

**Personally Identifiable Information (PII)**

**And**

**Meta data Object Description Schema (MODS)**

## ***Abstract / Executive Summary***

The *Personally Identifiable Information* (PII) namespace provides a set of token elements to be used in bibliographic references. These tokens can be integrated into *Meta data Object Description Schema* (MODS) XML references to indicate the type and presence of private information contained in the original source work. MODS references can be collated and classified according to type and presence of this information, however, the actual information remains only in the source document and is restricted from view by normal access restrictions on the source. Since the source is unmodified, by, for example encryption, access restrictions are at the sole discretion of the Holder.

## ***Introduction***

The [PII namespace](#) provides a set of token elements to be used in bibliographic references, so that Personally Identifiable Information (PII) does not propagate as meta data via the reference itself. The content of the source document remains intact, for professional use by authorized users with access to the source documents.

Archival OpenDocumentFormat (ODF, ISO/IEC 26300:2006) XML qualifies as a "source" document, for although it can not be displayed directly, it can be transformed into XHTML, a web document.

Once introduced into MODS XML, the PII elements become part of MODS and therefore does not require a standalone METS Profile.

## **Methods**

A PII element is exposed as a MODS <extension>.

## **Types of PII**

<b>(text)</b>	<b>Description</b>	<b>Examples</b>
[aka]	Alias	Maiden Name, Pen Name, DBA, AKA etc.
[alpha]	Alphanumeric Identifier	SSN, Military Service ID, Postal Code etc.
[birth]	Circumstances of Birth	Age, Birthday, Place of Birth etc.
[bystander]	Affiliated Person Of	Spouse, In-Law, Friend, Acquaintance etc.
[car]	Asso. Personal Transportation	Car, Car License, Driver License etc.
[contact]	Contact Information	Telephone, IP Network, Geographic etc.
[death]	Circumstances of Death	Day, Place, Cause etc.
[dna]	Blood Relative Of	Blood Relative (see also:bystander)
[groups]	Group Affiliations Of	Group Membership, Professional Licenses etc.
[health]	Asso. Health Data	Genetic, Communicable, Chronic Disease etc.
[ice]	In Case of Emergency	Third-Party Contact Information
[location]	Asso. Location	Workplace, Network URL etc.
[marks]	Identifying Marks	Race, Gender, Tattoos, Scars etc.
[misc]	miscellaneous	None of the above
[money]	Asso. Financial Transaction	Bought, Sold, Payment Type etc.
[witness]	Asso. Public Event	Rode Public Transportation, Concert etc.

## Results

### PII Uniform Resource Locator's (URLs)

(text)	PURL	Link
[aka]	<a href="http://purl.org/pii/aka">http://purl.org/pii/aka</a>	<a href="http://www.RUSTPrivacy.org/2008/pii-history.html#aka-003">http://www.RUSTPrivacy.org/2008/pii-history.html#aka-003</a>
[alpha]	<a href="http://purl.org/pii/alpha">http://purl.org/pii/alpha</a>	<a href="http://www.RUSTPrivacy.org/2008/pii-history.html#alpha-003">http://www.RUSTPrivacy.org/2008/pii-history.html#alpha-003</a>
[birth]	<a href="http://purl.org/pii/birth">http://purl.org/pii/birth</a>	<a href="http://www.RUSTPrivacy.org/2008/pii-history.html#birth-003">http://www.RUSTPrivacy.org/2008/pii-history.html#birth-003</a>
[bystander]	<a href="http://purl.org/pii/bystander">http://purl.org/pii/bystander</a>	<a href="http://www.RUSTPrivacy.org/2008/pii-history.html#bystander-003">http://www.RUSTPrivacy.org/2008/pii-history.html#bystander-003</a>
[car]	<a href="http://purl.org/pii/car">http://purl.org/pii/car</a>	<a href="http://www.RUSTPrivacy.org/2008/pii-history.html#car-003">http://www.RUSTPrivacy.org/2008/pii-history.html#car-003</a>
[contact]	<a href="http://purl.org/pii/contact">http://purl.org/pii/contact</a>	<a href="http://www.RUSTPrivacy.org/2008/pii-history.html#contact-003">http://www.RUSTPrivacy.org/2008/pii-history.html#contact-003</a>
[death]	<a href="http://purl.org/pii/death">http://purl.org/pii/death</a>	<a href="http://www.RUSTPrivacy.org/2008/pii-history.html#death-003">http://www.RUSTPrivacy.org/2008/pii-history.html#death-003</a>
[dna]	<a href="http://purl.org/pii/dna">http://purl.org/pii/dna</a>	<a href="http://www.RUSTPrivacy.org/2008/pii-history.html#dna-003">http://www.RUSTPrivacy.org/2008/pii-history.html#dna-003</a>
[groups]	<a href="http://purl.org/pii/groups">http://purl.org/pii/groups</a>	<a href="http://www.RUSTPrivacy.org/2008/pii-history.html#groups-003">http://www.RUSTPrivacy.org/2008/pii-history.html#groups-003</a>
[health]	<a href="http://purl.org/pii/health">http://purl.org/pii/health</a>	<a href="http://www.RUSTPrivacy.org/2008/pii-history.html#health-003">http://www.RUSTPrivacy.org/2008/pii-history.html#health-003</a>
[ice]	<a href="http://purl.org/pii/ice">http://purl.org/pii/ice</a>	<a href="http://www.RUSTPrivacy.org/2008/pii-history.html#ice-003">http://www.RUSTPrivacy.org/2008/pii-history.html#ice-003</a>
[location]	<a href="http://purl.org/pii/location">http://purl.org/pii/location</a>	<a href="http://www.RUSTPrivacy.org/2008/pii-history.html#location-003">http://www.RUSTPrivacy.org/2008/pii-history.html#location-003</a>
[marks]	<a href="http://purl.org/pii/marks">http://purl.org/pii/marks</a>	<a href="http://www.RUSTPrivacy.org/2008/pii-history.html#marks-003">http://www.RUSTPrivacy.org/2008/pii-history.html#marks-003</a>
[misc]	<a href="http://purl.org/pii/misc">http://purl.org/pii/misc</a>	<a href="http://www.RUSTPrivacy.org/2008/pii-history.html#misc-002">http://www.RUSTPrivacy.org/2008/pii-history.html#misc-002</a>
[money]	<a href="http://purl.org/pii/money">http://purl.org/pii/money</a>	<a href="http://www.RUSTPrivacy.org/2008/pii-history.html#money-003">http://www.RUSTPrivacy.org/2008/pii-history.html#money-003</a>
[witness]	<a href="http://purl.org/pii/witness">http://purl.org/pii/witness</a>	<a href="http://www.RUSTPrivacy.org/2008/pii-history.html#witness-003">http://www.RUSTPrivacy.org/2008/pii-history.html#witness-003</a>

*Both Human-Readable and Resource Encoded Links are available.*

### Examples

```
<mods xmlns="http://www.loc.gov/mods/v3" xmlns:xlink="http://www.w3.org/1999/xlink">
  <extension xmlns:pii="http://purl.org/pii/terms/" >
    <pii:PII>
      <pii:location xlink:type="simple" xlink:href="http://purl.org/pii/terms/location" />
    </pii:PII>
  </extension>
  <extension xmlns:pii="http://purl.org/pii/terms/" >
    <pii:PII>
      <pii:location xlink:type="simple" xlink:href="http://www.rustprivacy.org/2008/pii-history.html#location-003" />
    </pii:PII>
  </extension>
</mods>
```

See Also: [RUSTPrivacy.org](http://www.rustprivacy.org) (general methods)

See Also: [PII.pdf](#) (the need to protect PII in documents)

See Also: [GRDDL.pdf](#) (the relation of PII elements to Dublin Core and The DC Abstract Model (DCAM))

## Common Errors

- The PII elements are empty. Any element with content fails validation.
- The names of the elements must be in the set. In this sense, the PII token elements are a "Controlled Vocabulary", but of so small a size that validation is feasible. More often than not, Controlled Vocabularies are so large that validation becomes a separate logistical issue aside from actual use of the vocabulary.

## ***Discussion***

- The tokens validate within a compound document – a XHTML 1.0 wrapper with sectioned <div> tags containing a MODS XML node-set. The <MODSCollection> wrapper is unnecessary, with the use of multiple sections (divisions). A wrapper written in OpenDocumentFormat (ODF) by OpenOffice, whence exported as XHTML has its own complement of meta data exposed as Dublin Core (DCMI) terms.
- The PII Schema is in Appendix A. Note that the <pii:misc> element is missing from the schema. One of the general conclusions with the design of the PII namespace was that this element's content served no further professional classification purpose – its use indicates possible conceptual, data modeling problems.
- The PII elements are a formal method for the redaction of Text Only at this point in time. This is the price paid for non-destructive methods of redaction, vis-a-vis the source. When the source is unmodified, the access authority resides solely with the Holder. By contrast, an encrypted source would have at least two access authorities, the Holder and the Encrypter.
- PII elements are empty of content, except in the source document. They proliferate and propagate empty of content. This is **Redact Unless Static Text (RUST)** behavior.
- A generalized XSLT for conversion of the compound document is given in Appendix B. This file transforms MODS data elements into an XHTML table listing the XPATH and content of the element. Thus for transformations to other formats such as Resource Description Framework (RDF) the “Top Level” MODS nodes can be treated individually, by modification of a single file.

# Meta Data

```
<?xml version="1.0" encoding="UTF-8"?>
<rdf:RDF
  xmlns:dctype="http://purl.org/dc/dcmitype/"
  xmlns:pii="http://purl.org/pii/terms/"
  xmlns:dc="http://purl.org/dc/elements/1.1/"
  xmlns:dcam="http://purl.org/dc/dcam/"
  xmlns:dcterms="http://purl.org/dc/terms/"
  xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  >
  <rdf:Description rdf:about="http://www.RUSTPrivacy.org/PIIandMODS.pdf">
    <dcterms:title xml:lang="en-US">
      Personally Identifiable Information (PII) And Meta data Object Description Schema (MODS)
    </dcterms:title>
    <dcterms:identifier>
      <rdf:Description>
        <rdf:value rdf:datatype="http://purl.org/dc/terms/URI">
          http://www.RUSTPrivacy.org/PIIandMODS.pdf
        </rdf:value>
      </rdf:Description>
    </dcterms:identifier>
    <dcterms:language>
      <rdf:Description>
        <rdf:value rdf:datatype="http://purl.org/dc/terms/RFC4646">
          en-US
        </rdf:value>
      </rdf:Description>
    </dcterms:language>
    <dcterms:source>
      OpenOffice.org/2.3
    </dcterms:source>
    <dcterms:creator>
      RUSTPrivacy.org
    </dcterms:creator>
    <dcterms:issued>
      <rdf:Description>
        <rdf:value rdf:datatype="http://purl.org/dc/terms/W3CDTF">
          2008-06-08T10:43:04
        </rdf:value>
      </rdf:Description>
    </dcterms:issued>
    <dcterms:contributor>
      Gannon J. Dick
    </dcterms:contributor>
    <dcterms:modified>
      <rdf:Description>
        <rdf:value rdf:datatype="http://purl.org/dc/terms/W3CDTF">
          2008-06-08T10:43:04
        </rdf:value>
      </rdf:Description>
    </dcterms:modified>
    <dcterms:provenance xml:lang="en-US">
      Printed By RUSTPrivacy.org on 2008-06-08 in en-US.
    </dcterms:provenance>
    <dcterms:subject xml:lang="en-US">
      Meta Data;
      OpenOffice 2.3;
      MODS 3.3;
      XHTML 1.0;
      Personally Identifiable Information (PII);
      Library Of Congress (LOC)
    </dcterms:subject>
    <dcterms:description xml:lang="en-US">
      The Personally Identifiable Information (PII) namespace provides a set
      of token elements to be used in bibliographic references. These tokens
      can be integrated into Meta data Object Description Schema (MODS) XML
      references to indicate the type and presence of private information
      contained in the original source work. MODS references can be collated
      and classified according to type and presence of this information, however,
      the actual information remains only in the source document and is restricted
      from view by normal access restrictions on the source. Since the source
      is unmodified, by, for example encryption, access restrictions are at
      the sole discretion of the Holder.
    </dcterms:description>
    <dcterms:rightsHolder>
      RUSTPrivacy.org
    </dcterms:rightsHolder>
    <dcterms:BibliographicResource>
      <rdf:Description rdf:about="http://purl.org/dc/terms/bibliographicCitation">
        <dcam:memberOf rdf:resource="http://purl.org/dc/terms/">
        <rdf:value rdf:datatype="http://www.w3.org/2001/XMLSchema#string" xml:lang="en-US">
          Dick, G.J., 2007. pii-history.html. RUSTPrivacy.org. Available at:http://www.RUSTPrivacy.org/2008/pii-history.html [Accessed June 8, 2008].
        </rdf:value>
      </rdf:Description>
    </dcterms:BibliographicResource>
    <dcterms:BibliographicResource>
      <rdf:Description rdf:about="http://purl.org/dc/terms/bibliographicCitation">
        <dcam:memberOf rdf:resource="http://purl.org/dc/terms/">
        <rdf:value rdf:datatype="http://www.w3.org/2001/XMLSchema#string" xml:lang="en-US">
          Dick, G.J., 2007. index.html. RUSTPrivacy.org. Available at:http://www.RUSTPrivacy.org/ [Accessed June 8, 2008].
        </rdf:value>
      </rdf:Description>
    </dcterms:BibliographicResource>
    <dcterms:BibliographicResource>
      <rdf:Description rdf:about="http://purl.org/dc/terms/bibliographicCitation">
        <dcam:memberOf rdf:resource="http://purl.org/dc/terms/">
        <rdf:value rdf:datatype="http://www.w3.org/2001/XMLSchema#string" xml:lang="en-US">
          Dick, G.J., 2007. PII.pdf (application/pdf Object). RUSTPrivacy.org. Available at:http://www.RUSTPrivacy.org/PII.pdf [Accessed June 8, 2008].
        </rdf:value>
      </rdf:Description>
    </dcterms:BibliographicResource>
    <dcterms:BibliographicResource>
      <rdf:Description rdf:about="http://purl.org/dc/terms/bibliographicCitation">
        <dcam:memberOf rdf:resource="http://purl.org/dc/terms/">
        <rdf:value rdf:datatype="http://www.w3.org/2001/XMLSchema#string" xml:lang="en-US">
          Dick, G.J., 2008. GRDDL.pdf (application/pdf Object). RUSTPrivacy.org. Available at:http://www.RUSTPrivacy.org/GRDDL.pdf [Accessed June 8, 2008].
        </rdf:value>
      </rdf:Description>
    </dcterms:BibliographicResource>
  </rdf:Description>
</rdf:RDF>
```



## Appendix A

```
<!-- PII XSD Schema -->
<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema
  targetNamespace="http://purl.org/pii/terms/"
  xmlns:pii="http://purl.org/pii/terms/"
  xmlns:xlink="http://www.w3.org/1999/xlink"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  elementFormDefault="qualified"
  attributeFormDefault="unqualified">

<xsd:import namespace="http://www.w3.org/1999/xlink" schemaLocation="xlink.xsd" />

  <xsd:element name="PII" type="pii:piiType" />

  <xsd:complexType name="piiType">
    <xsd:choice>
      <xsd:element name="aka" xsi:nil="true" />
      <xsd:element name="alpha" xsi:nil="true" />
      <xsd:element name="birth" xsi:nil="true" />
      <xsd:element name="bystander" xsi:nil="true" />
      <xsd:element name="car" xsi:nil="true" />
      <xsd:element name="contact" xsi:nil="true" />
      <xsd:element name="death" xsi:nil="true" />
      <xsd:element name="dna" xsi:nil="true" />
      <xsd:element name="groups" xsi:nil="true" />
      <xsd:element name="health" xsi:nil="true" />
      <xsd:element name="ice" xsi:nil="true" />
      <xsd:element name="location" xsi:nil="true" />
      <xsd:element name="marks" xsi:nil="true" />
      <xsd:element name="money" xsi:nil="true" />
      <xsd:element name="witness" xsi:nil="true" />
    </xsd:choice>
    <xsd:attributeGroup ref="xlink:simpleLink" />
  </xsd:complexType>
</xsd:schema>
```

## Appendix B

### (Master, "includes" #2)

```
<xsl:stylesheet
  xmlns:xsl  ="http://www.w3.org/1999/XSL/Transform" version="1.0"
  xmlns:mux  ="http://www.w3.org/1999/xhtml"
  xmlns      ="http://www.w3.org/1999/xhtml"
  xmlns:mods ="http://www.loc.gov/mods/v3"
  xmlns:xlink="http://www.w3.org/1999/xlink"
  xmlns:xsi  ="http://www.w3.org/2001/XMLSchema-instance"
  exclude-result-prefixes="#default mux mods xlink xsi">

<xsl:output method="xml" indent="yes" encoding="UTF-8" />

<xsl:include href="MODS.xsl" />

<xsl:template match="/">
  <xsl:apply-templates select="mux:html" />
</xsl:template>

<xsl:template match="mux:html">
  <xsl:copy>
    <xsl:attribute name="xsi:schemaLocation">http://www.w3.org/1999/xhtml ../../XSD/xhtml110-
mods33.xsd</xsl:attribute>
    <xsl:copy-of select="mux:head" />
    <xsl:apply-templates select="mux:body" />
  </xsl:copy>
</xsl:template>

<xsl:template match="mux:body">
  <xsl:copy>
    <xsl:apply-templates select="@*|node()" />
  </xsl:copy>
</xsl:template>

<xsl:template match="@*|node()">
  <xsl:copy>
    <xsl:apply-templates select="@*|node()" />
  </xsl:copy>
</xsl:template>
```

```
</xsl:stylesheet>

(MODS.xsl aka #2)

<xsl:stylesheet
  xmlns:xsl  ="http://www.w3.org/1999/XSL/Transform" version="1.0"
  xmlns:mux  ="http://www.w3.org/1999/xhtml"
  xmlns      ="http://www.w3.org/1999/xhtml"
  xmlns:mods ="http://www.loc.gov/mods/v3"
    xmlns:xlink="http://www.w3.org/1999/xlink"
    xmlns:pii  ="http://purl.org/pii/terms/"
    exclude-result-prefixes="#default mux mods xlink pii">

<xsl:output method="xml" indent="yes" encoding="UTF-8" />

<xsl:template match="mods:mods">
  <xsl:comment> MODS Ver. 3.3 </xsl:comment>
  <xsl:comment> Handled by the MODS.xsl Stylesheet </xsl:comment>
  <xsl:element name="table" namespace="http://www.w3.org/1999/xhtml">
    <xsl:element name="tr" namespace="http://www.w3.org/1999/xhtml">
      <xsl:element name="th" namespace="http://www.w3.org/1999/xhtml">
        MODS X-PATH
      </xsl:element>
      <xsl:element name="th" namespace="http://www.w3.org/1999/xhtml">
        Content
      </xsl:element>
    </xsl:element>

    <xsl:apply-templates />

  </xsl:element>
</xsl:template>

<!-- titleInfo -->
<xsl:template match="mods:titleInfo">
  <xsl:comment> titleInfo </xsl:comment>

  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:titleInfo/mods:title">
  <xsl:comment> title </xsl:comment>
```

```
<xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:titleInfo/mods:subTitle">
  <xsl:comment> subTitle </xsl:comment>

  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:titleInfo/mods:partNumber">
  <xsl:comment> partNumber </xsl:comment>

  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:titleInfo/mods:partName">
  <xsl:comment> partName </xsl:comment>

  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:titleInfo/mods:nonSort">
  <xsl:comment> nonSort </xsl:comment>

  <xsl:apply-templates />
</xsl:template>

<!-- name -->
<xsl:template match="mods:name">
  <xsl:comment> name </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:name/mods:namePart">
  <xsl:comment> namePart </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:name/mods:displayForm">
  <xsl:comment> displayForm </xsl:comment>
  <xsl:apply-templates />
</xsl:template>
```

```
<xsl:template match="mods:name/mods:affiliation">
  <xsl:comment> affiliation </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<!-- name/role -->
<xsl:template match="mods:name/mods:role">
  <xsl:comment> role </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:name/mods:role/mods:roleTerm">
  <xsl:comment> roleTerm </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:name/mods:description">
  <xsl:comment> description </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<!-- typeOfResource -->
<xsl:template match="mods:typeOfResource">
  <xsl:comment> typeOfResource </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<!-- genre -->
<xsl:template match="mods:genre">
  <xsl:comment> genre </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<!-- originInfo -->
<xsl:template match="mods:originInfo">
  <xsl:comment> originInfo </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<!-- originInfo/place -->
<xsl:template match="mods:originInfo/mods:place">
  <xsl:comment> place </xsl:comment>
```

```
<xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:originInfo/mods:place/mods:placeTerm">
  <xsl:comment> placeTerm </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:originInfo/mods:publisher">
  <xsl:comment> publisher </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:originInfo/mods:dateIssued">
  <xsl:comment> dateIssued </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:originInfo/mods:dateCreated">
  <xsl:comment> dateCreated </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:originInfo/mods:dateCaptured">
  <xsl:comment> dateCaptured </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:originInfo/mods:dateValid">
  <xsl:comment> dateValid </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:originInfo/mods:dateModified">
  <xsl:comment> dateModified </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:originInfo/mods:copyrightDate">
  <xsl:comment> copyrightDate </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:originInfo/mods:dateOther">
```

```
<xsl:comment> dateOther </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:originInfo/mods:edition">
  <xsl:comment> edition </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:originInfo/mods:issuance">
  <xsl:comment> issuance </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:originInfo/mods:frequency">
  <xsl:comment> frequency </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<!-- language -->
<xsl:template match="mods:language">
  <xsl:comment> language </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:language/mods:languageTerm">
  <xsl:comment> languageTerm </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<!-- physicalDescription -->
<xsl:template match="mods:physicalDescription">
  <xsl:comment> physicalDescription </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:physicalDescription/mods:form">
  <xsl:comment> form </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:physicalDescription/mods:reformattingQuality">
  <xsl:comment> reformattingQuality </xsl:comment>
  <xsl:apply-templates />
</xsl:template>
```

```
</xsl:template>

<xsl:template match="mods:physicalDescription/mods:internetMediaType">
  <xsl:comment> internetMediaType </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:physicalDescription/mods:extent">
  <xsl:comment> extent </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:physicalDescription/mods:digitalOrigin">
  <xsl:comment> digitalOrigin </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:physicalDescription/mods:note">
  <xsl:comment> note </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<!-- abstract -->
<xsl:template match="mods:abstract">
  <xsl:comment> abstract </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<!-- tableOfContents -->
<xsl:template match="mods:tableOfContents">
  <xsl:comment> tableOfContents </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<!-- targetAudience -->
<xsl:template match="mods:targetAudience">
  <xsl:comment> targetAudience </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<!-- note -->
<xsl:template match="mods:note">
  <xsl:comment> note </xsl:comment>
  <xsl:apply-templates />
</xsl:template>
```



```
</xsl:template>

<!-- subject -->
<xsl:template match="mods:subject">
  <xsl:comment> subject </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:subject/mods:topic">
  <xsl:comment> topic </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:subject/mods:geographic">
  <xsl:comment> geographic </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:subject/mods:temporal">
  <xsl:comment> temporal </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<!-- use Top Level
<xsl:template match="mods:subject/mods:titleInfo">
  <xsl:comment> titleInfo </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:subject/mods:name">
  <xsl:comment> name </xsl:comment>
  <xsl:apply-templates />
</xsl:template> -->

<xsl:template match="mods:subject/mods:geographicCode">
  <xsl:comment> geographicCode </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<!-- hierarchicalGeographic -->
<xsl:template match="mods:subject/mods:hierarchicalGeographic">
  <xsl:comment> hierarchicalGeographic </xsl:comment>
  <xsl:apply-templates />
</xsl:template>
```

```
<xsl:template match="mods:subject/mods:hierarchicalGeographic/mods:extraterrestrialArea">
  <xsl:comment> extraterrestrialArea </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:subject/mods:hierarchicalGeographic/mods:continent">
  <xsl:comment> continent </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:subject/mods:hierarchicalGeographic/mods:country">
  <xsl:comment> country </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:subject/mods:hierarchicalGeographic/mods:province">
  <xsl:comment> province </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:subject/mods:hierarchicalGeographic/mods:region">
  <xsl:comment> region </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:subject/mods:hierarchicalGeographic/mods:state">
  <xsl:comment> state </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:subject/mods:hierarchicalGeographic/mods:territory">
  <xsl:comment> territory </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:subject/mods:hierarchicalGeographic/mods:county">
  <xsl:comment> county </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:subject/mods:hierarchicalGeographic/mods:city">
  <xsl:comment> city </xsl:comment>
  <xsl:apply-templates />
</xsl:template>
```

```
</xsl:template>

<xsl:template match="mods:subject/mods:hierarchicalGeographic/mods:citySection">
  <xsl:comment> citySection </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:subject/mods:hierarchicalGeographic/mods:island">
  <xsl:comment> island </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:subject/mods:hierarchicalGeographic/mods:area">
  <xsl:comment> area </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<!-- cartographics -->
<xsl:template match="mods:cartographics">
  <xsl:comment> cartographics </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:cartographics/mods:scale">
  <xsl:comment> scale </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:cartographics/mods:projection">
  <xsl:comment> projection </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:cartographics/mods:coordinates">
  <xsl:comment> coordinates </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:cartographics/mods:occupation">
  <xsl:comment> occupation </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<!-- use Top Level
```

```
<xsl:template match="mods:subject/mods:genre">
  <xsl:comment> subject/genre </xsl:comment>
  <xsl:apply-templates />
</xsl:template> -->

<!-- classification -->
<xsl:template match="mods:classification">
  <xsl:comment> classification </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:relatedItem">
  <xsl:comment> relatedItem </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:identifier">
  <xsl:comment> identifier </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<!-- location -->
<xsl:template match="mods:location">
  <xsl:comment> location </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:location/mods:physicalLocation">
  <xsl:comment> physicalLocation </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:location/mods:shelfLocator">
  <xsl:comment> shelfLocator </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:location/mods:url">
  <xsl:comment> url </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<!-- holdingsSimple -->
<xsl:template match="mods:holdingSimple">
```

```
<xsl:comment> holdingSimple </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:holdingSimple/mods:copyInformation">
  <xsl:comment> copyInformation </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:holdingSimple/mods:copyInformation/mods:form">
  <xsl:comment> form </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:holdingSimple/mods:copyInformation/mods:subLocation">
  <xsl:comment> subLocation </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:holdingSimple/mods:copyInformation/mods:shelfLocator">
  <xsl:comment> shelfLocator </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:holdingSimple/mods:copyInformation/mods:electronicLocator">
  <xsl:comment> electronicLocator </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:holdingSimple/mods:copyInformation/mods:note">
  <xsl:comment> note </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:holdingSimple/mods:copyInformation/mods:enumerationAndChronology">
  <xsl:comment> enumerationAndChronology </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<!-- holdingExternal -->
<xsl:template match="mods:holdingExternal">
  <xsl:comment> holdingExternal </xsl:comment>
  <xsl:apply-templates />
</xsl:template>
```

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<!-- accessCondition -->
<xsl:template match="mods:accessCondition">
  <xsl:comment> accessCondition </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:part">
  <xsl:comment> part </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:extension">
  <xsl:comment> extension </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="pii:PII">
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="pii:*">
  <xsl:apply-templates />
</xsl:template>

<xsl:element name="tr" namespace="http://www.w3.org/1999/xhtml">
  <xsl:element name="td" namespace="http://www.w3.org/1999/xhtml">
    //extension/pii
  </xsl:element>
  <xsl:element name="td" namespace="http://www.w3.org/1999/xhtml">
    <xsl:element name="p" namespace="http://www.w3.org/1999/xhtml">
      <xsl:element name="a" namespace="http://www.w3.org/1999/xhtml">
        <xsl:choose>
          <xsl:when test="starts-with(@xlink:href,'http://purl')">
            <xsl:attribute name="title"><xsl:value-of select="'Personally Identifiable
Information'" /></xsl:attribute>
            <xsl:attribute name="charset"><xsl:value-of select="'UTF-8'" /></xsl:attribute>
            <xsl:attribute name="rel"><xsl:value-of select="'term'" /></xsl:attribute>
            <xsl:attribute name="hreflang"><xsl:value-of select="'en'" /></xsl:attribute>
            <xsl:attribute name="type"><xsl:value-of select="'application/rdf+xml'"
/></xsl:attribute>
            <xsl:attribute name="href"><xsl:value-of select="@xlink:href" /></xsl:attribute>
          </xsl:when>
          <xsl:otherwise>
            <xsl:attribute name="title"><xsl:value-of select="'Personally Identifiable

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Information'" /></xsl:attribute>
    <xsl:attribute name="charset"><xsl:value-of select="'UTF-8'" /></xsl:attribute>
    <xsl:attribute name="rel"><xsl:value-of select="'help'" /></xsl:attribute>
        <xsl:attribute name="lang"><xsl:value-of select="'en'" /></xsl:attribute>
        <xsl:attribute name="type"><xsl:value-of select="'text/html'" /></xsl:attribute>
        <xsl:attribute name="href"><xsl:value-of select="@xlink:href" /></xsl:attribute>
    </xsl:otherwise>
</xsl:choose>
    <xsl:value-of select="concat('[',local-name(),']')" />
</xsl:element>
</xsl:element>
</xsl:element>

</xsl:element>
</xsl:template>
<xsl:template match="mods:recordInfo">
    <xsl:comment> recordInfo </xsl:comment>
    <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:recordInfo/mods:recordContentSource">
    <xsl:comment> recordContentSource </xsl:comment>
    <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:recordInfo/mods:recordCreationDate">
    <xsl:comment> recordCreationDate </xsl:comment>
    <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:recordInfo/mods:recordChangeDate">
    <xsl:comment> recordChangeDate </xsl:comment>
    <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:recordInfo/mods:recordIdentifier">
    <xsl:comment> recordIdentifier </xsl:comment>
    <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:recordInfo/mods:languageOfCataloging">
    <xsl:comment> languageOfCataloging </xsl:comment>
    <xsl:apply-templates />
</xsl:template>

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<xsl:template match="mods:recordInfo/mods:recordOrigin">
  <xsl:comment> recordOrigin </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:recordInfo/mods:descriptionStandard">
  <xsl:comment> descriptionStandard </xsl:comment>
  <xsl:apply-templates />
</xsl:template>

<xsl:template match="mods:*[.=text()]">
<xsl:variable name="xpath">
<xsl:for-each select="ancestor-or-self::*">
  <xsl:if test="position()='1'"></xsl:if>
  <xsl:value-of select="name(.)" />
  <xsl:if test="position()=last()"></xsl:if>
</xsl:for-each>
</xsl:variable>

<xsl:variable name="mxpath">
  <xsl:value-of select="concat ('//mods',substring-after(normalize-space($xpath),'mods'))" />
</xsl:variable>

<xsl:element name="tr" namespace="http://www.w3.org/1999/xhtml">
  <xsl:element name="td" namespace="http://www.w3.org/1999/xhtml">
    <xsl:element name="p" namespace="http://www.w3.org/1999/xhtml">
      <xsl:value-of select="normalize-space($mxpath)" />
    </xsl:element>
  </xsl:element>
  <xsl:element name="td" namespace="http://www.w3.org/1999/xhtml">
    <xsl:element name="p" namespace="http://www.w3.org/1999/xhtml">
      <xsl:value-of select="normalize-space(concat('&quot;',.,'&quot;'))" />
    </xsl:element>
  </xsl:element>
</xsl:element>
</xsl:template>

</xsl:stylesheet>

```