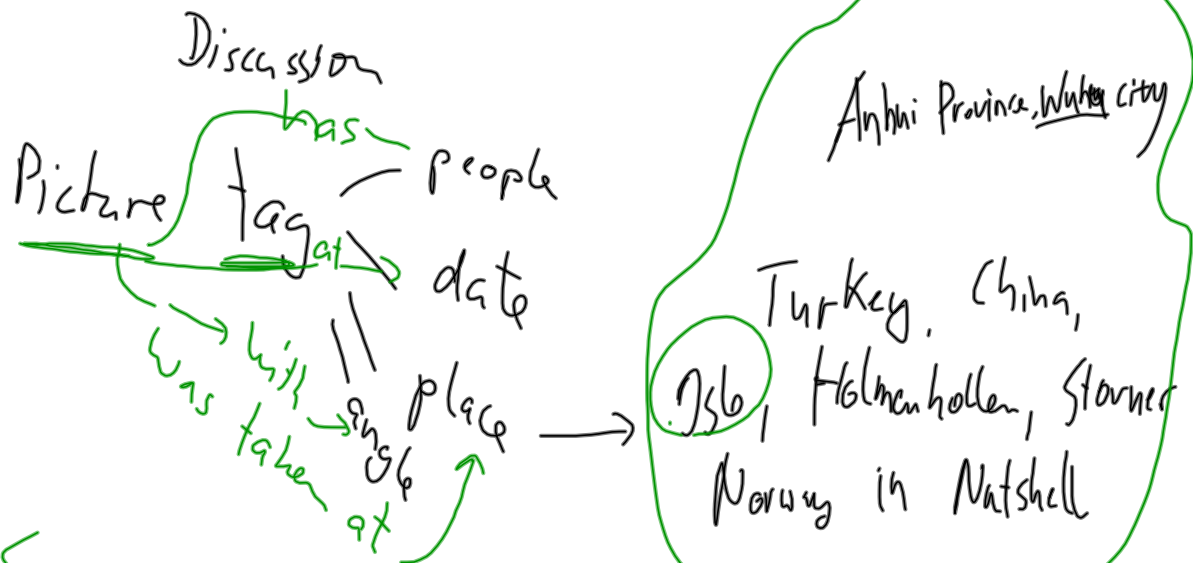


0915 - 0945 3 intro Semantics

4 x 15 Topics/Semanto



Semantics:

Outroze: Triplet → Store

Search oslo  
rdf



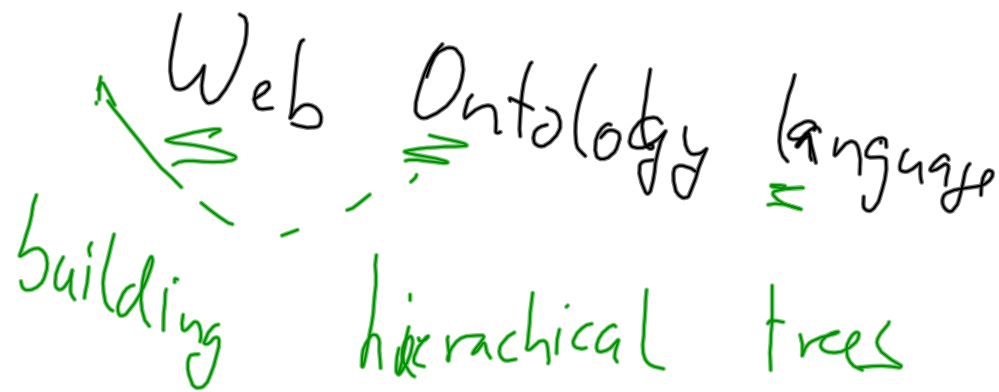
infer → find implicit knowledge

reasoning → run rules to check  
↳ consistent  
↳ extract knowledge

Structure in a semantic database (rdf)



• owl  
Protégé



UNIK4710 - CWI

Intro to the Semantic Web - x

YouTube - Broadcast Yours - x

cwi.unik.no/wiki/UNIK4710

■ Introduction (Date 20 January 2012 Keywords Preferences Semantic Technologies Context)

Note: recorded lecture Attach:record.png (in .wmv) works only if connected with VPN to UNIK. Streaming with <mms://lux.unik.no/301> works without VPN (copy and paste the link into a browser window).

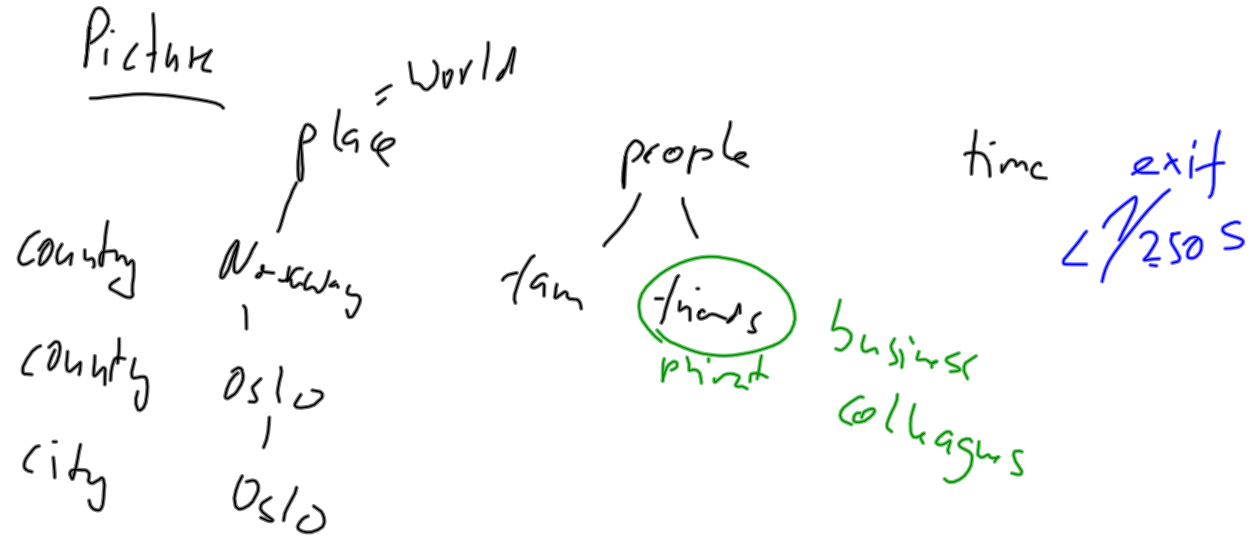
```

graph TD
    Thing --> SemanticTechnologies
    Thing --> Context
    SemanticTechnologies --> Protege
    SemanticTechnologies --> Reasoner
    SemanticTechnologies --> SemanticMediaWiki
    SemanticTechnologies --> SemanticFormats
    Context --> DynamicMoving
    Context --> Static
    Context --> SlowMoving
    Protege --> Protege41[Protege4.1]
    Protege --> Protege345[Protege3.45]
    Reasoner --> ExternalRules
    Reasoner --> InternalRules
    DynamicMoving --> Indoor
    DynamicMoving --> Outdoor
    Static --> PublicPlace
    Static --> PrivatePlace
    Static --> UnknownPlace
    SlowMoving --> Home
    SlowMoving --> FriendsPlace
    SlowMoving --> UnknownPlace
    Indoor --> PublicPlace
    Indoor --> PrivatePlace
    PublicPlace --> Home
    PublicPlace --> FriendsPlace
    PrivatePlace --> FriendsPlace
  
```

Lecture and Material from earlier years

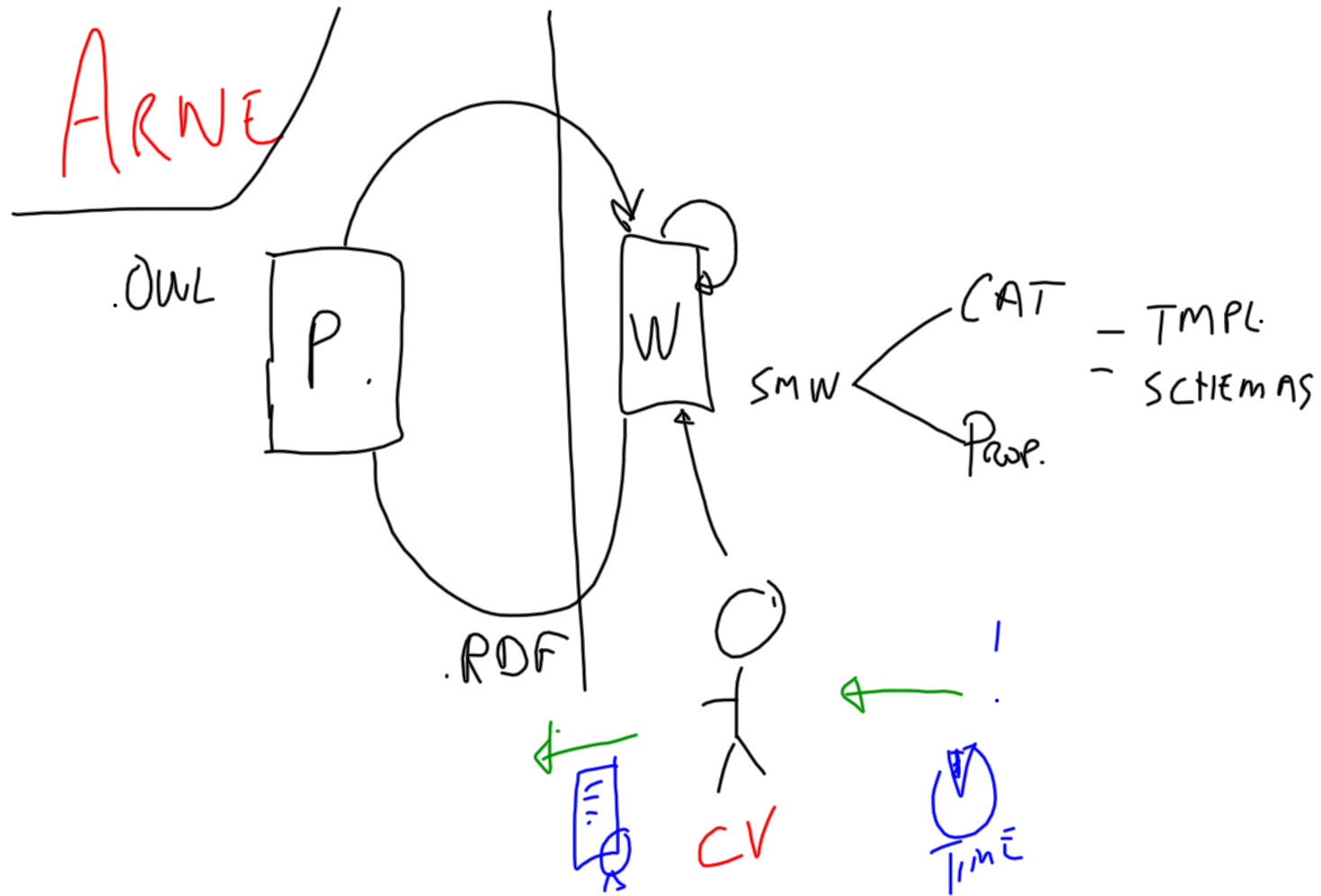
■ are located at [wiki.unik.no](http://wiki.unik.no) [1]

cwi.unik.no/wiki/File:SemanticTechnologies.png



Which pictures were taken in sunlight in Oslo?

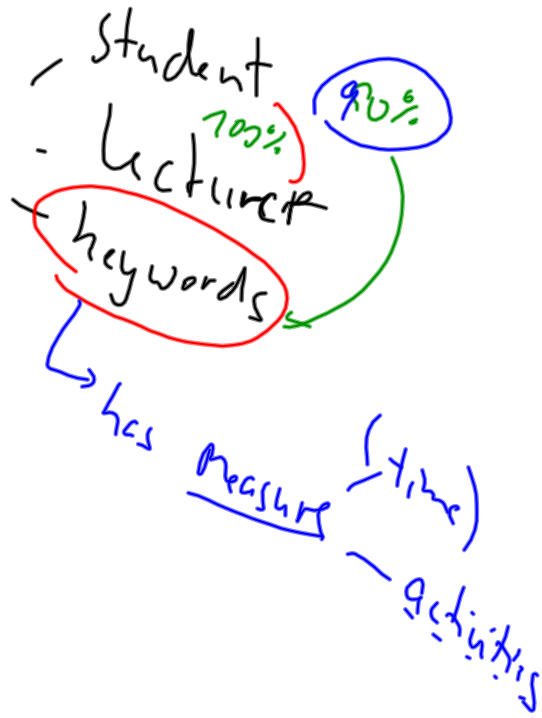
- place
- time
- exit, shutter



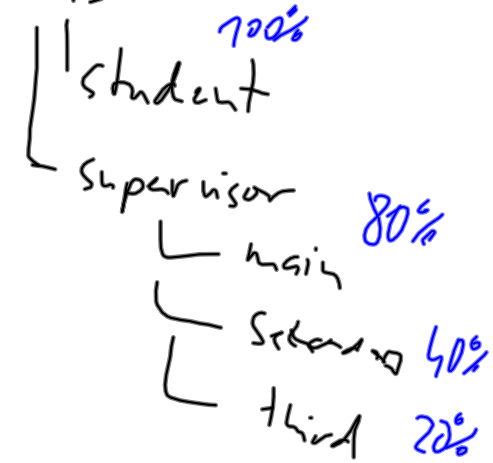
University

Courses ←

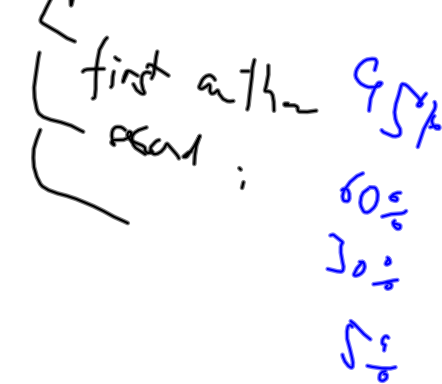
- Lectures
- ...



Thesis

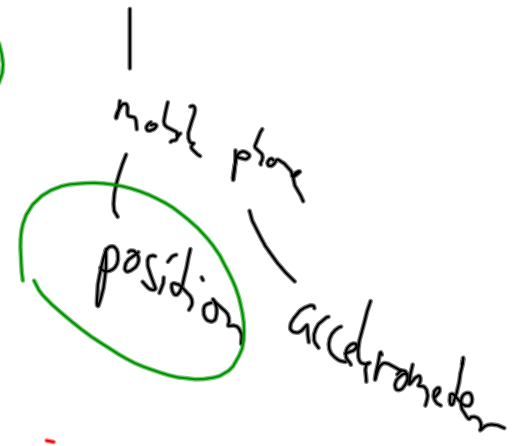
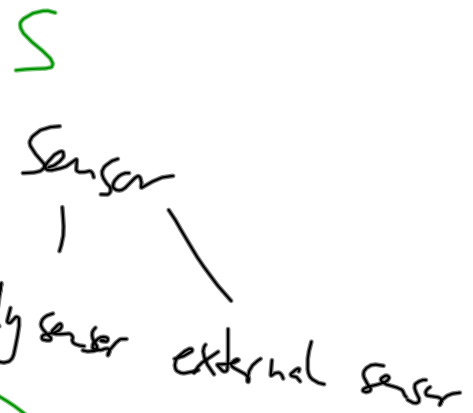
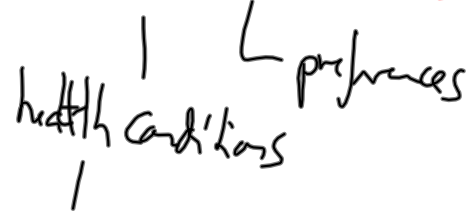


Paper





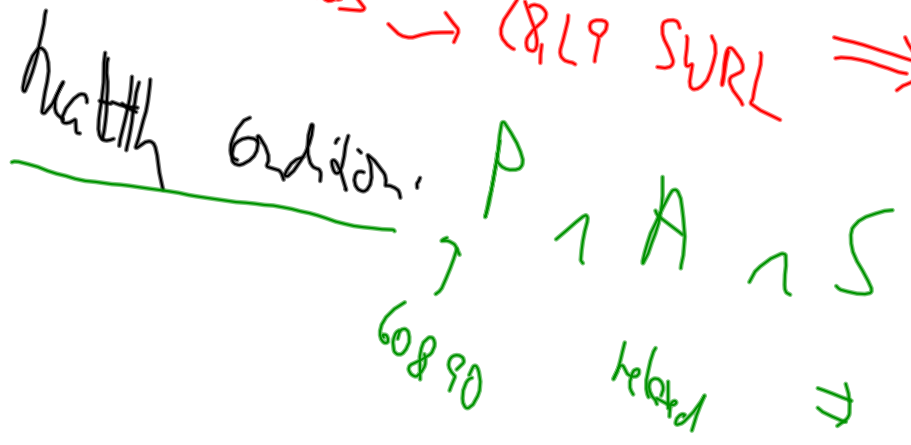
L2 / Serhat P Ontology



L4 Protege + L5, L6  
L6, L7 Rules

→ (8, L9 SWRL ⇒ OWL API

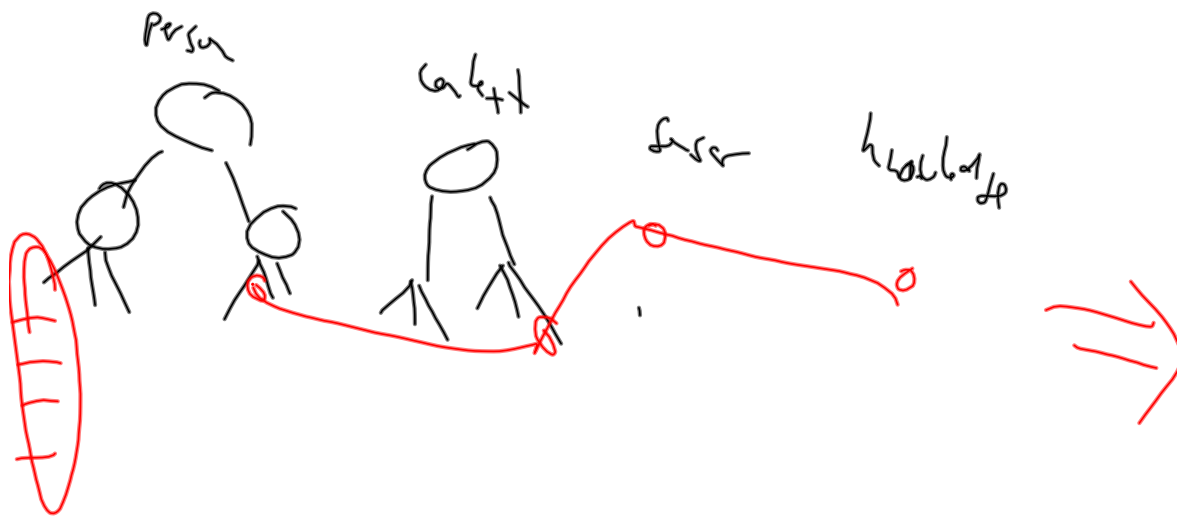
just ...



Common

Context-aware preferences

- Location
- activity
- Who....



UNIK4710 - CWI Category:Context - CWI Intro to the Semantic Web YouTube - Broadcast Yours cwik.unik.no/wiki/Special:Ex

cwi.unik.no/wiki/Context

- MediaWiki FAQ
- Semantic Wiki help
- Forms (create or edit)**
  - Add User
  - Add ActionItem
  - Add Meeting
  - Add (Master/Phd)Thesis
  - Add a paper
  - Add a lecture
  - Add Course
  - Project Proposal
  - Create a Project
  - Add Task
  - Add Organisation
  - Interested in PhD?
- External links**
  - UNIK wiki
  - pSHIELD internal
  - JBV project
  - UNIK home page
  - old Wiki
- Support Forms**
  - Bug Innobørs
  - Bug Yeboo
- Toolbox**
  - What links here
  - Related changes
  - Special pages
  - Printable version
  - Permanent link
  - Browse properties

**Context-aware services** are services which will take into account the context of the user and adapt the services towards these conditions. Typically rules or suggestions from a **Reasoner** are used for adaptation of the service.

```

graph LR
    Context((Context)) --- Position
    Context --- CurrentWork
    Context --- Movement
    Context --- Surrounding
    
    Position --- Indoor
    Position --- Outdoor
    
    Indoor --- PublicPlace[Public Place]
    Indoor --- PrivatePlace[Private place]
    
    Outdoor --- InTraffic[in traffic]
    Outdoor --- InNature[in nature]
    
    CurrentWork --- Meeting
    CurrentWork --- PCwork[PC-work]
    CurrentWork --- Phone
    CurrentWork --- Sports
    CurrentWork --- Leisure
    
    Movement --- DynamicMoving[Dynamic Moving]
    Movement --- WalkingSpeed[Walking speed]
    
    WalkingSpeed --- Static
    WalkingSpeed --- Alone[alone]
    
    Surrounding --- WithFriends[withFriends]
    Surrounding --- WithColleagues[withColleagues]
    Surrounding --- InACrowd[in a crowd]
    
    PrivatePlace --- Home
    PrivatePlace --- FriendsPlace[FriendsPlace]
    PrivatePlace --- Unknown
    
    InTraffic --- Walking
    InTraffic --- Bicycle[bicycle]
    InTraffic --- Motorbike[motorbike]
    InTraffic --- Car[car]
    InTraffic --- Bus[bus]
    InTraffic --- Train[train]
    InTraffic --- Boat[boat]
  
```

**Subcategories**

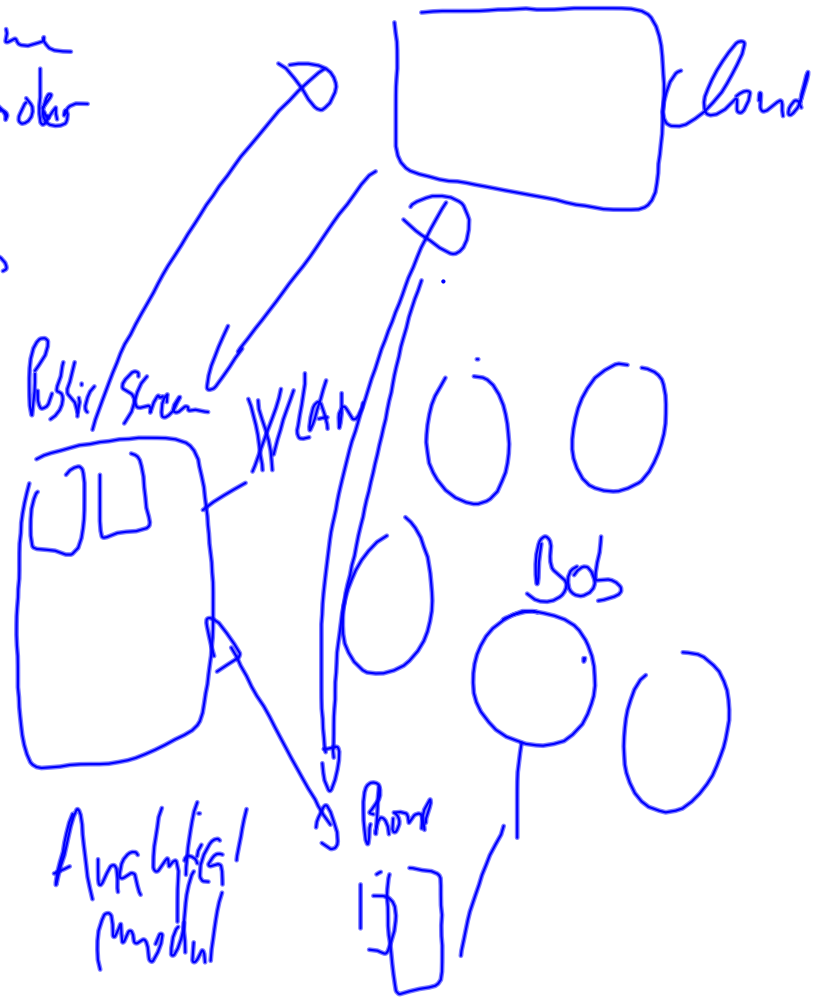
Fabrica

- mobile phone
- public screen

- Content recom engine
- profile and preference provider
- Wireless com
- context awareness

→ Context based Services

- Recommender engine
  - local analytics module
  - Context awareness
- local distribution service
  - User
  - Content repo



Susana

