one exists

Send this info, logo & OAI info to http://www.nsdl.org/about/contactus/
Annotation: Item-Level Metadata

• Use the comm_anno XML metadata format
• Know URL in NSDL to which annotation applies
• Determine type of annotation data (text, URL, rating or standard)
• Determine kind of data within each type (e.g. teaching tip, review, comment for text data or related resource for URL data)
• Determine if you want to include who made the annotation and whether this name should be shared (in user interfaces)
Annotations for Global Sun Temperature Project

Be sure to cover the concept of the XXX before using this resource. It will help students understand the difference between ZZZZZZ.

url type="Related image">http://a.link.toa/image</url>

contributor role="Author" date="2006-04-13" share="true">
  <person>
    <nameTitle>Dr</nameTitle>
    <nameFirst>Joe</nameFirst>
    <nameLast>Whoever</nameLast>
    <instName>ABC University</instName>
    <email>some@person.org</email>
    <userID type="NSDL">oranges</userID>
    <userID type="Facebook">XX45b00</userID>
  </person>
</contributor>
</contributors>
</comm_anno>
NSDL Strategy for Annotation Creation

- Make separate records when annotations are
  - collected on different dates
  - by different annotators
  - the same annotation type (e.g. comment)

<table>
<thead>
<tr>
<th></th>
<th>Record 1</th>
<th>Record 2</th>
<th>Record 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>2011-01-01</td>
<td>2011-01-01</td>
<td>2011-01-01</td>
</tr>
<tr>
<td>Author</td>
<td>Joe</td>
<td>Joe</td>
<td>Anne</td>
</tr>
<tr>
<td>Comment</td>
<td>Great!</td>
<td>Use for xxx</td>
<td>Good!</td>
</tr>
<tr>
<td>Standard</td>
<td>blah</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Annotation Sample XML Records

http://ns.nsdl.org/ncs/comm_anno/1.00/records/

XML Schema for comm_anno

http://ns.nsdl.org/ncs/comm_anno/1.00/schemas/comm_anno.xsd

• Contains all the definitions for all metadata fields and controlled vocabs
• Contains the links to the controlled vocabularies for integer, string, rank, vote and rating
Paradata: Item-Level Metadata

- Use the comm_para XML metadata format
- Know URL in NSDL to which usage data applies
- Determine type of usage data (integer, string, rank, vote or rating)
- Determine kind of data within each type (e.g. viewed, favorited for integer data)
- Determine if usage data is summative from X point forward or applies to only a certain time period like a week
- Determine if want to sort usage data by audience, ed level, subject or no sorting
Paradata Integer Data: number of times...

- **awarded** - the resource has been given an honor or special recognition that is important to a particular community
- **cited** - the resource has been referenced in a bibliographic sense by another resource
- **commented** - the resource has notes, remarks or explanations that express opinions or attitudes about the resource
- **correlated** - the resource has been aligned or associated with educational standards or some concept that further describes the resource
- **downloaded** - the resource has been interacted with (fully accessed); that is, the user either watched the video, downloaded the object or saved as a local copy
- **embedded** - the resource has been included in curriculum/unit or other learning experience
- **favorited** - the resource has been foldered, bookmarked, playlisted, added or favorited to a user's personal list *
- **featured** - the resource has been featured, highlighted or displayed in a unique or special way (could include awards)
- **linkedFrom** - the resource has been linked to from other resources or webpages
- **rated** - the resource has judged on a numerical scale
- **ranked** - the resource has been ranked (positioned) in a numerical hierarchy
- **recommended** - the resource has been added/suggested to a specific community group in which the user may or may not be a member *
- **relatedTo** - the resource has been associated with other resources
- **modified** - the resource has been reused, added to, changed, enhanced to create a new resource
- **tagged** - the resource has been associated with keywords, concepts or a phrase *
- **viewed** - the resource has been either clicked on or looked at*
- **voted** - the resource has received either a positive or negative responses from users
- **subscribed** - the resource has is being followed or watched by users in order to receive update/change information about the resource
**String Data:** text to associate

- commented - a note or remark explaining, illustrating or expressing an opinion on the resource
- tagged - the resource has been associated with keywords, concepts or phrase

**Rank Data:** position in a hierarchy

- best - the resource demonstrates a degree of good or excellence
- most - the resource demonstrates the greatest in quantity, extent or degree

**Rating Data:** # of times rated on a scale

- star - an indication of quality about the resource
- usability - an indication of how useful the resource is in a given context

**Vote Data:** thumbs up/ down indication

- like - to be agreeable to
- useful - to be suitable for a specified situation or activity
- useInClassroom - is appropriate to use in the classroom
Paradata for 'The Capacity of the Planets'

This record contains paradata for the resource 'The Capacity of the Planets'

Global warming: 5

Usability: 3.5

Useful: 7 positive, 1 negative

Top Ten Visited Sites: 1 to 10
NSDL Strategy for Paradata Creation

- Make only one record for each resource and have it start at time X and summarize from that time forward (i.e. running total)

<table>
<thead>
<tr>
<th></th>
<th>Record 1</th>
<th>Record 1 (updated)</th>
<th>Record 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>2011-01-01</td>
<td>2011-02-02</td>
<td>2011-02-02</td>
</tr>
<tr>
<td>Resource</td>
<td>Tigers</td>
<td>Tigers</td>
<td>Bears</td>
</tr>
<tr>
<td>Tagged by High School Students</td>
<td>9</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>Tagged by High School Educators</td>
<td>6</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Rating (no audience or ed level)</td>
<td>4</td>
<td>4.5</td>
<td></td>
</tr>
</tbody>
</table>
Paradata Sample XML Record

http://ns.nsdl.org/ncs/comm_para/1.00/records/

XML Schema for comm_para

http://ns.nsdl.org/ncs/comm_para/1.00/schemas/comm_para.xsd

- Contains all the definitions for all metadata fields and controlled vocabs
- Contains the links to the controlled vocabularies for integer, string, rank, vote and rating
Will NSDL Share Paradata/Annotations?

- NSDL is not collecting from NSDL.org yet
- NSDL is tracking information through Google Analytics (GA)
- NSDL is undecided if such collections will be available for OAI harvesting like resource collections
See Annotiations & Paradata at NSDL.org

- Search for Global Sun
- Look at the 3rd resource in the search results.
- Click on the View tips, comments or standards
- This is displaying annotation information
- Usage data (paradata) will be added here