

Contributing Usage Data (Paradata) and Annotations to the NSDL

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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.nsdI.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)

Annotation

```
<?xml version="1.0" encoding="UTF-8"?>
<comm_anno xsi:schemaLocation="http://ns.nsd.org/ncs/comm_anno http://ns.nsd.org/ncs/comm_anno/
1.00/schemas/comm_anno.xsd" xmlns="http://ns.nsd.org/ncs/comm_anno" xmlns:xsi="http://
www.w3.org/2001/XMLSchema-instance">
  <recordID>ANNO-000-000-000-001</recordID>
  <date created="2004-11-24"/>
  <annotatedID idType="URL">http://toa.resource.url</annotatedID>
  <title>Annotations for Global Sun Temperature Project</title>
  <ratingInfo>
    <rating min="1" max="5">5</rating>
  </ratingInfo>
  <text type="Teaching tip">Be sure to cover the concept of the XXX before using this resource. It
will help students understand the difference between ZZZZZ.</text>
  <url type="Related image">http://a.link.toa/image</url>
  <contributors>
    <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)

| | Record 1 | Record 2 | Record 3 |
|----------|------------|-------------|------------|
| Date | 2011-01-01 | 2011-01-01 | 2011-01-01 |
| Author | Joe | Joe | Anne |
| Comment | Great! | Use for xxx | Good! |
| Standard | blah | | |

Annotation Sample XML Records

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

XML Schema for comm_anno

http://ns.nsdI.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

```

<?xml version="1.0" encoding="UTF-8"?>
<commParadata xsi:schemaLocation="http://ns.nsd.org/ncs/comm_para http://ns.nsd.org/ncs/comm_para/1.00/schemas/comm_para.xsd"
xmlns="http://ns.nsd.org/ncs/comm_para" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <recordId catalog="NSDL">PARA-000-000-000-0001</recordId>
  <paradataTitle>
    <string language="en-us">Paradata for 'The Capacity of the Planets'</string>
    <string language="de">alternative language title</string>
  </paradataTitle>
  <paradataDescription>
    <string language="de">This record contains paradata for the resource 'The Capacity of the Planets'</string>
    <string language="en-us">Alternative language description</string>
  </paradataDescription>
  <usageDataReferenceURL>http://url.of.the/paradata</usageDataReferenceURL>
  <usageDataResourceURL>http://url.of.the/resource</usageDataResourceURL>
  <usageDataResourceIdentifier catalog="String">a local resource id (e.g. a catalog number)</usageDataResourceIdentifier>
  <usageDataProvidedForName>
    <string language="en-us">The Capacity of the Planets</string>
  </usageDataProvidedForName>

  <usageDataSummary>
    <integer type="favorited" audience="Student" edLevel="Grade 9" subject="Science" dateTimeStart="2001-12-17T09:30:47Z"
dateTimeEnd="2001-12-31T09:30:47Z">1</integer>

    <string type="tagged" dateTimeStart="2001-12-17T09:30:47Z" dateTimeEnd="2001-12-31T09:30:47Z" language="en-us" total="5">global
warming</string>

    <rating type="usability" audience="Educator" min="1" max="5" total="15" dateTimeStart="2001-12-17T09:30:47Z"
dateTimeEnd="2001-12-31T09:30:47Z" >3.50</rating>

    <vote type="useful" audience="General Public" positive="7" negative="1" dateTimeStart="2001-12-17T09:30:47Z"
dateTimeEnd="2001-12-13T09:30:47Z"/>

    <rank type="most" name="Top Ten Visited Sites" best="1" worst="10" dateTimeStart="2001-12-17T09:30:47Z"
dateTimeEnd="2001-12-31T09:30:47Z" >4</rank>
  </usageDataSummary>
</commParadata>

```

Paradata

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)

| | Record 1 | Record 1 (updated) | Record 2 |
|----------------------------------|------------|-----------------------|------------|
| Date | 2011-01-01 | 2011-02-02 | 2011-02-02 |
| Resource | Tigers | Tigers | Bears |
| Tagged by High School Students | 9 | 15 | 3 |
| Tagged by High School Educators | 6 | 11 | 4 |
| Rating (no audience or ed level) | 4 | 4.5 | |

Paradata Sample XML Record

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

XML Schema for comm_para

http://ns.nsdsl.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 Annotations & 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