

# UnderDok

a talk given at

**Balisage 2015**

North Bethesda, MD

August 14<sup>th</sup>, 2015

by

**Claus Huitfeldt**

University of Bergen

# UnderDok

- An XML-based document system for assisting the creation and maintenance of administrative documents in higher education.

# Why "UnderDok"?

- English:

Underdog

- Norwegian:

Vidunderlig undervisningsdokumentsystem  
(Wonderful educational document system)

# Structure of this talk

- Background
  - The Bologna Process
  - Document structure
  - Editing cycle
- First thoughts
- Second thoughts
  - Overall design
  - Attributes
  - Version control
  - The metaphysics of course descriptions

# The Bologna Process

- Cooperation between 46 European(+) countries since 1999
- Goal: increase mobility in European higher education (EHEA)
- Means: Standardization
  - Degrees, Study programs, Exchange programs, Diplomas, Credit systems, etc etc.
  - In particular, program and course descriptions, including descriptors / terminology used in them
- University of Bergen alone: thousands of documents

# Course Description for FIL124

## Course name

Introduksjon til praktisk filosofi

**Bokmål:** Introduksjon til praktisk filosofi

**English:** Introduction to practical philosophy

## Course Credit Points

10 points.

## Course Code

FIL124

## Course Unit Level

Bachelor

## Department

Department of Philosophy

## Access to the Course Unit

The course is open to students admitted at the University of Bergen

## Language of Instruction

Norwegian or English

## Aim and Content

Philosophy is often divided into practical philosophy and theoretical philosophy. Practical philosophy includes such areas as ethics, aesthetics, political and social philosophy, philosophy of law, philosophy of religion, feminist philosophy, action theory and value theory. The distinction between practical philosophy and theoretical philosophy is, however, not always clear and is a matter of debate, and problems within practical philosophy are often relevant for questions in theoretical philosophy. It is therefore important that all who study philosophy have a solid knowledge of practical philosophy, even if they in their advanced studies choose to concentrate on theoretical philosophy.

FIL124 aims to give students an overview of important basic concepts, arguments and positions in practical philosophy. Although the main emphasis is on subjects from contemporary philosophy, it will often be appropriate to start with philosophical works and positions from previous time periods. After completion of the course, the students should be able to demonstrate insight into central theories and problems from within practical philosophy and to see their relevance and applicability for other contexts. The course provides a foundation for further studies in philosophy at the Bachelor level.

## Learning Outcomes

### Knowledge:

After taking the course, the students should have a good knowledge of important basic concepts, arguments and positions in practical philosophy.

### Skills:

After taking the course, the students should be able to recognize and demonstrate insight into basic problems and arguments within practical philosophy in different contexts.

### Competence:

The course provides a basis for further studies with the aim of attaining a B.A. in philosophy. In combination with other subjects and disciplines it can form part of an education which qualifies for teaching philosophy in high schools. The course can also serve as support for a deeper understanding of basic questions in connection with the study of other disciplines.

## Overlap

## Pre-requirements

## Recommended previous knowledge

Approved first semester studies. A good proficiency in English is necessary since it ought to be assumed that much of the prescribed reading will be in English. Students are advised to take FIL124 in parallel with or after FIL120 (History of philosophy, from ancient times to the enlightenment) and FIL121 (History of philosophy, from the enlightenment to the 20th century)

## Teaching Methods

Teaching is offered in the form of lectures and seminars. The seminars focus on student activities related to topics from the lectures. Seminars are compulsory.

## Assessment methods

A 4-day Home examination of 3000- 5000 words (not including table of contents, list of references etc.). The paper should be submitted electronically via "Mi side".

Exams in the course are held every semester.

The compulsory activities have to be formally approved before one can take an exam in the course.

The compulsory requirements have to be formally approved in a semester in which there is teaching in the relevant course in order to register for the examination in a semester in which there is no teaching in that course.

## Compulsory Requirements

Oral presentation in groups on the seminar.

Students must attend at least two thirds of the seminars.

An approval of compulsory requirements is valid for three semesters, including the semester in which the approval is given.

## Reading List

The reading list includes an introductory text book and selected excerpts from other texts.

## Grading Scale

From A to F

## Teaching Term

Fall.

## Place of Teaching

Bergen

## Course Unit Evaluation

The teaching will be evaluated from time to time.

## Contact Information

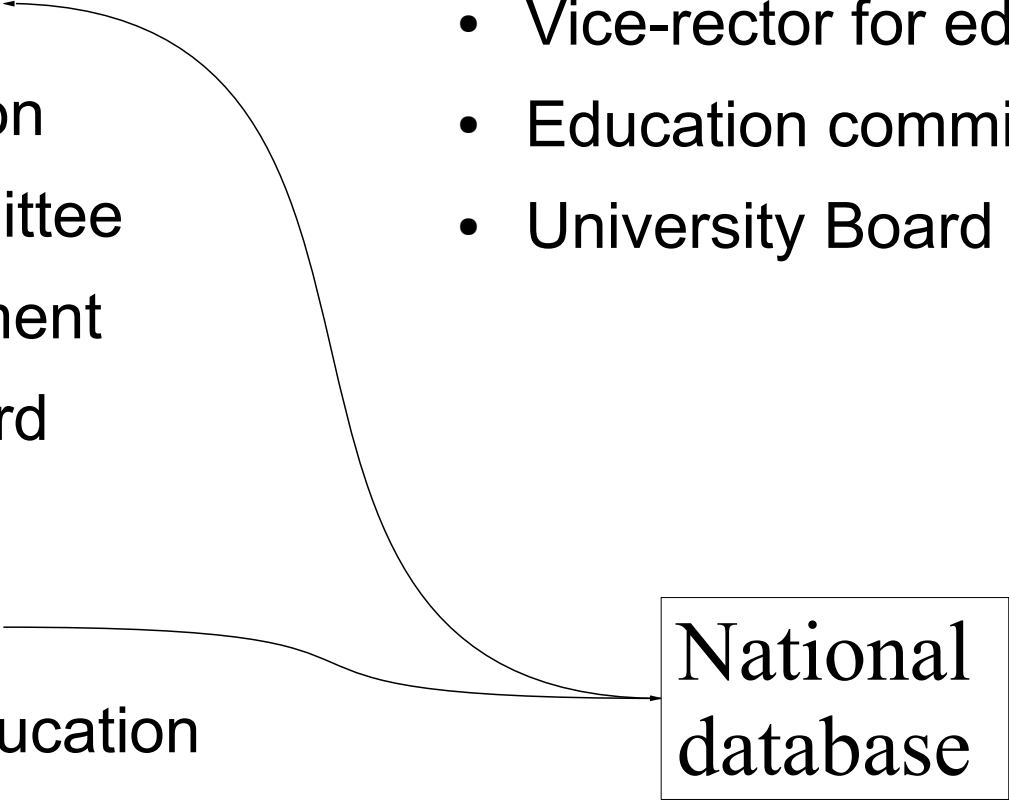
Department of Philosophy

Email: studierettleiar@fof.uib.no

# Document structure

- Simple:
  - 20 sections, each with a headline and one or more paras of prose, some with bulleted lists.
  - (h2, h3, p, a, ul, li)
- But:
  - Controlled vocabulary
  - Standard phrases
  - Translations
  - Cross-references
  - Version control
  - i.e. inter-dependencies of various kinds

# Editing cycle

- Department
    - Teatcher / course owner
    - Administration
    - Head of education
    - Education committee
    - Head of Department
    - Department Board
  - Faculty
    - Administration
    - Vice-dean for education
    - Education committee
    - Faculty Board
  - University
    - Central Administration
    - Vice-rector for education
    - Education committee
    - University Board
- 
- The diagram illustrates the flow of information from various educational levels to a central 'National database'. Two curved arrows originate from the lists: one from 'Administration' under the 'Department' category and another from 'Administration' under the 'Faculty' category. Both arrows point towards a rectangular box labeled 'National database' located in the lower right quadrant of the slide.


National  
database



# Editing cycle

- Revisions two times per year
- Documents maintained in MSWord, OO, ...
- Manual change marking
- Authorized version to be archived in national database:
  - Changes copy-pasted into web interface
- Error-prone
- Errors may have serious legal consequences

# First thoughts

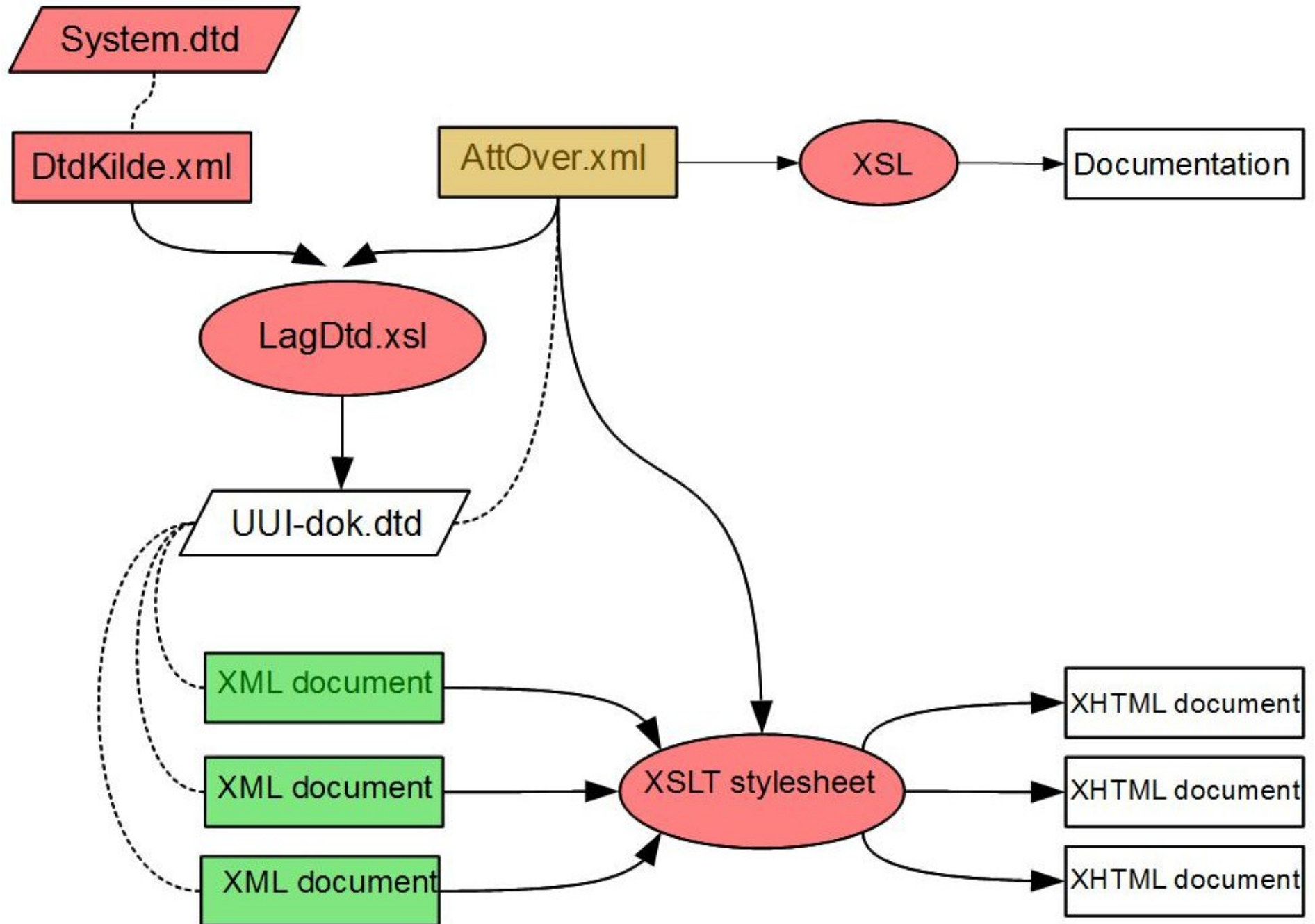
- SVN repository for change tracking
- XML documents as primary format
  - Entity references for standard phrases
  - Customized spell checking for vocabulary control
  - XSLT for output to national database, + HTML, PDF, ...
  - Norwegian GIs, no namespacing
- Challenges:
  - User interface (angle brackets)
  - Users to customize schemas and stylesheets (angel brackets)
  - Version control by diffing XML → OVERLAP! 
- Constraints:
  - Me, and my time

# Surprises, second thoughts

- Entity references inconvenient – attributes better
- XML as production format, XHTML as archival format
  - Diffing of XHTML, not XML
    - Overlap problem (almost) vanished
- Angle brackets no big problem
- Main challenge: Let users customize schemas and styles without learning XSLT or schema language



# Overall design



# Attributes

XML:

```
<Undervisningstad Er="Bergen"/>
```

Output:

**Place of Teaching**  
Bergen

## XML:

```
<Undervisningstad Er="Anna">  
  <Nor>Venezia, Italia</Nor>  
  <Eng>Venice, Italy</Eng>  
</Undervisningstad>
```

## Output:

**Place of Teaching**  
Venice, Italy

## AttOver.XML:

```
<Element id="Undervisningstad">
  <Overskrift>
    <Nor>Undervisningsstad</Nor>
    <Eng>Place of Instruction</Eng>
  </Overskrift>
  <Attributter>
    <SpesialAttributter>
      <Verdi id="Bergen">
        <Nor>Bergen</Nor>
        <Eng>Bergen</Eng>
      </Verdi>
      <Verdi id="Venezia">
        <Nor>Venezia, Italia</Nor>
        <Eng>Venice, Italy</Eng>
      </Verdi>
    </SpesialAttributter>
  </Attributter>
</Element>
```

**XML:**

```
<Undervisningstad Er="Venezia"/>
```

**Output:**

**Place of Instruction**  
Venice, Italy



## AttOver.XML:

```
<Element id="Studierett"> ... <Attributter>
```

```
<SpesialAttributter>
```

```
...
```

```
<Verdi id="Privatist">
```

```
<Norsk>
```

```
<Avsnitt>Emnet er ope for studentar med studierett ved Universitetet i  
Bergen.</Avsnitt>
```

```
<Avsnitt>Personar utan studierett ved UiB kan søkje til Det humanistiske  
fakultet om å få gå opp til eksamen i emnet. For meir informasjon, sjå:
```

```
<Lenke>
```

```
<Mål>http://www.uib.no/hf/utdanning/opptak/saerskilt-...</Mål>
```

```
<Anker>Særskilt eksamen ved Det humanistiske fakultet</Anker>
```

```
</Lenke>
```

```
</Avsnitt>
```

```
</Norsk>
```

```
<English>
```

```
<Avsnitt>The course is open to students admitted at the University of  
Bergen.</Avsnitt>
```

```
<Avsnitt>Persons who are not admitted as students at the University of  
Bergen may apply to the Faculty of humanities to be admitted to  
examination in the course. For more information, contact the
```

```
<Lenke>
```

```
<Mål>mailto:studierettleiar@hf.uib.no</Mål>
```

```
<Anker>Student Advisor</Anker>
```

```
</Lenke>
```

```
</Avsnitt>
```

```
</English>
```

```
</Verdi>
```

```
...
```

```
</SpesialAttributter>
```

```
</Attributter>
```

```
</Element>
```

# But is that really structured attributes?

**Stefan Ram 2004:**

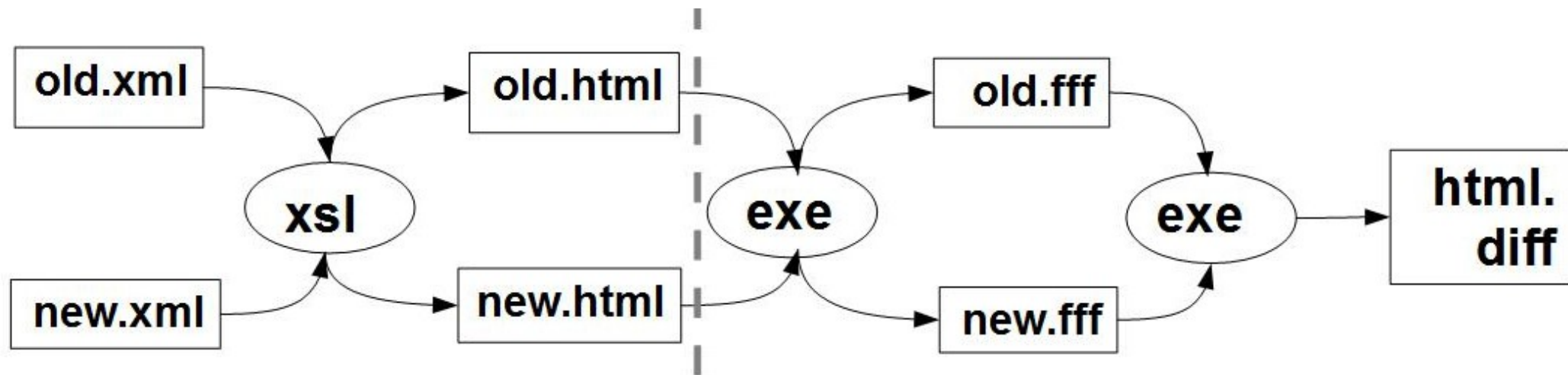
```
< tower
  height = <meterlength>40</meterlength>
  Name = "miller tower"
/>
```

**Michael Kay 2013:**

```
<purchaseOrder
  ...
  shipTo = <country="US" [
    <name "Alice Smith">
    <street "123 Maple Street">
    <city "Mill Valley">
    <state "CA">
    <zip 90952>
  ]>
  ...
>
```

# Version control

- Diffing done on xhtml, not xml
- Xhtml files converted to fffs, which are diffed and output to xhtml, preserving structure of one doc
- <add>s and <del>s split so as to never break hierarchy



# Version control

- Inserted tags are quoted and marked as inserted

Dei 10 valfrie studiepoenga av spesialiseringa kan veljast frå følgjande emne:

FIL231 (Ope emne - 10stp.)

FIL232 (Ope emne med redusert oppgåvestorleik - 5stp.)

FIL233 (Filosofien i antikken - 10stp.)

[FIL239 \(Filosofi og kjønn - 10stp.\)](FIL239.html)

</li>

<li>LOG200 (Modallogikk - 10stp.)

- Deleted tags are quoted and marked as deleted

Gjennom programmet blir studentane prøvd på ulike **måtar**,  
~~eksempelvis ved skuleeksameneller munnleg prøve.~~ ~~</p>~~ ~~<p>~~  
måtar. Sjå emneplanen for det einskilde emnet.

# Metaphysics: where is the document?

## Contact Information

Department of Philosophy

Email: [studierettleiar@fof.uib.no](mailto:studierettleiar@fof.uib.no)

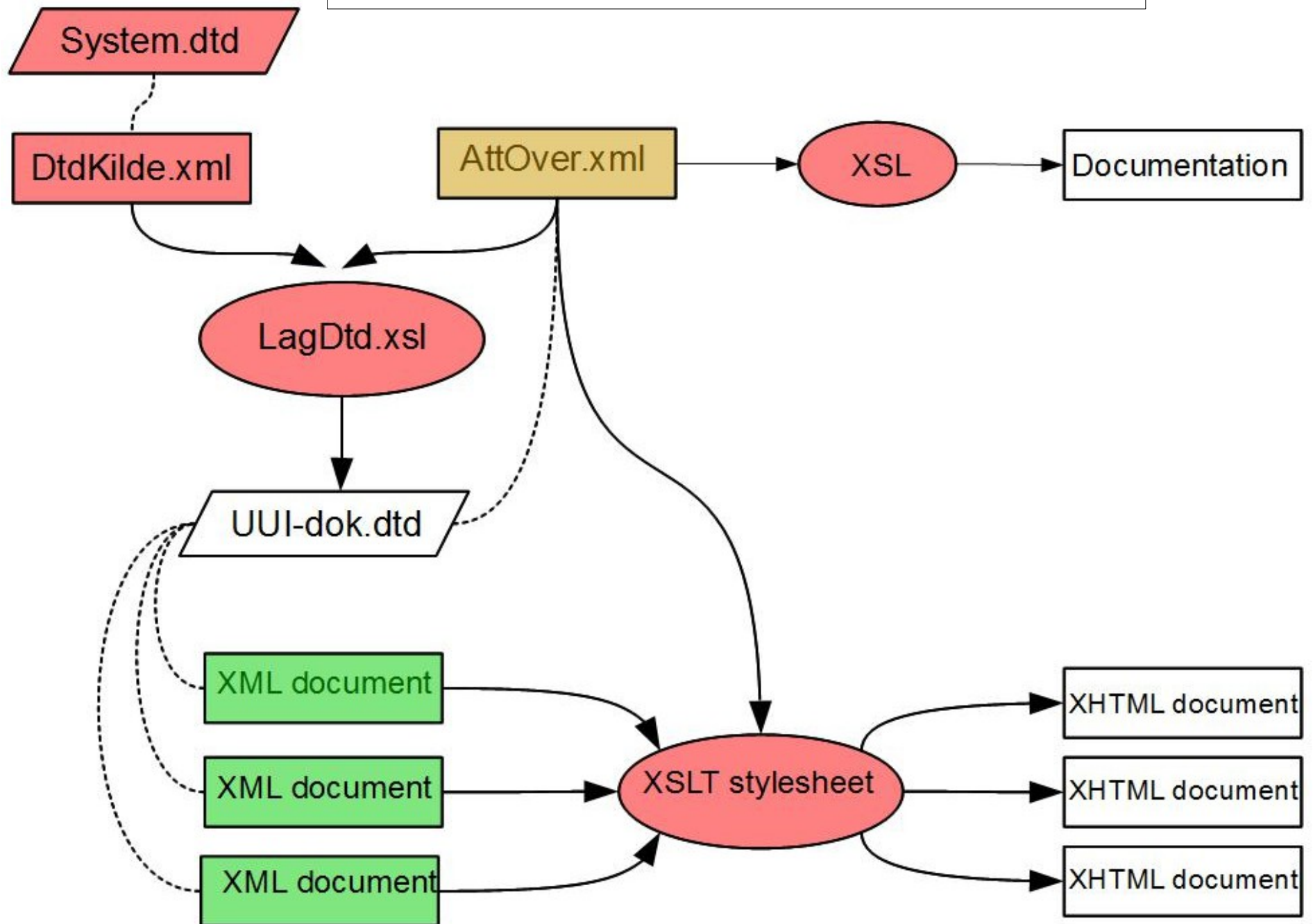
```
<Kontaktinfo Er="FoF-kontakt"/>
```

```
<h3>Contact Information</h3>
```

```
<p>Department of Philosophy</p>
```

```
<p>Email: <a href="studierettleiar@fof.uib.no">  
  studierettleiar@fof.uib.no</a></p>
```

<Kontaktinfo Er="FoF-kontakt"/>



```
<Kontaktinfo Er="FoF-kontakt"/>
```

## AttOver.XML:

```
<Element id="Kontaktinfo">
  <Overskrift>
    <Nor>Kontaktinformasjon</Nor>
    <Eng>Contact Information</Eng>
  </Overskrift>
  <Attributter>
    <SpesialAttributter>
      <Verdi id="FoF-kontakt">
        <Norsk>
          <Avsnitt>Institutt for filosofi og førstesemesterstudier</Avsnitt>
          <Avsnitt>E-post: <Lenke>
            <Mål>studierettleiar@fof.uib.no</Mål>
            <Anker>studierettleiar@fof.uib.no</Anker>
          </Lenke></Avsnitt>
        </Norsk>
        <English>
          <Avsnitt>Department of Philosophy</Avsnitt>
          <Avsnitt>Email: <Lenke>
            <Mål>studierettleiar@fof.uib.no</Mål>
            <Anker>studierettleiar@fof.uib.no</Anker>
          </Lenke></Avsnitt>
        </English>
        <Kort/>
      </Verdi>
    </SpesialAttributter>
  </Attributter>
</Element>
```

## Std.xsl

```
<xsl:template match="Kontaktinfo">
  <xsl:call-template name="Overskrift"/>
  <xsl:call-template name="Attributt"/>
  <xsl:apply-templates/>
</xsl:template>

<xsl:template name="Overskrift">
  <xsl:element name="h3">
    <xsl:call-template name="Overskrift-tekst"/>
  </xsl:element>
</xsl:template>
```

## Gen.xsl

```
<xsl:template name="Overskrift-tekst">
  <xsl:apply-templates
    select="document('AttOver.xml')/*[@id=(name(current()))]/Overskrift"/>
</xsl:template>

<xsl:template name="Attributt">
  <xsl:if test="not((@Er='Ingen') or (@Er='Anna'))">
    <xsl:choose>
      <xsl:when test="((@Er='Anna') and ($Språk='Kort'))">
        <xsl:text> [...]</xsl:text>
      </xsl:when>
      <xsl:otherwise>
        <xsl:apply-templates select="document('AttOver.xml')
          /*/Element[@id=(name(current()))]          /*[@id=(current()/@Er)]"/>
      </xsl:otherwise>
    </xsl:choose>
  </xsl:if>
</xsl:template>
```



# Where is the document?

## Contact Information

Department of Philosophy

Email: [studierettleiar@fof.uib.no](mailto:studierettleiar@fof.uib.no)

```
<Kontaktinfo Er="FoF-kontakt"/>
```

```
<h3>Contact Information</h3>
```

```
<p>Department of Philosophy</p>
```

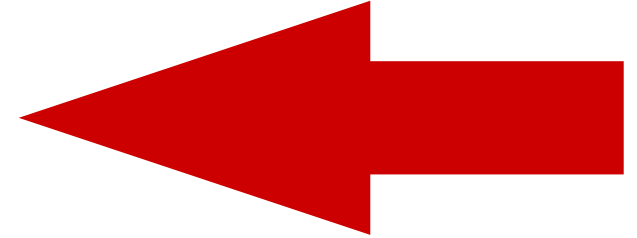
```
<p>Email: <a href="studierettleiar@fof.uib.no">  
  studierettleiar@fof.uib.no</a></p>
```

# Where is the document?

## Contact Information

Department of Philosophy

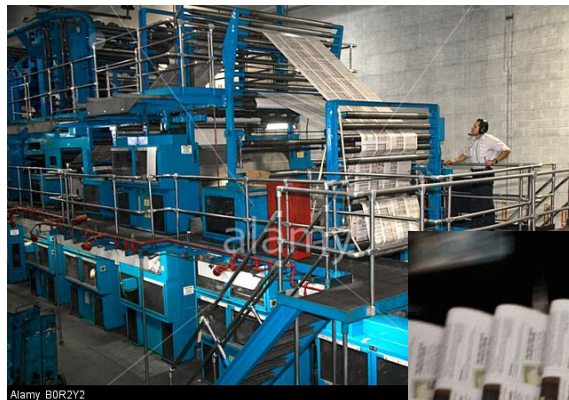
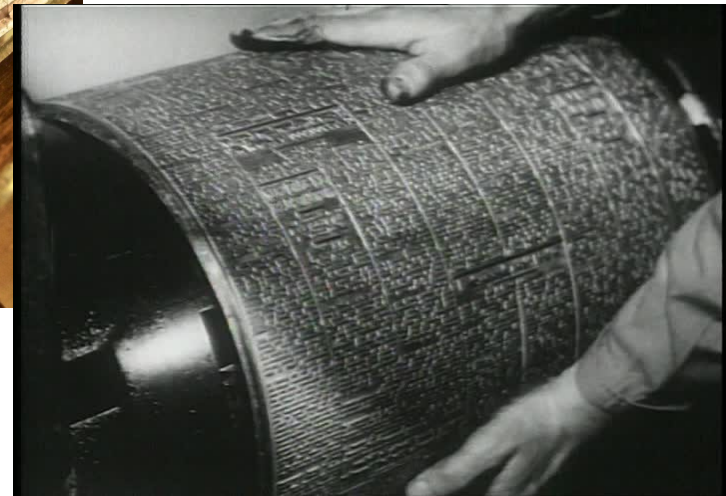
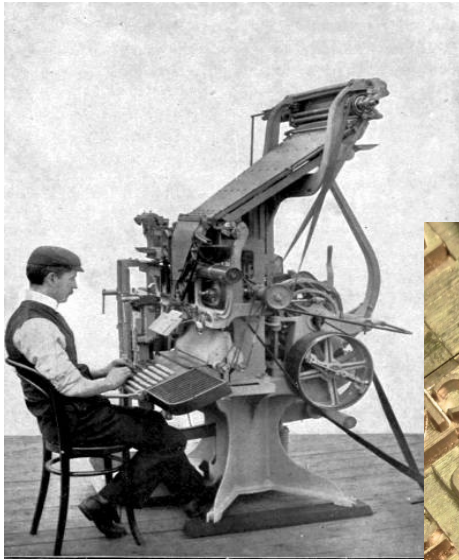
Email: [studierettleiar@fof.uib.no](mailto:studierettleiar@fof.uib.no)



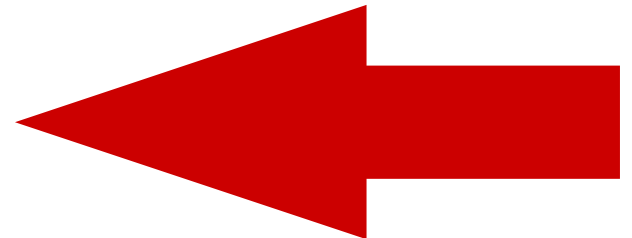
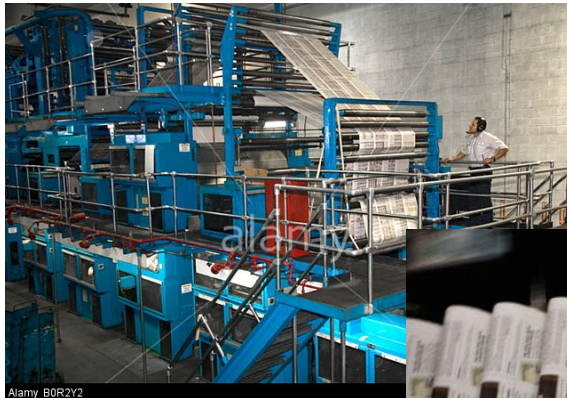
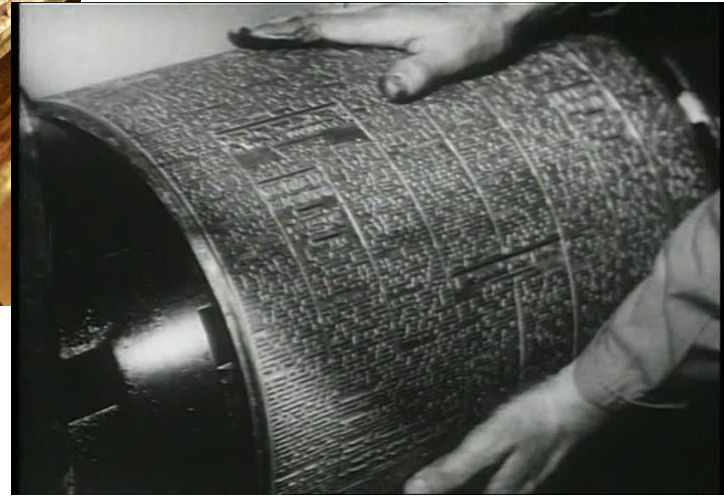
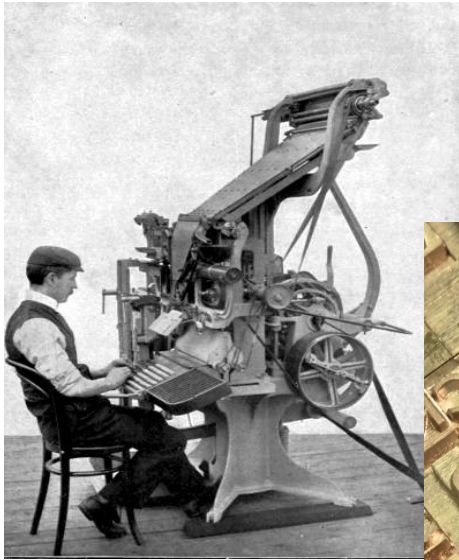
```
<Kontaktinfo Er="FoF-kontakt"/>
```

```
<h3>Contact Information</h3>  
<p>Department of Philosophy</p>  
<p>Email: <a href="studierettleiar@fof.uib.no">  
  studierettleiar@fof.uib.no</a></p>
```

# Where is the document?



# Where is the document?



# Abstract objects?

- Immutable
  - Non-spacial
  - Atemporal
- Causally inert



Cynthia Macdonald: *Varieties of Things: Foundations of Contemporary Metaphysics*, Wiley-Blackwell 2005

**Wholly and completely present in  
how many places at the same time?**

		<b>?</b> <b>Particular</b>	<b>*</b> <b>Universal</b>
<b>How many in the same place at the same time?</b>	<b>?</b> <b>Concrete</b>	Apple	
	<b>*</b> <b>Abstract</b>	Event	Color

- Are documents **concrete universals**?  
– What???

Time to stop –

**Thank you**