

Towards an *Agile* approach to building application profiles

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Objective

- in general, our approach is to bring (potential) users into the process at the earliest opportunity, and to develop the application profile using **Agile** development techniques
- we have taken some lessons from HCI and software engineering disciplines which give us the related techniques of:
 - **prototyping**
 - **user (usability) testing**
- we aim to re-use or prototype tools and approaches which are **easy** and **cheap** to deploy
- our aim is to **complement** the **Singapore Framework**

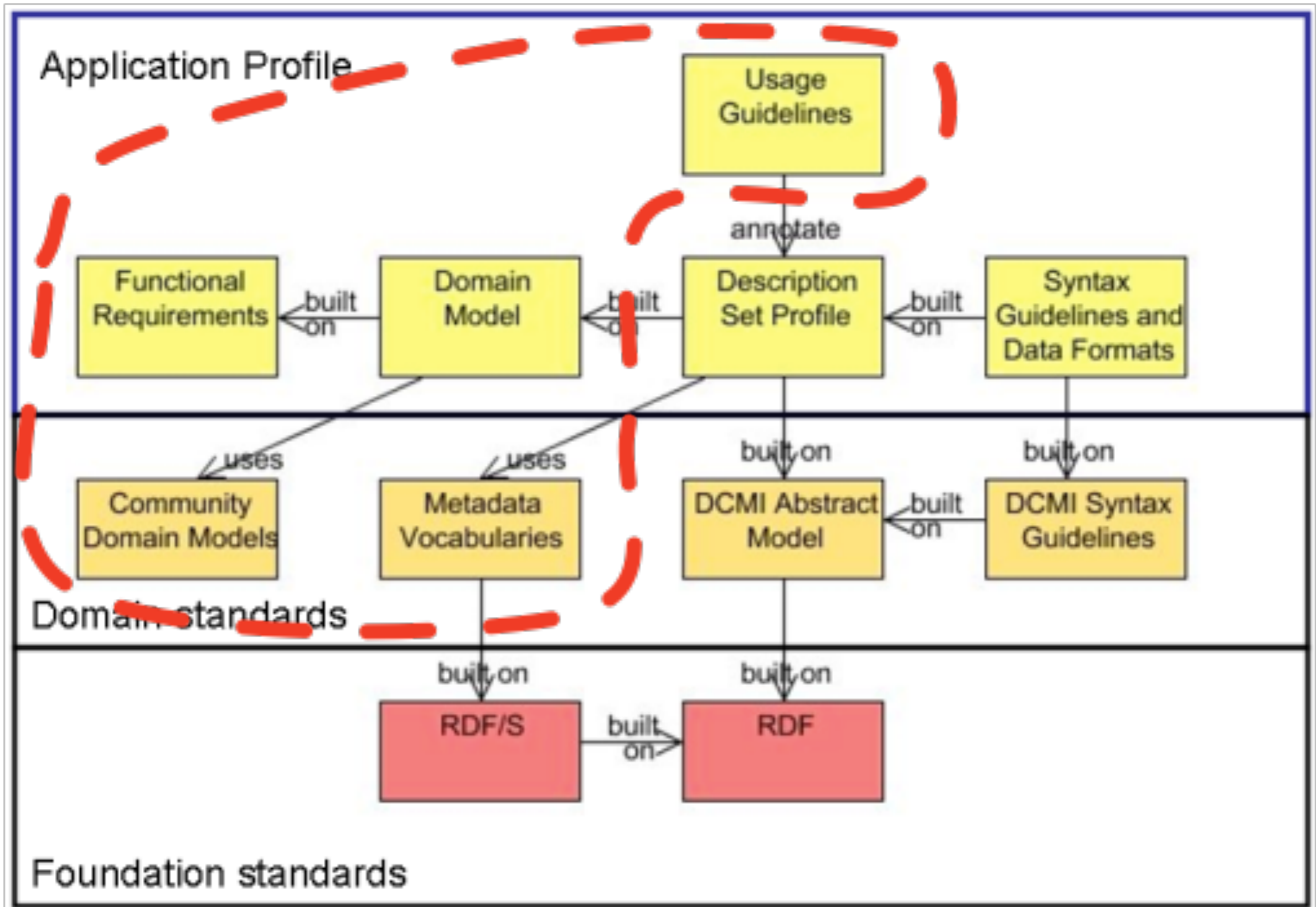
Why Agile?

- we think that the Application Profiles we are involved in developing could benefit from an *Agile* approach
- Agile emphasises:
 - close involvement of users, or potential users, at each stage of development
 - working solutions over comprehensive documentation
 - responding to changing requirements/ understanding
- agile development aims to reduce risk of failure

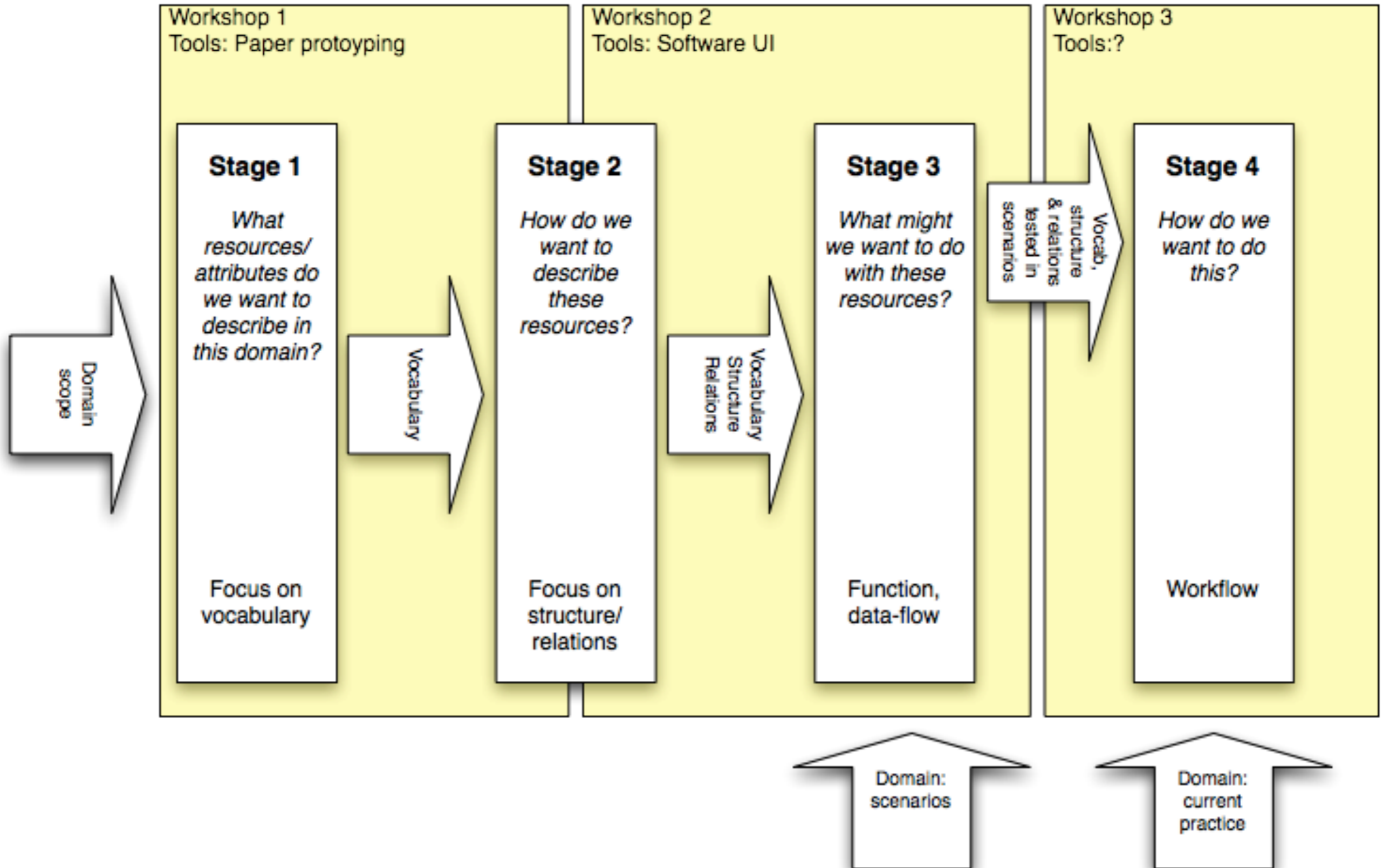
Singapore Framework - scope

- scope of our work
 - functional requirements (mandatory) ✓
 - domain model (mandatory) ✓
 - description Set Profile (mandatory)
 - usage guidelines (optional) ✓
 - encoding syntax guidelines (optional)
- we have concentrated on the the early processes, especially the functional requirements gathering and early modelling stages

Singapore Framework - scope



Iterative development



Progress

- beginning to demonstrate how:
 - decision making about functional requirements can be based on evidence from user-engagement
 - **usability** of domain models can be tested at early stages of development
 - user engagement can be both valuable and **fun** :-)

The pay-off

- testing and checking early can keep development on-track - avoids expensive mistakes
- application profiles can be re-tested later on, as functional requirements evolve with external developments
- **confidence** that the application profile has passed some preliminary usability testing (**evidence** for this)
- **user-engagement!**
- **user-engagement!!**
- **user-engagement!!!**
- **user-engagement!!!!**

Objective – part 2

- Prerequisite for collaborative work:
The ability to communicate effectively
- Prerequisite to effective communication:
Sharing – common ground, mutual understanding

...Speaking the same language

This is harder than it seems

Terms

- Q. What's in a domain?
- A. Easiest way to find out – ask.
- Free-listing is “a simple technique for gathering data about a specific domain or topic by asking people to list all the items they can think of that relate to the topic.”
- Output: Quantitative, reusable list of ‘concepts and things’

Example

	Articles, Books, Thesis
Author ✓	
Title ✓	Length (e.g.)
- Article / chapter / paper	Language
- Journal / book / confer	Page Count
- Series	Synopsis / Abstract
subject keywords ✓	Cover Image
Abstract / summary ✓	Preface
Date published ✓	Purpose (e.g. MSc.)
Page numbers	Expected Audience
Publisher ✓	Subject
[Thesis] degree	Version Number
[Thesis] award	Author(s)
Identifiers -	ISBN
URL ✓	Original Publisher
Language ✓	Source (e.g. department, library)
Edition / version	Reference List
Foreword by,	Similar Book Entities (e.g. related)

author's

address

tools used

software used

Example 2

Author ✓
 Title ✓ - Article / chapter / paper
 - Journal / book / conference
 - Series
 subject keywords ✓
 Abstract / summary ✓
 Date published ✓
 Page numbers ✓, volume / number ✓
 Publisher ✓
 [Thesis] degree ✓
 [Thesis] awarding institution ✓
 Identifiers - ISBN, ISSN, DOI, e
 URL ✓
 Language ✓
 Edition / version ✓
 Forwards by ✓

Articles, Books, Thesis

Length (e.g.)
 Language
 Page Count
 Synopsis / Abstract
 Cover Image
 Preface
 Purpose (e.g. MSc.)
 Expected Audience
 Subject
 Version Number
 Author(s)
 ISBN
 Original Publisher
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Free-listing - analysis

- Very much like social tag analysis
- Just a very large data collation exercise
- Leading to a list of terms and term frequencies (synonym identification is also an issue, but tends to fall out in the next stage, so this analysis is an ongoing process)
- Other data sources for this stage could include social tagging and machine analysis of a domain – general area of ontology creation and evaluation

Structures

- Now that we have some idea of ‘things’ (could be entities, functions/methods, properties, classes...)
- Users have something to ‘play’ with
- Card sorting for classification is a well-known approach, which we use here
- Principle: The important point is not that participants are in effect creating a taxonomy. It is that they are coming to a shared understanding of the ‘things’ involved in the domain, and how they see them as fitting together.

Card Sorting on Paper

Card sorting - analysis

- It's not a question of 'right' or 'wrong'
- An opportunity to collect evidence and understand user viewpoints
- Again, quantitative outputs available (eg. 'card sorting diffs' are possible)

Contexts of use

- Now that we have a strawman prototype, we can proceed to ask and answer questions about it
- Simple questions can check the intuitiveness of the sort
- More complex questions can teach us more about how the prototype would fit into user-contributed workflows
- 1. Collect workflows
- 2. Storyboarding using the prototype to solve the workflow

Same Thing, But On The Web: MrVobi

- A web-based tool supporting the stages described here
- Simple, basic prototype
- Ongoing development
- Handles data collection and visualisation
- Accessible

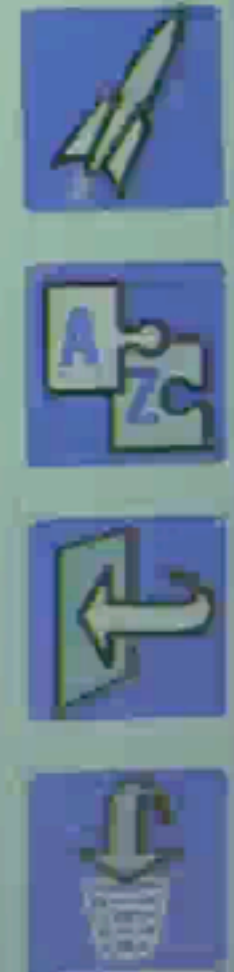
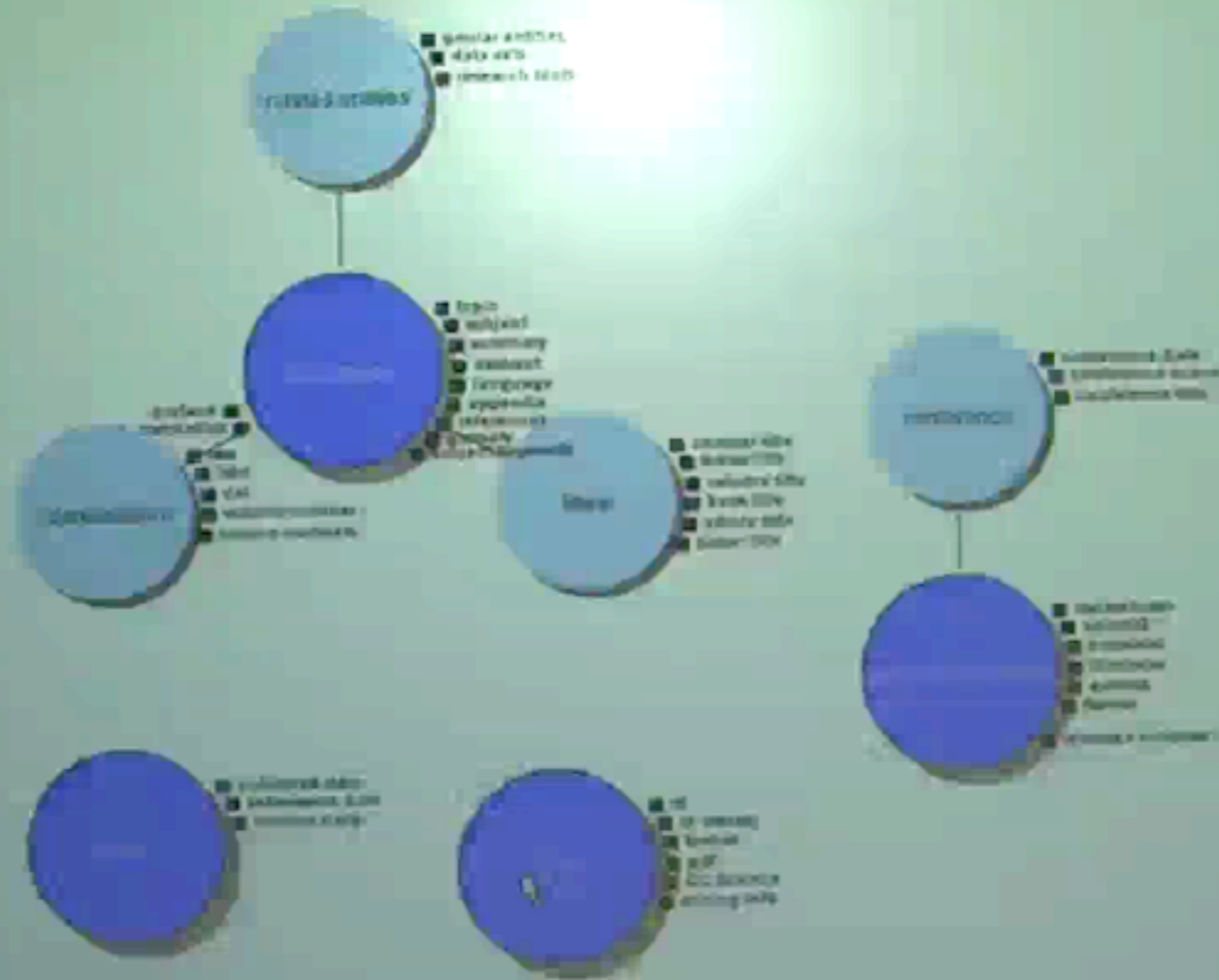
MrVobi

Card Sorting on the big screen

- Very visual interface
- For use in collaborative workspaces
- Supports touchscreen interfaces, etc
- (but less accessible for visually impaired)
- What's in an interface? What difference does the use of different media make? Don't know yet, but we're investigating.

video->

Topic: eprints



questions?