StudentWeb/FS integration with institutional repositories for Master's Thesis submission

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Background

- new IR system platform - DSpace
- old ideas become new: Integration of student info system (StudentWeb) with IR

- national and institutional scope:
  - re-use of authoritative metadata
  - StudentWeb = one-stop shop for students and staff
  - national solution
  - transition from print to electronic

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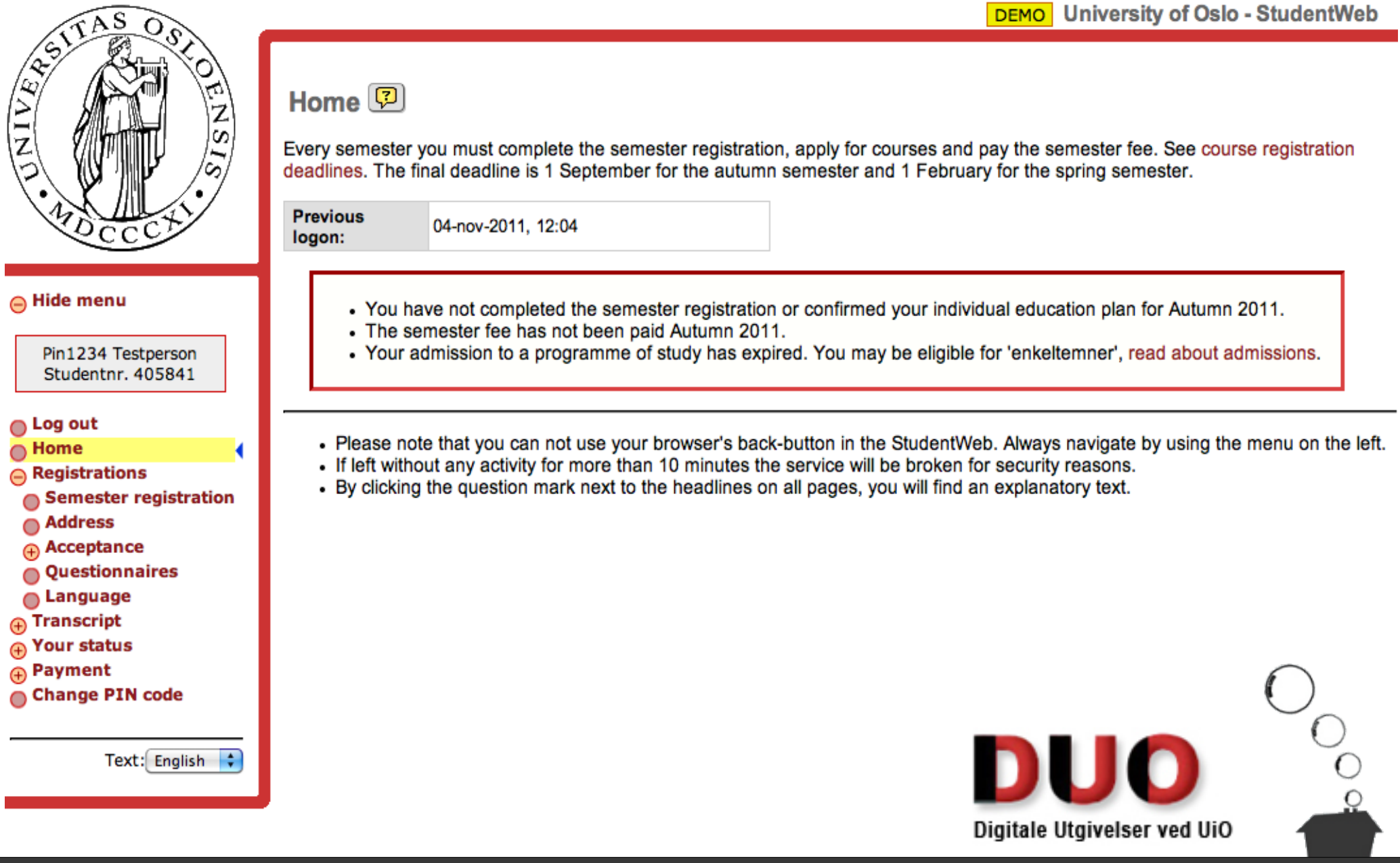
What is StudentWeb?



Why integrate StudentWeb/FS with institutional repository

- Ensure all Master's Theses are archived, irrespective of grade
- Ensure quality of data
- Be able to deliver the relevant theses on to other systems such as Riksarkivet
- Be able to make those Master's Theses which make a pass grade available Open Access

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Technical solution proposal - It began ...

DSpace workshop, Oslo, September:

- StudentWeb/FS - *Systems owner*
- University of Oslo - *Nye DUO project*
- Cottage Labs - *Domain Expert, Independent 3rd Party*
- University of Bergen - *Stakeholder*
- Cristin - *Interested Party*
- University College Oslo - *Stakeholder*

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Technical Approach

- SWORD 2.0 for transport protocol
  - http://www.swordapp.org/
- BagIt for content packaging
  - http://tools.ietf.org/html/draft-kunze-bagit-06
- Open Source Software for DSpace
  - https://github.com/nye-duo

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What is SWORD 2.0

- 1.x developed by JISC in the UK for basic repository deposit
- 2.0 developed to support full CRUD for a range of scholarly systems
- Client implementations: Java, Python, PHP, Ruby, (C#)
- Server implementations: DSpace, EPrints, Fedora, Connexions

Why use SWORD 2.0 here?

- Supports full CRUD over a RESTful web service, so is functionally rich enough to provide the solution
- Is an emerging standard in our sector
- Has implementations for the major open source repository platforms
- Has existing client libraries already written
- No obvious competitor (WebDAV, CMIS, AtomPub?)

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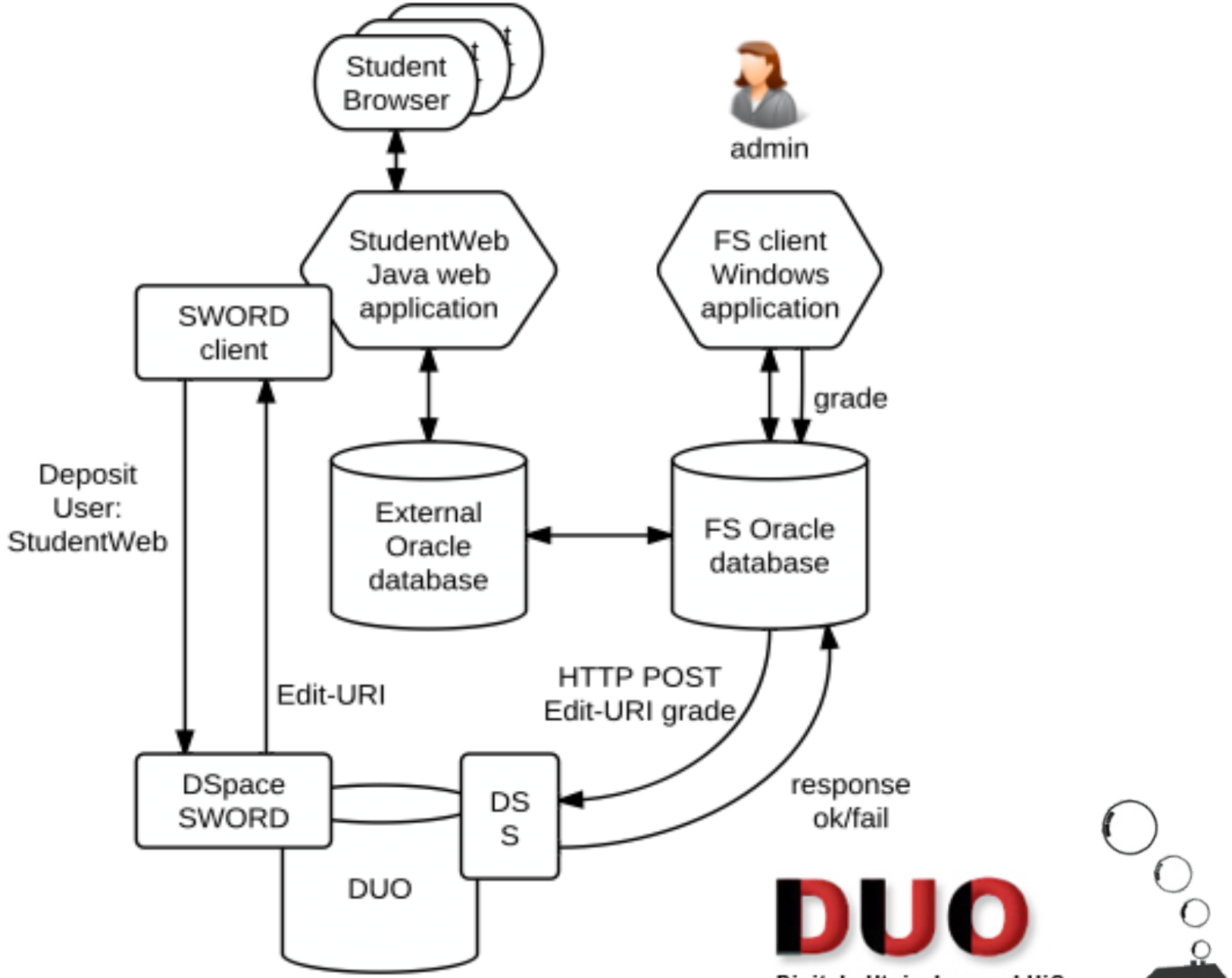
Usage of SWORD 2.0



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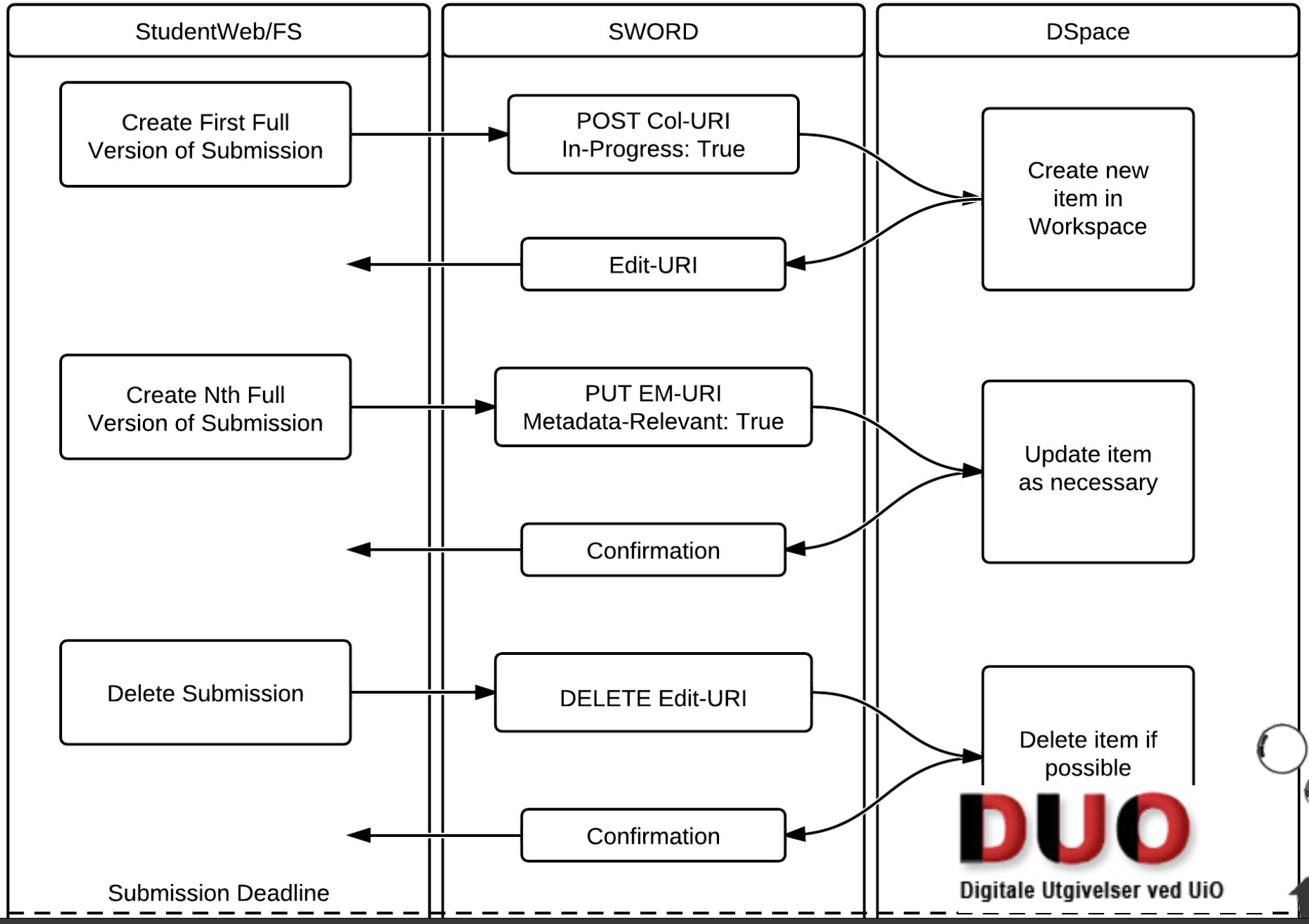
Before Submission Deadline ...



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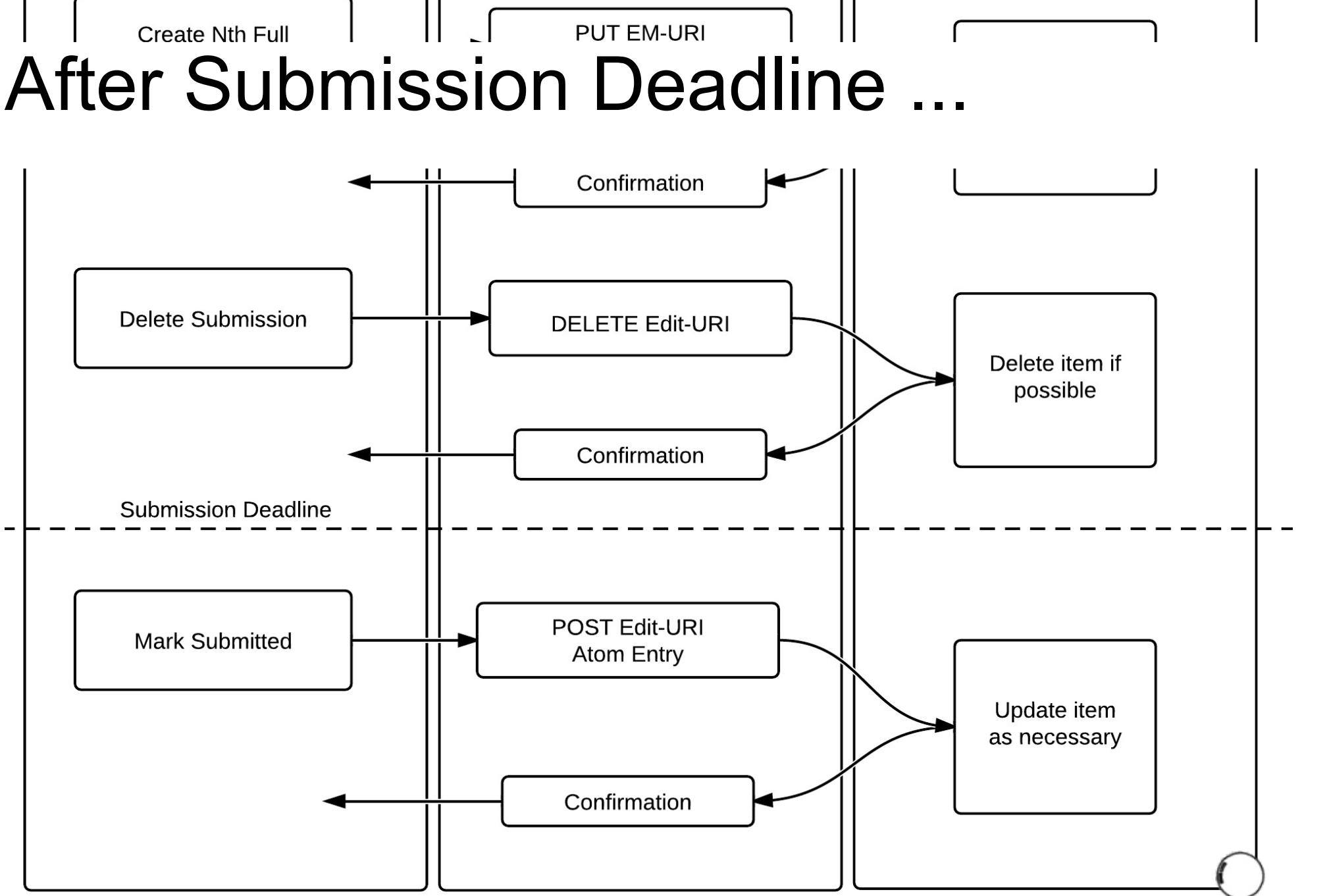
After Submission Deadline ...



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BagIt Packaging

- Primary/Final Content Files (PDFs + Attachments)
- Secondary and Source Files (Any Formats)
- Licence (Plain Text)
- Metadata (XML)

```
<base directory>/
|   bagit.txt
|   manifest-md5.txt
|   tagmanifest-md5.txt
\--- data/
      \--- final
            |   [final version files]
      \--- supporting
            |   [supporting files]
      \--- licence/
            |   licence.txt
      \--- metadata/
            |   metadata.xml
\--- tagfiles/
      |   supporting.access.txt
      |   formats.txt
      |   final.sequence.txt
      |   supporting.sequence.txt
```

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Available Metadata

- Student:
  - Name
  - Student Number
  - Institutional Username
  - Fodselsnummer
  - Postal Address
  - Telephone Number
  - Email Address
- Subject
  - Code
  - Name
- Unit Code
- Title
- Abstract
- Language
- Embargo Date
- Grade

Encoded as a custom XML format, due to lack of clear schema for the data

Where are we up to?

- **Requirements** have been drafted for both **StudentWeb/FS** side and **DSpace** side developments
- **Development** of the **code libraries** to deploy a **pilot** service
- **Integrated** the code libraries into **DSpace** and **StudentWeb/FS**
- Just finished running the **pilot**

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After the Pilot?

Once the pilot completes, samarbeidstiltaket FS has indicated that there will be a national meeting organised by StudentWeb/FS.

It will be possible for all Norwegian institutions to hook their StudentWeb instance up to a SWORD 2.0 compliant Digital Repository.

Thanks for listening!

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