

Ontology Engineering RDF Publishing Checklist

1. **USER:** Upload RDF files to TW Portal using embedded `<document>` tags in project pages
 - a. Think about your user; avoid long project and ontology names!
 - b. These files physically reside on tetherless within: `/var/www/html/tw.rpi.edu/media/files/latest/`
2. **SYSADMIN:** Create Year and Project folders to receive RDF and other files
 - a. Example: For 2018: `/var/www/html/tw.rpi.edu/Courses/Ontologies/2018/`
 - b. Example: Project subdirectories created in the 2018 folder:
 - i. `DiabetesTreatmentSupport/`
 - ii. `EventFinder/`
 - iii. `FaceRecognitionModelAnalyzer/`
 - iv. `WhatToMake/`
3. **SYSADMIN:** Copy or symbolic link a project's RDF files to the above project sub-directories.
 - a. *Symbolic links to the physical files are preferred; this enables students to update published files themselves*
4. **SYSADMIN:** Set up re-direction and content negotiation:
 - a. Create one `catalog-v001.xml` file for each project directory
 - b. Create one `.htaccess` file for each project directory
 - c. Create one `.var` file and one `.html` for each RDF file in each project directory
 - i. For example, if there is a `foo.rdf` file, you will create `foo.var` and `foo.html` files
5. **TEST:** Attempt to resolve: `https://tw.rpi.edu/Courses/Ontologies/YEAR/ProjectName/OntologyName/`



These become part of the IRI!!

Ontology Engineering: **catalog-v001.xml** file

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
```

```
<catalog prefer="public" xmlns="urn:oasis:names:tc:entity:xmlns:xml:catalog">
```

```
<uri id="User Entered Import Resolution"
```

```
  name="https://tw.rpi.edu/Courses/Ontologies/2018/WhatToMake/WhatToMake/"
```

```
  uri=".WhatToMake.rdf"/>
```

Desired IRI

Actual RDF
file name

```
<uri id="User Entered Import Resolution"
```

```
  name="https://tw.rpi.edu/Courses/Ontologies/2018/WhatToMake/WhatToMake_Individuals/"
```

```
  uri=".WhatToMake_Individuals.rdf"/>
```

```
<uri id="User Entered Import Resolution"
```

```
  name="https://tw.rpi.edu/Courses/Ontologies/2018/WhatToMake/WhatToMake_FoodClassification/"
```

```
  uri=".WhatToMake_FoodClassification.rdf"/>
```

```
</catalog>
```

- This file will always be named **catalog-v001.xml**
- Create this file in **/var/www/html/tw.rpi.edu/Courses/Ontologies/YEAR/ProjectName/**

Ontology Engineering: **.var file**

Example: For the RDF file **WhatToMake.rdf**, this is contents of **WhatToMake.var**

URI: **WhatToMake**

URI: **WhatToMake.html**

Content-type: text/html

URI: **WhatToMake.rdf**

Content-type: application/rdf+xml

- There should be one matching **.var file for every RDF file** in the project directory!
- Create these files in **/var/www/html/tw.rpi.edu/Courses/Ontologies/YEAR/ProjectName/**

Ontology Engineering: .html file

Example: For the RDF file `WhatToMake.rdf`, this is contents of `WhatToMake.html`

```
<html>
  <head>
    <title>Tetherless World Constellation Schema</title>
    <meta http-equiv="Expires" content="Mon, 01 Apr 1996 09:00:00 GMT">
    <meta http-equiv="Pragma" content="no-cache">
    <meta http-equiv="Refresh"
content="0;url=http://www.essepuntato.it/lode/owlapi/https://tw.rpi.edu/Courses/Ontologies/2018/WhatToMake/WhatToMake.rdf">
  </head>
  <body>
</body>
</html>
```

HTML-from-RDF web service

Web link to actual RDF

- There should be one matching .html file **for every RDF file** in the project directory!
- Create these files in `/var/www/html/tw.rpi.edu/Courses/Ontologies/YEAR/ProjectName/`

Ontology Engineering: .htaccess file

Options +Indexes

```
AddType application/rdf+xml .rdf
AddType application/rdf+xml .owl
AddType text/turtle .ttl
AddType text/n3 .n3
AddType application/n-triples .nt
AddType application/json .json
```

No line returns allowed in
RedirectMatch line!

```
Header set Access-Control-Allow-Origin "*"
Header set Access-Control-Allow-Credentials ""
Header set Access-Control-Allow-Methods "GET, POST, OPTIONS"
Header set Access-Control-Allow-Headers "DNT,X-CustomHeader,Keep-Alive,User-Agent,X-Requested-With,If-Modified-Since,Cache-Control,Content-Type,Accept"
```

RewriteEngine On

```
RedirectMatch permanent ^/Courses/Ontologies/2018/WhatToMake/WhatToMake$ https://tw.rpi.edu/Courses/Ontologies/2018/WhatToMake/WhatToMake.var
RedirectMatch permanent ^/Courses/Ontologies/2018/WhatToMake/WhatToMake/ https://tw.rpi.edu/Courses/Ontologies/2018/WhatToMake/WhatToMake.var
RedirectMatch permanent ^/Courses/Ontologies/2018/WhatToMake/WhatToMake_Individuals$ https://tw.rpi.edu/Courses/Ontologies/2018/WhatToMake/WhatToMake_Individuals.var
RedirectMatch permanent ^/Courses/Ontologies/2018/WhatToMake/WhatToMake_Individuals/$
https://tw.rpi.edu/Courses/Ontologies/2018/WhatToMake/WhatToMake_Individuals.var
RedirectMatch permanent ^/Courses/Ontologies/2018/WhatToMake/WhatToMake_FoodClassification$
https://tw.rpi.edu/Courses/Ontologies/2018/WhatToMake/WhatToMake_FoodClassification.var
RedirectMatch permanent ^/Courses/Ontologies/2018/WhatToMake/WhatToMake_FoodClassification/$
https://tw.rpi.edu/Courses/Ontologies/2018/WhatToMake/WhatToMake_FoodClassification.var
```

Two entries for each .var
file in project directory:
One with slash in IRI
One without slash in IRI

- Create these files in **/var/www/html/tw.rpi.edu/Courses/Ontologies/YEAR/ProjectName/**