

生成和管理元数据中使用的受控 词表

培训4

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Stuart A. Sutton & Joseph T. Tennis

美国西雅图华盛顿大学信息学院

培训目的

- 受控词表的开发 [*Joe Tennis*]
 - 开发应考虑的因素
 - 开发的技术
- 为**WEB**管理受控词表 [*Stuart Sutton*]
 - 受控词表和受控词表术语的标识
 - 受控词表声明
 - 受控词表发布

内容

- **定义:** 我们讨论的受控词表的含义
- **问题:** 在开发、生成、使用和管理词表中存在哪些问题?
- **词表生成:如何生成受控词表?**
 - 生成一个全新的受控词表
 - 专为一个已经使用许多不同词表的专门领域生成一个有用的受控词表
- **格式和使用:受控词表是如何表示和使用的?**
 - 用URI references来标识词表的术语
 - 用人工可读的字串来表示词表中的概念
- **管理:如何对受控词表进行管理?**
 - 受控词表的声明和发布
 - (受控词表)简单的和复杂的登记注册

问题

- **没有采用受控词表.** 许多元数据应用在生成元数据的值时没有采用受控词表
- **采用受控词表的词汇，但是没有标识.** 即使采用了受控词表，也没有在最终的元数据记录中标识出来
- **词汇不能公开访问.** 即使元数据记录中标识了受控词表，这些词表依旧不能被人/机进行访问
- **在向上兼容 (*dumbing down*) 转化过程中词表标识丢失.** 复杂元数据记录（如限定DC）在向上兼容过程中词表的标识会丢失

定义

- 受控词表(CV): 元数据属性明确取值的一个有限集合
 - 不同于元数据词表 (metadata vocabulary), 元数据词表定义属性的有限集合, 例如一个schema。
 - 在元数据声明 “dc:subject=cybernetics”中, 我们只关心位于声明右半部分的受控词 (例如编码体系*scheme*或取值空间)
- 不仅 “subject”这一元素有受控词!
 - DC中除了一些不能限定值的元素 (如dc:description) 之外, 其它所有的元素或修饰词均可以采用受控词表的词汇来提高准确性和加强属性的含义
 - 例如, DCMI词表中采用的dc:type词汇表是一个受控词表

受控词表的开发

词表开发

- 词表开发的两种类型
 - 生成一个全新的受控词表
 - 专为一个已经使用许多不同词表的专门领域生成一个有用的受控词表

词表开发

- 生成一个全新的受控词表
 - 采用多种方式从行业社团中搜集信息
 - 从用户的代表那里搜集信息 (在代表的委员会中仔细审查想法)
 - 搜集行业的信息和信息需求
 - 搜集用户的查询搜索数据
 - 构建词表
 - 标识术语
 - 标识术语之间的关系
 - 维护词表
 - 保持词表的当前性 (current) 和有效性!
 - 基于用户、领域和代表的输入进行维护

生成一个全新的受控词表

- 从行业中搜集信息 [1/3]
 - 代表代替用户
 - 委员会会议
 - 词表草案
 - 将词汇表交与委员会审核
 - 该方法的优点
 - 快捷、迅速
 - 成本低
 - 该方法的缺点
 - 没有真正用户的数据
 - 无法预先知道构建的词表是否有效

生成一个全新的词表

- 从行业中搜集信息[2/3]
 - 行业的信息需求
 - 在文档中采用的术语有哪些？
 - 例如 web pages, journal articles, maps?
 - 行业的构架方式？
 - 信息的生成者、利用者和存储者是谁？
 - 是否存在规范信息流的标准（如教育标准）？
 - 有无关于信息流的基本理念？（需要抓取全部还是部分理念？）

生成一个全新的词表

- 从行业中搜集信息[3/3]
 - 行业采用的搜索术语有哪些？
 - 他们所需信息是为了完成何种任务？
 - 他们搜索信息的习惯有哪些（其他人呢）？ — 这如何影响构建所需的词表？
- 这三种数据搜集活动都有助于构建术语和术语之间的关系。

生成一个全新的词表

- 构造词表
 - 标识术语
 - 把同义词放在一起，消除同形词的歧义
 - 任何非正式术语都辅助搜索（扩展指向正式术语的查询）
 - 标识术语之间的关系
 - 标识有助于用户搜索和检索的术语之间的关系
 - 在元数据中明确这些关系。
 - 上面的行为将使一个词表成为“受控”词表

生成一个全新的词表

- 维护词表
 - 检查搜索日志...查找搜索成功与失败之处
 - 对于搜索失败之处，调整词表
 - 如需要，添加新的术语
 - 剔除不需要的术语
 - 考虑用新添的术语作为查询扩展

开发词表

- 为一个已经使用许多不同词表的专门领域生成一个有用的受控词表
 - 合并词表
 - 生成一个高层的转换词表
 - 生成一个全新的词表，并把全新词表中的术语与现有词表的相似词链接起来

开发词表

- 以上三个想法都不理想。
- 以上三个想法都需要对团体（或领域）及词表的使用和用户有精确的了解。
- 用URIs对现有词表中的术语进行定位（Addressing）能够明确单个术语的含义，因为这些术语都将在一定的命名空间中定义。

开发词表

- 合并词表
 - 为了协助搜索，可对词表（术语和术语之间关系）进行合并。
 - 在合并过程中必须考虑每一个词表的结构。
 - 不仅要考虑相似和相同的术语的存在，还要考虑这些术语被索引者和搜索者使用时的具体含义。

开发词表

- 生成一个高层的转换词表
 - 该方法忽略了现有词表的大部分关系结构
 - 与现有词表一起生成一个伞状结构
 - 该方法容易实施，因为对词表、域和用户有准确的认识和理解，但是由于对搜索缺乏控制，搜索效果将有一定的不足

开发词表

- 生成一个全新的词表，并把该词表中的术语与现有词表的术语进行链接
 - 比前面的两个方法用的时间更多和成本更高，比从头手工构造一个词表复杂
 - 成本高，因为必须监视对每一个被链接词汇的改变，并以一种考虑周全的方式把这些改变添加到搜索查询扩展中去，这需要大量的时间和精力

支持词表发现和使用的体系结构

标识、声明和发布词表

Web化（Webized）受控词表

web化受控词表和词表术语指:

- 对受控词表和词表术语进行唯一的永久的标识
用URIs来标识 names/tokens/identifiers
- 用模式（schema）语言进行正式的声明
用 XML或RDF/XML表示
- 通过发布来使词表可以通过web访问
通过web访问注册来发布

词表术语的标识

- **建议 1: 必须为所有的web化的受控词表术语分配 URI reference**

“web体系结构的最基本的条件...就是有统一资源标识符。Web上的所有实体都应该用字符串明确的标识，这一点是web通用性的核心”

Tim Berners-Lee, “Web Architecture from 50,000 Feet”

<<http://www.w3.org/DesignIssues/Architecture.html>>

– DCMII抽象模型草案的要求

“DC 抽象模型要求遵守该模型的所有术语，无论是元素、元素限定、编码体系还是受控词表术语，都被分配一个URI reference来标识该术语”

Andy Powell, “Guidelines for assigning identifiers to metadata terms”

<<http://www.ukoln.ac.uk/metadata/dcmi/term-identifier-guidelines>>

词表术语 URI的构造

- 目标
 - *持续性*。URI应没有特定的存在期限（永久存在？）
 - *唯一性*。根据定义，URI应该唯一定义一个实体（词表、词表术语、词表或词表术语的不同版本）
 - *可解析性*。如可能，现在的web浏览器应能够解析
- URI reference的构造
 - XML命名空间的URI reference
E.g., <http://purl.org/gem/GEMS/>
 - 词表术语名称
E.g., Physics
 - 构造后的URI
<http://purl.org/gem/GEMS/Physics>

持续的 URI Reference 策略

可能的策略:

– 采用特定项目的URL

如, <http://myproject.org/metadata/vocabs/color#Red>

- 持续性值得怀疑

– 采用PURL

E.g., <http://purl.org/gem/educationLevel/Grade 2>

- 可靠的持续性的中间形态

– 采用“info” URI

E.g., <info:ddc/22/eng//004.678>

- 持续的标识但是 *info* URIs 不能够被当前的浏览器识别

DCMI Working Draft: “Guidelines for assigning identifiers to metadata terms”

<http://www.ukoln.ac.uk/metadata/dcmi/term-identifier-guidelines>

词表术语声明

- **建议2: 对所有受控词表的数据都进行声明**
 - “声明”一个术语就是通过schema语言 的方式把术语用计算机可处理的方式表示出来
 - 采用XML和RDF/XML
 - 词表的版本之间和词表中术语的版本之间的关系也要进行声明
 - 一个正在研究和探索的领域
 - 参见 *Guidance information for naming, versioning, evolution, and maintenance of element declarations and application profiles* Draft CWA, July 2004
 - <<ftp://ftp.cenorm.be/public/ws-mmi-dc/mmidc117.htm>>

词表管理信息

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE rdf:RDF (View Source for full doctype...)>
<rdf:RDF xmlns:dcmitype="http://purl.org/dc/dcmitype/" xmlns:dcterms="http://purl.org/dc/terms/"
  xmlns:dc="http://purl.org/dc/elements/1.1/" xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
  xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#">
```

<!-- CONTROLLED VOCABULARY MANAGEMENT INFORMATION -->

```
<rdf:Description rdf:about="http://purl.org/dc/dcmitype/">
  <dc:title xml:lang="en-US">The DCMI Types namespace providing access to its content by means
    of an RDF Schema</dc:title>
  <dc:publisher xml:lang="en-US">The Dublin Core Metadata Initiative</dc:publisher>
  <dc:description xml:lang="en-US">The Dublin Core Types namespace provides URIs for the entries of the
    DCMI Type Vocabulary. Entries are declared using RDF Schema language to support RDF applications.
    The Schema will be updated according to dc-usage decisions.</dc:description>
  <dc:language xml:lang="en-US">English</dc:language>
  <dcterms:requires rdf:resource="http://dublincore.org/documents/dcmi-type-vocabulary/" />
  <dc:source rdf:resource="http://dublincore.org/documents/dcmi-type-vocabulary/" />
  <dc:source rdf:resource="http://dublincore.org/usage/terms/" />
  <dcterms:requires rdf:resource="http://purl.org/dc/elements/1.1/" />
  <dcterms:isReferencedBy rdf:resource="http://purl.org/dc/terms/" />
  <dcterms:issued>2000-07-11</dcterms:issued>
  <dcterms:modified>2002-05-22</dcterms:modified>
</rdf:Description>
```

<!-- TERM DECLARATIONS -->

```
...
...
</rdf:RDF>
```

实例：声明

- DDCMI 类型词表
- GEM 教育层次词汇表

词表术语声明

<!-- TERM DECLARATIONS -->

```
<dcterms:DCMIType rdf:about="http://purl.org/dc/dcmitype/Collection">
  <rdfs:label xml:lang="en-US">Collection</rdfs:label>
  <rdfs:isDefinedBy rdf:resource="http://purl.org/dc/dcmitype/" />
  <rdfs:comment xml:lang="en-US">A collection is an aggregation of items. The term collection means that the resource is described as a group; its parts may be separately described and navigated.</rdfs:comment>
  <rdf:type rdf:resource="http://www.w3.org/2000/01/rdf-schema#Class" />
  <dcterms:issued>2000-07-11</dcterms:issued>
  <dc:type rdf:resource="http://dublincore.org/usage/documents/principles/#vocabulary-term" />
  <dcterms:hasVersion rdf:resource="http://dublincore.org/usage/terms/history/#Collection-001" />
</dcterms:DCMIType>
```

```
<dcterms:DCMIType rdf:about="http://purl.org/dc/dcmitype/Dataset">
  <rdfs:label xml:lang="en-US">Dataset</rdfs:label>
  <rdfs:isDefinedBy rdf:resource="http://purl.org/dc/dcmitype/" />
  <rdfs:comment xml:lang="en-US">A dataset is information encoded in a defined structure (for example, lists, tables, and databases), intended to be useful for direct machine processing.</rdfs:comment>
  <rdf:type rdf:resource="http://www.w3.org/2000/01/rdf-schema#Class" />
  <dcterms:issued>2000-07-11</dcterms:issued>
  <dc:type rdf:resource="http://dublincore.org/usage/documents/principles/#vocabulary-term" />
  <dcterms:hasVersion rdf:resource="http://dublincore.org/usage/terms/history/#Dataset-001" />
</dcterms:DCMIType>
```

...

...

```
</rdf:RDF>
```

XML格式的GEM 教育层次词表

```
<?xml version="1.0" encoding="UTF-8" ?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns="http://purl.org/gem/instance/level/" targetNamespace="http://purl.org/gem/instance/level/"
  elementFormDefault="qualified" attributeFormDefault="unqualified">
  <xs:annotation>
    <xs:documentation xml:lang="en">GEM controlled vocabulary for designating the education level of the
      audience for a resource. Created in 1996 by the GEM Consortium.</xs:documentation>
  </xs:annotation>
  <xs:simpleType name="Level">
    <xs:union>
      <xs:simpleType>
        <xs:restriction base="xs:Name">
          <xs:enumeration value="Preschool education">
          <xs:enumeration value="Kindergarten">
          <xs:enumeration value="Grade 1">
          <xs:enumeration value="Grade 2">
            ...
          <xs:enumeration value="Grade 11">
          <xs:enumeration value="Grade 12">
          <xs:enumeration value="Adult/continuing education">
          <xs:enumeration value="Higher education">
          <xs:enumeration value="Vocational education">
        </xs:restriction>
      </xs:simpleType>
    </xs:union>
  </xs:simpleType>
</xs:schema>
```

实例： 元数据示例

- 杜威十进制分类法DDC
- GEM 主题 (Subject)

RDF格式的DDC实例

```
<?xml version='1.0' encoding='UTF-8'?>
<rdf:RDF xmlns:rdf='http://www.w3.org/1999/02/22-rdf-syntax-ns#'
  xmlns:rdfs='http://www.w3.org/2000/01/rdf-schema#'
  xmlns:dc='http://purl.org/dc/elements/1.1/'
  xmlns:dcterms='http://purl.org/dc/terms/'>
<rdf:Description>
  <dc:subject>
    <dcterms:DDC>
      <rdf:value>930</rdf:value>
      <rdfs:label>History of the ancient world (to ca. 499 A.D.)</rdfs:label>
    </dcterms:DDC>
  </dc:subject>
</rdf:Description>
</rdf:RDF>
```

RDF格式的GEM实例 (Value URI)

```
<?xml version='1.0' encoding='UTF-8'?>
<rdf:RDF xmlns:rdf='http://www.w3.org/1999/02/22-rdf-syntax-ns#'
  xmlns:dc='http://purl.org/dc/elements/1.1/'>
<rdf:Description>
  <!-- GEM hierarchical subject: Arts--Photography -->
  <dc:subject rdf:resource='http://purl.org/gem/instance/
    subject/GEMS/arts_photography'/>
</rdf:Description>
</rdf:RDF>
```

词表的术语发布

- **建议3: 必须发布所有受控词表的术语**
 - Web可寻址的词表登记注册
 - 登记注册复杂性的连续:
 - 从简单的、人可读的HTML页面的词表和词表术语
 - 到复杂的人可读页面和被声明的计算机可寻址的词汇表 schemes
 - 登记注册实例:
 - 简单注册登记—
到教育资料的网关:
<<http://www.thegateway.org/about/documentation/gem-controlled-vocabularies/>>
 - 复杂注册登记—
DCMI 注册登记:
<<http://www.dublincore.org/dcregistry/>>

简单登记注册: GEM

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technical update

License element approved GEM endorses element to describe the license of a resource
2004-08-15

Provenance element approved GEM endorses element to describe the provenance of a resource
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GEM Controlled Vocabularies

GEM Consortium has developed a series of controlled vocabularies that it recommends be used for a number of elements in the GEM element set. While use of these vocabularies is recommended, use of other non-GEM controlled vocabularies is encouraged where needed to serve the needs of a specific metadata collection.

Assessment Element GEM Controlled Vocabulary
Words and phrases that describe student learning assessment methods and instruments.
[RDF Reference URI: <http://purl.org/gem/instance/GEM-AM/>]

Beneficiary Element GEM Controlled Vocabulary
Words or phrases that describe the ultimate beneficiary of the resource being described--usually some category of student or trainee.
[RDF Reference URI: <http://purl.org/gem/instance/GEM-BEN/>]

Grouping Element GEM Controlled Vocabulary
Words and phrases that describe the aggregation and demographics of students for purposes of instruction.
[RDF Reference URI: <http://purl.org/gem/instance/GEM-GRO/>]

Level Element GEM Controlled Vocabulary
Words or phrases used to designate the intended level of students or trainees in a formal educational or training system.
[RDF Reference URI: <http://purl.org/gem/instance/level/>]

Mediator Element GEM Controlled Vocabulary
Words or phrases that describe an intermediary that mediates between the ultimate beneficiary of the resource and resource itself--usually some form of teacher or trainer that uses the resource as a tool.
[RDF Reference URI: <http://purl.org/gem/instance/GEM-MED/>]

PriceCode Element GEM Controlled Vocabulary
Codes that denote the fee status of the resource.
[RDF Reference URI: <http://purl.org/gem/instance/GEMpriceCode/>]

Resource Type Element GEM Controlled Vocabulary

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gateway news

America's Heritage: An Adventure in Liberty a tested curriculum supplement, now available free to Kindergarten-12th grade teachers!
2004-09-30

JES & Co. Announces NSF Funding for Achievement Standards Project
National Science Foundation approves funding for the Achievement Standards Network.
2004-09-30

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NASA Quest NASA Quest includes a full suite of online resources!
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Internet

GEM: Student Grouping 词表

Gateway to Educational Materials - Grouping Element GEM Controlled Vocabulary - Microsoft Internet Explorer

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Grouping Element GEM Controlled Vocabulary

Words and phrases that describe the aggregation and demographics of students for purposes of instruction.

Term	Description
Cross age teaching	Utilization of older students from higher grade levels to provide increased help and attention for younger students at lower grade levels. (ERIC)
Heterogeneous grouping	Organization or classification of students according to specified criteria for the purpose of forming instructional groups with a high degree of dissimilarity. (ERIC)
Homogeneous grouping	Organization or classification of students according to specified criteria for the purpose of forming instructional groups with a high degree of similarity. (ERIC)
Individualized instruction	Adapting instruction to individual needs within the group. (note: do not confuse with "independent study" or "individual instruction") (ERIC)
Large Group instruction	Teaching of students in large classroom situations. (note: do not confuse with "mass instruction") (ERIC)
Non-graded instructional grouping	Grouping students according to such characteristics as academic achievement, mental and physical ability, or emotional development rather than by age or grade level. (ERIC)
Small group instruction	Form of teaching possible in higher education (and sixth forms) where the student to staff ratio is relatively low, and allowing for intensive interaction among small group of participants. (DOE)

Definitions were taken from the following resources:

DOE: *A Dictionary of Education*, Totowa, N.J. : Barnes & Noble Books, 1982, c1981.
 DOE3: *Dictionary of education*, 3d edition; New York, McGraw-Hill, 1973.
 ERIC: *Thesaurus of ERIC Descriptors*, 13th edition; Phoenix, AZ, Orxy Press, 1995.

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Internet

RDF格式的GEM: Student Grouping 词表

```
http://gemstar.ischool.washington.edu/InstanceData/Pedagogy/grouping/2-25-2004/GEM-GRO - Microsoft Internet Explorer
File Edit View Favorites Tools Help

<?xml version="1.0" ?>
- <rdf:RDF xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#" xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
  xmlns:dc="http://purl.org/dc/elements/1.1/">
- <rdf:Description rdf:about="http://purl.oclc.org/gem/instance/group/#CrossAgeTeaching">
  <rdf:type rdf:resource="http://purl.org/gem/qualifiers/GEM-GRO" />
  <rdf:value>cross age teaching</rdf:value>
  <rdfs:label>Cross age teaching</rdfs:label>
  <dc:description>Utilization of older students from higher grade levels to provide increased help and attention for younger
  students at lower grade levels.</dc:description>
</rdf:Description>
- <rdf:Description rdf:about="http://purl.oclc.org/gem/instance/group/#HeterogeneousGrouping">
  <rdf:type rdf:resource="http://purl.org/gem/qualifiers/GEM-GRO" />
  <rdf:value>heterogeneous grouping</rdf:value>
  <rdfs:label>Heterogeneous grouping</rdfs:label>
  <dc:description>Organization or classification of students according to specified criteria for the purpose of forming
  instructional groups with a high degree of dissimilarity.</dc:description>
</rdf:Description>
- <rdf:Description rdf:about="http://purl.oclc.org/gem/instance/group/#HomogeneousGrouping">
  <rdf:type rdf:resource="http://purl.org/gem/qualifiers/GEM-GRO" />
  <rdf:value>homogeneous grouping</rdf:value>
  <rdfs:label>Homogeneous grouping</rdfs:label>
  <dc:description>Organization or classification of students according to specified criteria for the purpose of forming
  instructional groups with a high degree of similarity.</dc:description>
</rdf:Description>
- <rdf:Description rdf:about="http://purl.oclc.org/gem/instance/group/#IndividualizedInstruction">
  <rdf:type rdf:resource="http://purl.org/gem/qualifiers/GEM-GRO" />
  <rdf:value>individualized instruction</rdf:value>
  <rdfs:label>Individualized instruction</rdfs:label>
  <dc:description>Adapting instruction to individual needs within the group. (note: do not confuse with "independent study"
  or "individual instruction").</dc:description>
</rdf:Description>
- <rdf:Description rdf:about="http://purl.oclc.org/gem/instance/group/#LargeGroupInstruction">
  <rdf:type rdf:resource="http://purl.org/gem/qualifiers/GEM-GRO" />
  <rdf:value>large group instruction</rdf:value>
  <rdfs:label>Large group instruction</rdfs:label>
  <dc:description>Teaching of students in large classroom situations. (note: do not confuse with "mass
  instruction").</dc:description>
</rdf:Description>
- <rdf:Description rdf:about="http://purl.oclc.org/gem/instance/group/#Non-gradedInstructionalGrouping">
  <rdf:type rdf:resource="http://purl.org/gem/qualifiers/GEM-GRO" />
  <rdf:value>non-graded instructional grouping</rdf:value>
  <rdfs:label>Non-graded instructional grouping</rdfs:label>
  <dc:description>Grouping students according to such characteristics as academic achievement, mental and physical
  ability, or emotional development rather than by age or grade level.</dc:description>
</rdf:Description>
- <rdf:Description rdf:about="http://purl.oclc.org/gem/instance/group/#SmallGroupInstruction">
  <rdf:type rdf:resource="http://purl.org/gem/qualifiers/GEM-GRO" />
```

复杂登记注册: DCMI

The screenshot shows a web browser window titled "The Open Metadata Registry - Microsoft Internet Explorer". The browser's menu bar includes "File", "Edit", "View", "Favorites", "Tools", and "Help". The website header features a blue banner with a sun-like logo on the left and navigation links on the right: "About", "Browse | Search", "Administration", and "Help". Below the banner, the text reads "The Dublin Core Metadata Registry" and "Promoting the discovery and reuse of metadata." The version number "v 3.3.2" is displayed in the bottom right of the banner. Below the banner, there are links for "Browse | Search" and "Language Preference". The main content area is titled "Browse the registry by classification type" and contains a "Display:" section with a dropdown menu set to "Terms Overview" and a "Browse" button. Below this, there is a contact information line: "Please direct questions, comments and suggestions to: webmaster@dublincore.org". At the bottom, a copyright notice states: "Copyright © 1995-2004 DCMI All Rights Reserved. DCMI [liability](#), [trademark/service mark](#), [document use](#) and [software licensing](#) rules apply. Your interactions with this site are in accordance with our [privacy](#) statements. Please feel free to [contact us](#) for any questions, comments or media inquiries." The browser's status bar at the bottom shows "Internet".

DCMI 类型词表 (Type Vocabulary)

The screenshot shows a Microsoft Internet Explorer browser window displaying the Open Metadata Registry website. The page title is "The Dublin Core Metadata Registry" with the tagline "Promoting the discovery and reuse of metadata." The browser address bar shows the URL: <http://www.dublincore.org/dcregistry/detailServlet?reqType=detail&item=http%3A%2F%2Fpurl.org%2Fdc%2Fterms%2FDCMIType>. The page features a navigation menu with links for "About", "Browse | Search", "Administration", and "Help". Below the header, there are links for "Browse | Search" and "Language Preference". The main content area is titled "Browse the registry by classification type" and includes a "Display:" dropdown menu set to "Terms Overview" and a "Browse" button. The central part of the page displays a table of metadata for the DCMI Type Vocabulary, with a "View:" column on the right offering options for "RDF/XML", "N-TRIPLE", and "N3". The table includes fields for Label, Definition, Description, Is Defined By, RDF Type, See Also, Type, Has Version, Issued, Modified, and Controlled Vocabulary. The footer contains contact information: "Please direct questions, comments and suggestions to: webmaster@dublincore.org".

The Dublin Core Metadata Registry
Promoting the discovery and reuse of metadata.

About
Browse | Search
Administration
Help
v 3.3.2

Browse | [Search](#) [Language Preference](#)

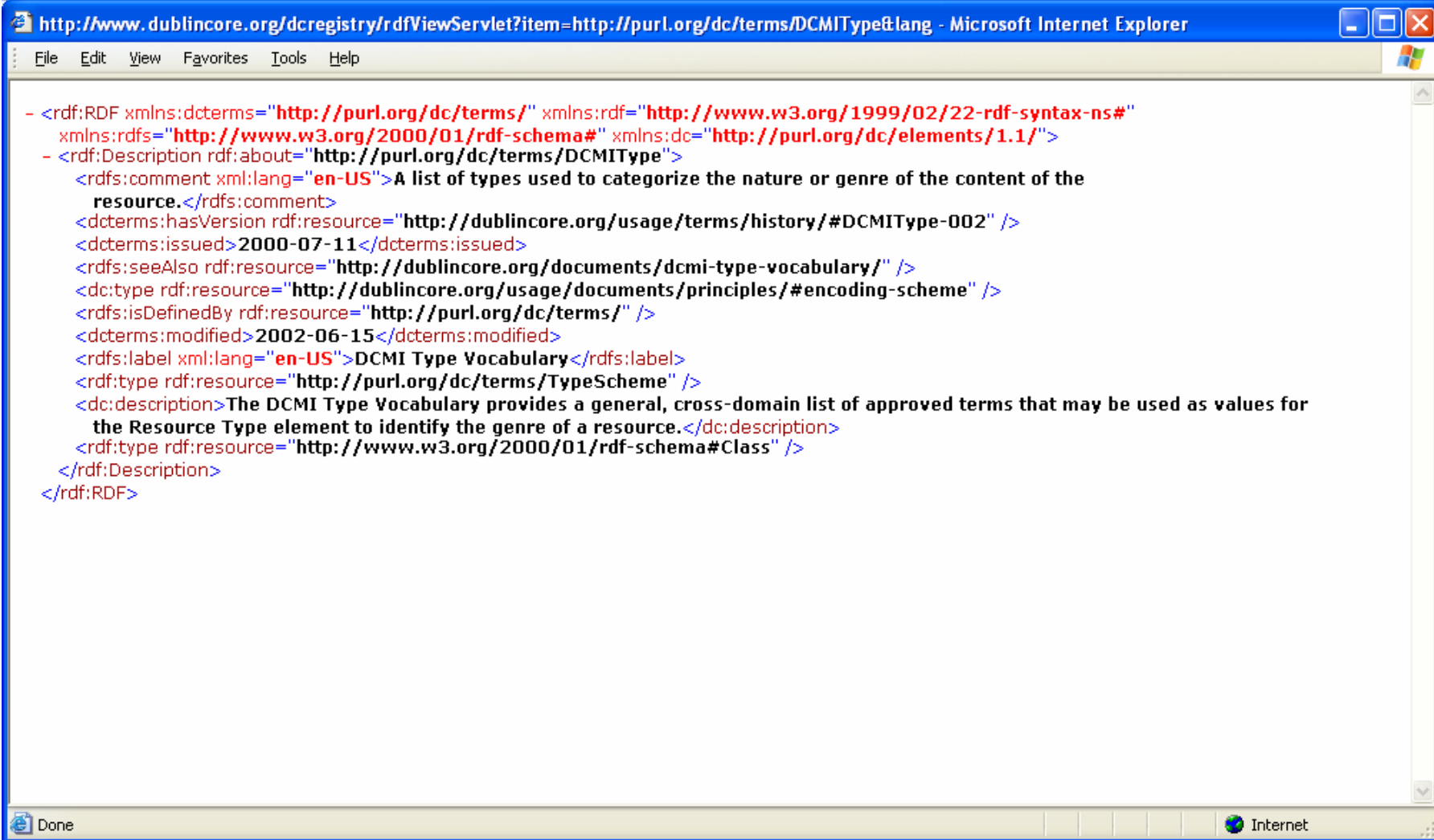
Browse the registry by classification type

Display:

http://purl.org/dc/terms/DCMIType		View:
Label	DCMI Type Vocabulary [en-US]	RDF/XML
Definition	A list of types used to categorize the nature or genre of the content of the resource. [en-US]	N-TRIPLE
Description	The DCMI Type Vocabulary provides a general, cross-domain list of approved terms that may be used as values for the Resource Type element to identify the genre of a resource.	N3
Is Defined By	http://purl.org/dc/terms/	
RDF Type	TypeScheme	
RDF Type	Class	
See Also	http://dublincore.org/documents/dcmi-type-vocabulary/	
Type	encoding-scheme	
Has Version	DCMIType-002	
Issued	2000-07-11	
Modified	2002-06-15	
Controlled Vocabulary	Collection Dataset Event Image InteractiveResource MovingImage PhysicalObject Service Software Sound StillImage Text	

Please direct questions, comments and suggestions to: webmaster@dublincore.org

RDF的DCMI类型词表

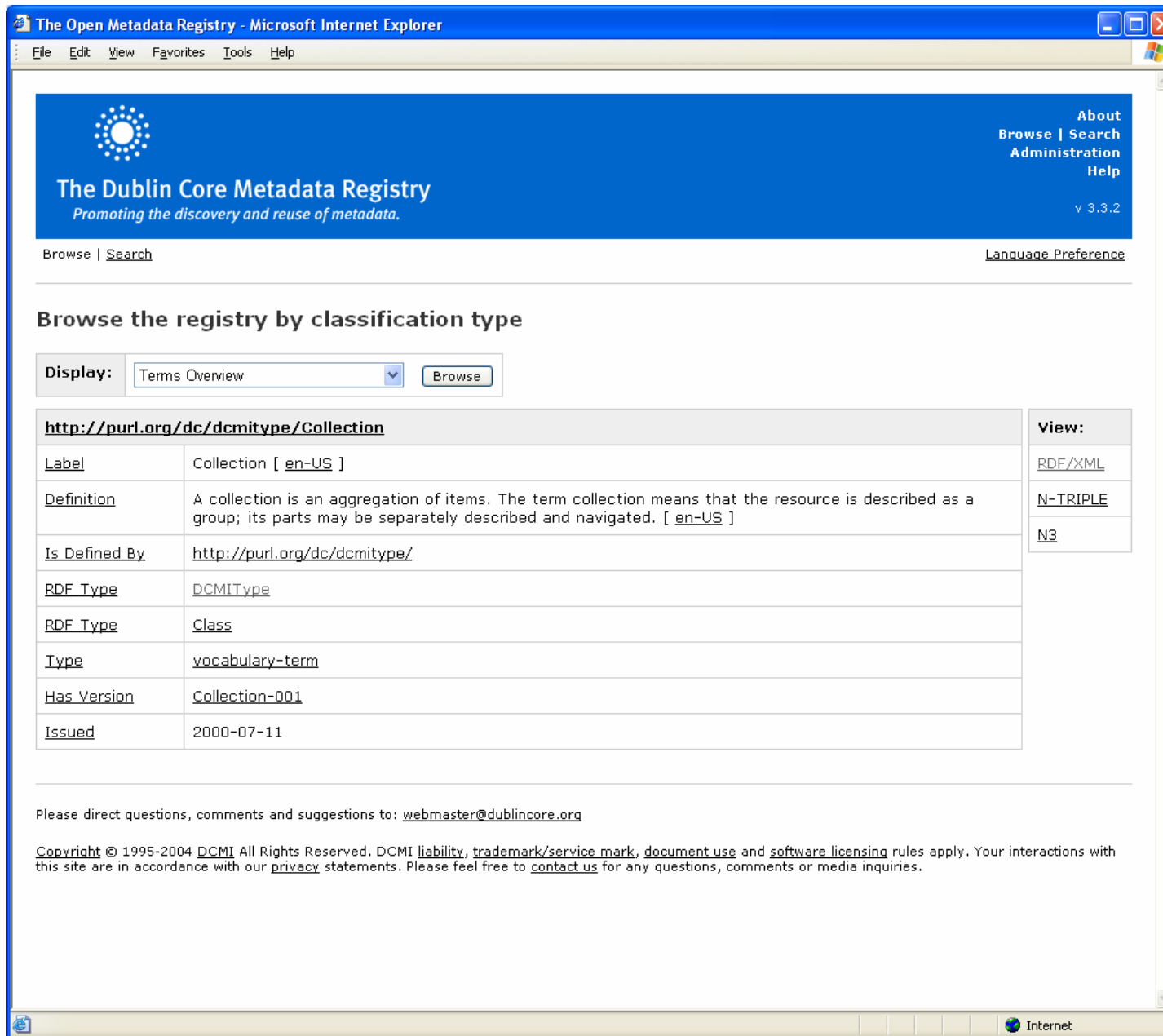


The screenshot shows a Microsoft Internet Explorer browser window with the address bar containing the URL: `http://www.dublincore.org/dcregistry/rdfViewServlet?item=http://purl.org/dc/terms/DCMIType&lang`. The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The main content area displays an RDF XML document for the DCMI Type Vocabulary. The XML includes metadata such as version, issue date, and a description of the vocabulary.

```
- <rdf:RDF xmlns:dcterms="http://purl.org/dc/terms/" xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#" xmlns:dc="http://purl.org/dc/elements/1.1/">
- <rdf:Description rdf:about="http://purl.org/dc/terms/DCMIType">
  <rdfs:comment xml:lang="en-US">A list of types used to categorize the nature or genre of the
  resource.</rdfs:comment>
  <dcterms:hasVersion rdf:resource="http://dublincore.org/usage/terms/history/#DCMIType-002" />
  <dcterms:issued>2000-07-11</dcterms:issued>
  <rdfs:seeAlso rdf:resource="http://dublincore.org/documents/dcmi-type-vocabulary/" />
  <dc:type rdf:resource="http://dublincore.org/usage/documents/principles/#encoding-scheme" />
  <rdfs:isDefinedBy rdf:resource="http://purl.org/dc/terms/" />
  <dcterms:modified>2002-06-15</dcterms:modified>
  <rdfs:label xml:lang="en-US">DCMI Type Vocabulary</rdfs:label>
  <rdf:type rdf:resource="http://purl.org/dc/terms/TypeScheme" />
  <dc:description>The DCMI Type Vocabulary provides a general, cross-domain list of approved terms that may be used as values for
  the Resource Type element to identify the genre of a resource.</dc:description>
  <rdf:type rdf:resource="http://www.w3.org/2000/01/rdf-schema#Class" />
</rdf:Description>
</rdf:RDF>
```

At the bottom of the browser window, the status bar shows "Done" on the left and "Internet" on the right.

DCMI 类型术语：“集合（Collection）”



The screenshot shows a web browser window titled "The Open Metadata Registry - Microsoft Internet Explorer". The page header includes the Dublin Core logo and the text "The Dublin Core Metadata Registry Promoting the discovery and reuse of metadata." Navigation links for "About", "Browse | Search", "Administration", and "Help" are visible, along with the version "v 3.3.2". A "Language Preference" link is also present.

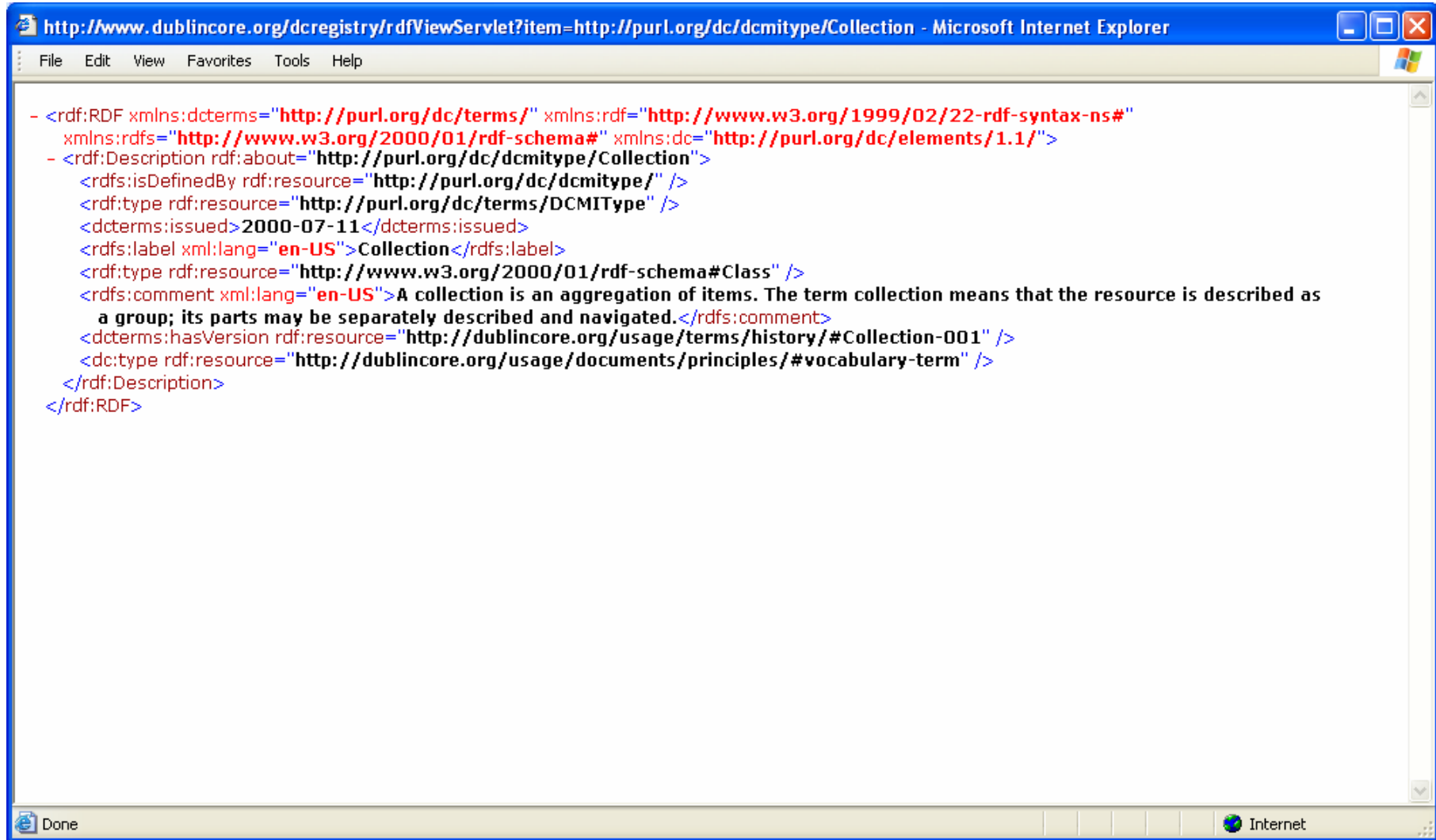
The main content area is titled "Browse the registry by classification type". It features a "Display:" dropdown menu set to "Terms Overview" and a "Browse" button.

The central table displays the details for the <http://purl.org/dc/dcmitype/Collection> type. The table has two columns: property names and their values.

http://purl.org/dc/dcmitype/Collection		View:
Label	Collection [en-US]	RDF/XML
Definition	A collection is an aggregation of items. The term collection means that the resource is described as a group; its parts may be separately described and navigated. [en-US]	N-TRIPLE
Is Defined By	http://purl.org/dc/dcmitype/	N3
RDF Type	DCMIType	
RDF Type	Class	
Type	vocabulary-term	
Has Version	Collection-001	
Issued	2000-07-11	

Below the table, there is a footer section with contact information: "Please direct questions, comments and suggestions to: webmaster@dublincore.org". It also includes a copyright notice: "Copyright © 1995-2004 DCMI All Rights Reserved. DCMI [liability](#), [trademark/service mark](#), [document use](#) and [software licensing](#) rules apply. Your interactions with this site are in accordance with our [privacy](#) statements. Please feel free to [contact us](#) for any questions, comments or media inquiries."

RDF格式的DCMI 类型术语“集合 (Collection)”(RDF)



The screenshot shows a Microsoft Internet Explorer browser window displaying the RDF XML for the DCMI Collection term. The address bar shows the URL: <http://www.dublincore.org/dcregistry/rdfViewServlet?item=http://purl.org/dc/dcmitype/Collection>. The browser window title is "Microsoft Internet Explorer". The menu bar includes "File", "Edit", "View", "Favorites", "Tools", and "Help". The main content area displays the following XML code:

```
- <rdf:RDF xmlns:dcterms="http://purl.org/dc/terms/" xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#" xmlns:dc="http://purl.org/dc/elements/1.1/">
- <rdf:Description rdf:about="http://purl.org/dc/dcmitype/Collection">
  <rdfs:isDefinedBy rdf:resource="http://purl.org/dc/dcmitype/" />
  <rdfs:type rdf:resource="http://purl.org/dc/terms/DCMIType" />
  <dcterms:issued>2000-07-11</dcterms:issued>
  <rdfs:label xml:lang="en-US">Collection</rdfs:label>
  <rdfs:type rdf:resource="http://www.w3.org/2000/01/rdf-schema#Class" />
  <rdfs:comment xml:lang="en-US">A collection is an aggregation of items. The term collection means that the resource is described as
  a group; its parts may be separately described and navigated.</rdfs:comment>
  <dcterms:hasVersion rdf:resource="http://dublincore.org/usage/terms/history/#Collection-001" />
  <dc:type rdf:resource="http://dublincore.org/usage/documents/principles/#vocabulary-term" />
</rdf:Description>
</rdf:RDF>
```

The status bar at the bottom shows "Done" on the left and "Internet" on the right.

请提出您的问题？

谢谢参加！

Stuart A. Sutton

sasutton@u.washington.edu

Joseph Tennis

jtennis@u.washington.edu