

EnTag: STFC Demonstrator Author Study Analysis

Document details

Author:	Brian Matthews, Catherine Jones, Bartłomiej Puzoń
Date:	23 February 2009
Version:	1.0
Document Name:	EnTag-D4.2-STFC-study.doc
Notes:	Revised after feedback
Demonstrator	http://www.ukoln.ac.uk/projects/enhanced-tagging/demonstrators/

Summary

This document reports the author evaluation study undertaken at STFC as part of the JISC sponsored EnTag project.

Acknowledgements

This research was funded by the Joint Information Systems Committee (JISC) of the Higher and Further Education. Thanks to the STFC authors who participated in the evaluation process.

Contents

1	Test setting1			
	1.1	Introduction	1	
	1.2	Participants	1	
	1.2.1 Characteristics of participants		1	
	1.3	Objectives	2	
	1.4	Methodology	3	
	1.5	Shortcomings of methodology	3	
	1.6	Session format	1	
2	2 Data collection4			
3 Analysis		5		
	3.1	Number of tags	5	
	3.2	Effect of existing keywords	3	
	3.3	Choosing a tag	3	
	3.4	Observations	7	
	3.5	Post-task Questioning	3	
4	Conclusions10			
5	5 Appendices12			
	Appendix 1: The Tagger Tool12			
	Appendix 2: Instructions for Authors14			
	Appendix 3: Test sheet used by observers17			

STFC Demonstrator User Study Analysis

1 Test setting

1.1 Introduction

The EnTag project aims to evaluate the relative merits of free-text tagging and tagging selecting from controlled vocabularies. This will be carried out via test code and studies with different groups of users. This document describes the evaluation which STFC has undertaken with a small group of authors within STFC

1.2 Participants

STFC provides an institutional repository of publications for the staff and users of its UK laboratories (*ePubs <u>http://epubs.stfc.ac.uk</u>*). Most staff who are scientifically active and publish paper will deposit papers (or records of papers) within the repository.

STFC targeted users as *authors* of papers. Thus a group of users were chosen who:

- are working within one discipline for consistency and ease of comparison;
- each have published refereed papers (appearing in journals, conferences or refereed workshops) within the discipline;
- each have deposited a number (> 10) papers within the ePubs repository, and can thus be considered a regular author and depositor.

A minimum sample size of 10 subjects was the aim for the evaluation trial. The sample set of authors was by necessity small and thus the results are qualitative rather than statistical, but it was considered that interesting observations may nevertheless be made.

The coverage of the ePubs repository is across a wide range of scientific disciplines, reflecting the wide range of scientific disciplines which are represented in the staff of STFC. For the purposes of this study, we considered staff within one specific discipline, that of computer science and information technology. This group were considered as they had a good record of deposit, were familiar with the technology, and there was an easily available controlled vocabulary.

The ACM Computing Classification Scheme was proposed as a target subject classification. The ACM computing classification¹ is a subject classification system for computer science devised by the Association for Computing Machinery. Its main purpose is to classify papers which are submitted to the various ACM journals. Thus the scheme has a widespread awareness and authority within the computing science community.

1.2.1 Characteristics of participants

All the STFC participants were male. We asked for the IT experience in years as an indicator of exposure to information systems and the figure below shows the results.

¹ <u>http://www.acm.org/about/class/</u>



Of the ten participants, three were not native English speakers. The native languages included Aramaic & Arabic, Spanish and Chinese. All participants had published at least 10 items each, with a minimum of 11 and a maximum of 117.

None of the participants identified themselves as frequent taggers, although one did use controlled vocabulary as part of his role. Only two participants had any knowledge of the ACM thesaurus before the tests, though several others were aware that it existed.

1.3 Objectives

In contrast to the UKOLN study focussing on users, the participants were closely acquainted with the content and context of the papers being tagged and thus provided feedback on the comparative usefulness of free and controlled tags available to them. It was presumed that the authors would like their work to be accurately indexed so that it can be accurately catalogued and retrieved from a search, and also knowing the work, they can accurately pick appropriate terms.

The exercise sought to address a number of questions on the improvement of tagging from an author's perspective.

- What do they feel the purpose of tags is, and how would they like them to be used?
- Whether they consider using controlled vocabularies a worthwhile exercise over and above free tagging. Is the overhead of browsing and selecting from a controlled vocabulary worth the more accurate and consistent tags? Or is does freedom which free tags offer to allow them to pick their own terms give a more satisfactory result in their terms? (*accuracy* and *efficiency*)
- Do they consider the controlled vocabulary makes them consider tags which they would not have otherwise considered? (*exhaustivity*)
- Do they choose terms at a deep level in the hierarchy? (*specificity*)
- Is the controlled vocabulary structure (hierarchy, related terms) intuitive and easy to use?
- Is the user interface intuitive and easy to use?
- User satisfaction (is this something which they would like to see provided as a feature of the input system to ePubs?)

- Are there any further tools and uses for tags (controlled or free) which the author would like to see?

1.4 Methodology

STFC has built a tagging interface as an adjunct to ePubs (see Appendix 1). This interface allows the user to enter and review his or her tags, both as free text and via a selection from a controlled vocabulary. It also provides a tag cloud, built up over time, which allows the user to select tags from either all previously entered tags, or just their own.

The evaluation used the following methodology.

- 1. An author will be invited to a session of approximately 40 minutes.
- 2. A worksheet will be provided for the author, with notes and guidance on the task. A copy of this worksheet is provided in Appendix 2.
- 3. The author will be invited to use the tagging interface to select tags for a number of papers which he or she has authored or co-authored (6 would be a reasonable number). This should take no more than about 20 minutes.
- 4. The author will be free to select appropriate descriptive tags from any of the three approaches offered (free text, controlled vocabulary, tag cloud) as their preference.
- 5. At a later point in the trial, the observers may suggest that they try a different ways of tagging using a different component of the tool in order to gauge their response to a different approach to their normal preference.
- 6. The tagging system will collect a number of statistics on the session.
 - \circ Tags collected on the paper
 - Length of time to tag a paper.
 - Proportion of free to controlled tags
 - Number of tags selected
 - Depth of hierarchy of tags selected
 - Tags deleted.
- 7. The session will be observed by a member of the EnTag team, who has a observer guidance sheet (see Appendix 3 for a copy of the notes for observers).
- 8. The member of the EnTag team will then discuss the exercise with the author to record impressions of the exercise:
 - Is a tagging interface something they would use when depositing papers?
 - Do they prefer to enter free text tags, or use the controlled tags?
 - Is the controlled vocabulary a reflection of how they would categorise their work?
 - o Is the controlled vocabulary hierarchy intuitive and easy to navigate?
 - Is the user interface an appropriate one for tagging?
 - Are there any improvements they would like to see (e.g. more use of the tag cloud? Keyword suggestions from abstract?)

1.5 Shortcomings of methodology

There are a number of known weaknesses to this approach:

- Small sample size: the number of available authors in the discipline willing to take part in the exercise may be too small to draw worthwhile conclusions
- The ePubs system already had a simple text field where free-text keywords can be entered, and a number of the papers considered in this trial already had

keywords, potentially confusing the data. We left this data in the system as it was found to add another dimension to the data collected.

- Small number of papers tagged: the number papers each authors can tag in the exercise maybe too small to draw worthwhile conclusions.
- Inappropriate controlled vocabulary: the selected controlled vocabulary may not be appropriate for the nature of the papers which the authors are tagging.
- Unrepresentative selection of discipline: the computing and IT specialists may be early adopters of technology and also too close to the subject and too familiar with the concepts and thus unrepresentative of wider academic disciplines.
- The fact that all the use of the tool is done in one sitting, so rather than repeated uses as would happen in real life.

1.6 Session format

Each session followed a format:

- 1) Introduction from a member of the EnTAG team which covered the purpose of the exercise, the anonymity of the participants, the data collected by the system and the role of the team member as an impartial observer.
- 2) The tester then was given a document with instructions and an outline of the system. This informed them how to log into the test system and how to identify their own publications.
- 3) The observer asked the tester to select at least four publications and to use the tool to add subject terms/tags to it.
- 4) For the final paper of the session, the observer would ask the tester to use the key-wording technique that was not their observed preferred method.
- 5) The observer and tester would then have a discussion about the tool, the controlled vocabulary and any improvements that could be made.

2 Data collection

The main method of data collection was logging the steps the participants conducted in the demonstrator. The Tagger tool collected information as follows.

- Tags collected on the paper
- Length of time to tag a paper.
- Proportion of free to controlled tags
- Number of tags selected
- Depth of hierarchy of tags selected
- Tags deleted.

The observers looked for user behaviour, whether the papers already had keywords assigned and general observations.

3 Analysis

We present an analysis of the statistics gathered in the trial. As we have only ten participants, we can identify them individually using letters.

3.1 Number of tags

Over the study, on average 6 tags per item were assigned and 67% of the total number of tags assigned were free text. The figure below shows the number of tags and percentage free text for all our participants. There are no obvious trends.



Analysing this same data using the length of IT experience, shows an interesting outcome where the most and least experienced staff add more free text tags than those in the middle of the range.



3.2 Effect of existing keywords

The ePubs system already provides a simple text field where free-text keywords can be entered, and a number of the papers considered in this trial already had keywords, potentially confusing the data. Any free-text tags previously added to a paper are taken up by the tag tool, and entered as "new tags" for analysis by the tag cloud. We left this data in the system as it was found to add another dimension to the data collected as we could analyse what effect that having entered tags previously had on the performance.



3.3 Choosing a tag

The figure below shows the average time in seconds for choosing tags for a paper for the first four papers. A downward trend can be observed showing that as the tester becomes more comfortable with the tool and the vocabulary, then the length of time taken reduces.



The downward trend is reversed when we add in the final two items where we would have asked the testers to work in a way that was not their observed preferred way.



3.4 Observations

We record some key observations which were gained during the trials.

Preferred Style

It soon became clear that each individual had a clearly preferred style.

9 out of 10 subjects carefully read the instructions before starting.

4 subjects chose to use the controlled vocabulary most of the time, carefully browsing and selecting terms from the thesaurus. The browsing which they undertook is typically quite careful, with much backtracking up and down the hierarchy, and across related terms to find the most accurate terms. These subjects saw adding free-text terms as a last resort when they could not find terms from the controlled terms

1 subject began with free-text entry, but soon switched to systematic searching of the vocabulary. He then found the Thesaurus Search feature and used that for the majority of searches.

1 subject found the "search thesaurus" option early and used this almost completely, trying to search the controlled vocabulary. He would carefully select a keyword to search with, and when this failed to find a desired term, would adjust the search. He would also do some browsing, and some unsuccessful interrogation of the tag cloud,

but only entered free-text terms when prompted. Two other subjects also clearly preferred the use of the thesaurus search option for the majority of their selections.

1 subject entered free-text terms more or less immediately from the beginning, rapidly thinking up and entering terms without trying to look them up from the controlled vocabulary. Another used mainly free-text, and while he considered the tag cloud a good deal, could not see why he would use it.

Use of the tag cloud was limited and was used late in the process in almost all cases (3). Sometimes this was recognised by the subject (3) and sometimes not. Usually, the observers had to point out the tag cloud and propose that they use it to select terms for later runs of the trial. Others found the tag cloud too large and confusing.

Observations on the Thesaurus

There was a strong tendency in almost all subjects to select terms from the bottom of hierarchies.

1 subject entered the same term twice after accessing it from different routes through the vocabulary.

1 subject reported that he felt that he did not understand how the controlled vocabulary organised terms from just observing the top levels.

1 subject entered organisational and project keywords, which are specific to the organisation, and would not be part of a general thesaurus, but could be supplied as a specialist set of terms for the specific organisation.

1 subject deliberately picked singular rather then plural terms and was careful about capitalisation.

3.5 Post-task Questioning

After each task, the participants completed a post-task question and answer session.

General Impressions of the tool

5 of the subjects understood what the tool was intended to achieve, and why it was beneficial to provide such keywords to index their papers.

6 of the subjects found the tool quite straightforward and useful to use. – "perfectly usable" one said.

1 said that the tool needed to be much easier to use than this. He felt that the it "looks like a tool for an information professional", although he could see the tool used, if it had automated features. One subject queried whether there was any benefit to author of adding any subject keywords? He felt that the benefit to the user in retrieval would need to be emphasised to get it to be used.

2 subjects said that they would be prepared to use the tool if the vocabulary was suitable fit to the main focus of their work.

1 subject said that he would be willing to use if we can prove that a searcher would actually use these tags in locating items

Why use of the preferred style

Those that began with a methodical search through the keywords saw that there was an advantage in providing a standard description, and saw free-text tags as being complementary when you cannot find a keyword. 1 subject said that he did not want to put in a free-text tag in case it was in the controlled vocabulary.

1 said that the use of a standard vocabulary "made you think" about the exact subject of the work in hand.

1 said that there was a tendency to "crowbar" the meaning desired into the terms provided by the controlled vocabulary.

1 said that there were limitations of vocabulary search: "navigation through the tree is fraught" while searching locates the right place and then can explore. They have got to be able to find terms in the vocabulary. He would prefer to free text tag if not well covered but controlled vocabulary gives a structure and this helps searching and retrieval.

1 subject said that they wanted to use the advantages of the controlled vocabulary, and found searching it faster than browsing, whilst one other said that he liked the "intellectual challenge of finding things in browse" – rather than using search.

1 subject who used mainly free-text tags said that controlled vocabulary was only useful if you know it – need more explanation of the meaning of the terms

Suggestions for changes and additions

1 said that the full tag cloud was too general and would like to see it made more specific for his purposes.

4 subjects proposed that automatic keyword extraction – from titles, abstracts or full text - would be a useful addition to make the task easier, and keep user work to a minimum. 1 subject said that they would be more likely to use the tool if it was in combination with a automated system as this would save duplicating work.

Another subject said that the would like a keyword "suggester" tool in conjunction with the free-text entry, and another said similarly, that he would like to be able to find matches from the controlled vocabulary from the free-text term added. Another subject suggested that a suggestion tool for the tag cloud might be useful,

1 suggested making the tag cloud alphabetic rather than usage ranking.

1 did not like the phrase "Tag Cloud" – would prefer "popular" or "common tags"

One subject felt that the "show all" in the tag cloud didn't suggest that this would show everyone else's tags. He would be interested in selecting a group of people and seeing their tags rather than everyone's.

Comments on the Thesaurus chosen

3 of the subjects recognised the vocabulary and knew where it came from. Some had used it to classify journal submissions, though only one said he was familiar with it.

5 subjects said they found the thesaurus quite theoretical and abstract, and felt a more practically oriented thesaurus would more accurately reflect their work

1 said that ACM was fine, but it was hard to choose a precise term, and it would be useful to provide more information to use, such as definition. Two others said that definitions of terms would be helpful.

1 said that he felt he needed to understand the ACM scheme in more detail before he could use it effectively.

3 subjects said they would consider that a choice of vocabularies was needed, to cover the computing aspects and the application areas.

1 subject felt that the thesaurus chosen was rather out of date.

Comments on the user interface

2 subjects felt that the presentation of the Tag Cloud was confusing, with a different treatment of free-text and controlled vocabulary search, a non-obvious selection mechanism and no search. There was a feeling that there were too many terms seen at once -1 other subject said that ir was too big to comprehend. Another subject said that they would expect some classification/grouping/hierarchy in the tag cloud. One other subject used the Tag Cloud a good deal, but could not see the value of using other people's terms.

1 subject would like a more visual browsing interface as he found that the searching through the hierarchy awkward and unintuitive. Would like to see a more contextual view of the place in the thesaurus he was searching within. Another subject was similar, wanting to see more than one layer of the hierarchy at once, and a more visual search, if it could be achieved in a non-cluttered manner. Similarly, 1 felt that it needed a better visual way of showing the hierarchy so that one can see the global view whilst navigating a small local view.

4 Conclusions

From these observations, we determined some general conclusions about the use of controlled vocabulary and free-text input for tagging.

- There is a general pervading sentiment amongst the depositors that choosing terms from a controlled vocabulary was a "Good Thing" and in fact better than your own terms. The subjects could overall see the point of the adding terms for information retrieval purposes, and could see the advantages of consistency of retrieval if the terms used are from an authoritative source.
- 2. Most claimed that they would be willing to use a tool similar to the one provided, albeit with some reservations and suggestions on the interface.

- 3. Several subjects pointed out that usability would be greatly enhanced by provided some automatic assistance in suggesting tags, to find suitable tags in the vocabulary or the cloud, from either known information on the paper, or else from free-text input. This would speed up the process and make it more accurate.
- 4. ACM was not seen as a good enough for the purposes of this group. Either the coverage was not seen as adequate, it is seen as theoretical, or is not up to date. However, some recognised that as a controlled vocabulary used by a publisher it had its place.
- 5. The Tag cloud was not a success. Most did not use it, and those that considered it either found it confusing to use or presenting too many options. It is interesting to speculate why this may be. Whilst an experienced group of IT professionals, they also claimed not to be major users of tag in most applications, and perhaps a larger sample could determine whether different groups with different types of experience would use the tag cloud more. However, there were also clear problems with the realisation of the tag cloud concept in this tool, and a revised interface may have more potential to be used more effectively.
- 6. Most people were conscious of consistency and retrieval and used capitalisation and plural/singular in terms consistently. There may be a bias here they were aware that they were being observed. However, this is consistent with the methodical approach that this group took to the tagging task.
- 7. Most people have a strong preference for the way they interact with the system, and how they used the variety of tools on offer, and have a clear preference not to use it in other ways. We could divide our sample into three main groups:
 - a. Free text taggers: enter many free-text terms, and don't care about or use the controlled vocabulary.
 - b. Thesaurus Browsers: Carefully and systematically browse the hierarchy of the controlled vocabulary, and only enter free-text term when the controlled vocabulary did not have a term they were comfortable with.
 - c. Thesaurus Searchers: prefer to interact with the controlled vocabulary via a search tool, then move to browsing and only enter free-text term when the controlled vocabulary did not have a term they were comfortable with.

We would speculate that another category of people would start with the tag cloud and mainly select tags from there. However, this approach was not represented in our group.

We would also make some recommendations about the design of the tool:

- The search should to look at more than one source of information at a time controlled vocabulary and tag cloud. Also a search from free-text input.
- The tag cloud needs some work on it people seemed to suggest that it needed structure (subject/friends/etc) to be of use. People were more interested in their own terms than anyone elses!
- A significant minority wanted a more graphical/visual representation of the controlled vocabulary probably to help them navigate.

- Spelling checker functionality for the free text at input stage?
- Help and definitions of terms should be supplied if possible.
- Automatic assistance in suggesting appropriate terms.

5 Appendices

Appendix 1: The Tagger Tool

The Tagger interface is supplied in conjunction with the ePubs metadata editing tool so that tags can be entered for a specific publication by its authors. The figure below shows a screen shot of a typical tagging screen.



The screen is divided into four main areas.

- 1. At the top-centre, the title and abstract of the publication selected for tagging is displayed.
- 2. At the bottom-centre, a browse interface for the thesaurus is shown. The chosen thesaurus can be changed by choosing from a drop down menu

(only the ACM scheme is available for the trial). This has the following features

- a. The top-level terms are shown initially,
- b. The hierarchy can be expanded by clicking on a term (shows narrower terms and related terms)
- c. The current path to the top of the hierarchy is shown as a "breadcumb" trail along the top of the hierarchy. This can be used to backtrack.
- d. Terms can be selected for adding to the "controlled tags" list by clicking on the "+" symbol to the left of each term.
- e. The "search thesauri" link brings up a window where free-text terms can be entered which allow the thesuarus to be searched.
- 3. To the left a "tag-cloud" is displayed, ranked in order of frequency of use of the tag. These can be selected by either clicking on them (if they are freetext terms) or clicking on the spyglass symbol displated to their left (if the arise from the controlled vocabulary). This will enter them into the "freetext" add term box on the right of the screen, where they can be accepted as a tag for this paper. The tag cloud as a default shows only the terms used by this particular author. By clicking on "show all", the tag cloud of all authors can be displayed.
- 4. To the right, the current selected free-text (above) and controlled vocabulary terms (below) are shown. These can be deselected by clicking on the "-" sign to their left. In the centre of this panel, there is a free-text box, which the user can enter free-text terms and click on the "+" symbol to the right to enter them as tags for this paper. Multiple terms can be entered at once by separating them with commas.

Once a suitable selection of tags has been made using the tool, the user can accept them by clicking on the "Confirm" button at the bottom of the screen.

EnTag Evaluation: Some Notes for Authors

Thank you for taking part in the EnTag evaluation. These notes are to give you some back ground and guidance in the tasks we would like you to undertake.

The EnTag project aims to evaluate the relative merits of *free-text tagging* and *selecting from controlled vocabularies*. We have developed a simple tool which is integrated into a version of the *ePubs* institutional repository for RAL and DL, and we would like to test this interface with people who are regular depositors into ePubs of papers which they have written.

In this test, we would like to ask you to use the tool to select **keywords** or "**tag**" a number of your own papers using this tool. One or more of the EnTag team will be with you during the test – they can help to clarify points, although they should not influence your choices.

Starting

The version of ePubs we are using is found by opening a web browser and accessing:

http://epublicns02/ep/index

this is a development version of ePubs – and it may not have your most recent entries as it is running on an earlier copy of the database.

- Sign in to this version (via the "sign in" button on the right hand side) you will need your FedID.
- List your publications (via the "my epubs" button on the right hand side)
- Choose a likely candidate paper, and select the edit option for it (on the right hand side of the entry). This will bring up the first page to edit the metadata of the paper.

This first page is different to the one you are probably used to. Towards the bottom, it has your current keywords (if any) listed, and a button marked "Tagger".

- Click on the button marked "Tagger".

This will bring up a new window with the tag interface. We can now start tagging your paper.

Tagging a paper

The tagging interface is now displayed.

In the centre, in yellow, is some information about the paper you have selected – for example title and abstract. Surrounding this are panels which allow you to select tags in various ways:

- On the top-right, you can enter tags of your choice via a free text input
- In the centre you can browse and search a pre-loaded **hierarchical controlled vocabulary** (a *"thesaurus"*) in this case we are using the controlled vocabulary of computing terms as defined by the Association of Computing Machinery (ACM).
- To the left you can select terms via a "**tag cloud**" here tags which authors have used are displayed, with popular tags displayed at the top.

You can choose tags using all three methods - the "+" symbol by a term selects a tag. Tags you have selected are displayed on the right – a "– " symbol by a term allows you to remove the term from your selection.

What we would like you to do is use this tool to select tags appropriate to the paper you have selected. The observers can help you to clarify the technical operation of the tool, but will not advise on the choice of term or how you might go about selecting terms.

Spend a few minutes on this – no more than about 5. When you are satisfied with the selection of terms, then select the "CONFIRM" button. Your choice of terms will be recorded in the database – and would be available to the search engine in the development version of ePubs.

The tagger window will close and you should be returned to your list of publications (there is no need to save the edit as the tagger tool does this for you).

We would like you to repeat the exercise on a number of other papers of your choice – we would suggest that we would have time for say 5 or 6 papers over all. We suggest that you chose papers which are different from each other in their content, otherwise the choices of tags would probably be quite similar.

For some of the papers, the observers may propose that you select different routes to choose tags.

If you would like to talk through what you are doing, feel free, but we may record what you say.

After the session

After the session is complete, the observers will ask you a number of questions about what you have done in order to record your impressions of the exercise.

We hope that the whole session will take no more than about 45 minutes.

What we are recording and doing next

During session and during the questions afterwards, the observers will take notes on what you are doing and saying. Also, the system itself will record some information about your actions – terms chosen, order of actions using the various tools, time taken.

We are carrying out these evaluations with a number of people within STFC. We will analyse these results to give an evaluation of the usefulness of the approaches to selecting tags from the various tools, and of the user interface. We will be writing a report of the overall outcome of the evaluation – if you would like to hear the results, we would be happy to let you have them.

All information provided by individuals will of course be kept confidential, and the results will be anonymised in the final report.

We would like to thank you for your time and help on this evaluation, and hope you find it an interesting exercise.

Brian Matthews, Catherine Jones, Bartlomiej Puzon

STFC, September 2008

Appendix 3: Test sheet used by observers

ENTAG TEST SHEET

(draft)

Activites of the project staff, in order:

- 1. Give a brief introduction and background of the project
- 2. Explain possible gains one can have if they take a while do tag their work properly
 - a. the works would be easier to find by the researchers community
 - b. which would make them more widely known
- 3. Explain the meaning of the 'free tag' and 'controlled tag' terms
- 4. Ask to log in to the epubs system
- 5. Ask to select a number (at least 4, up to 7) of works that the subject authored
- 6. Ask to tag the papers, one after another
 - a. Ask to add both controlled and free tags. Do not mention the order.
 - **b.** Do not instruct the subject on how to use the tagger unless asked to do so. Note the user reaction to a new system
 - c. Note the order of tagging (free/controlled) the subject chooses (for each work)
 - d. After the user has tagged three works, impose the order: "free tags before the controlled tags". Change this order with each subsequent work onwards.
- 7. Ask the subject to log out and invite to a short discussion

The discussion (should we record?)

- 1. Ask for the general impressions.
- 2. Ask for the opinion on the idea
- 3. Which kind of tags do the subject prefer?

4. Do they find the dictionary to reflect their work? If not, how would they change it?

- 5. Do they find browsing through the hierarchy intuitive?
- 6. Do they find the enhancements meant to help (tag cloud, search) helpful?
- 7. What to they think of the interface?
- 8. How would they improvr it?
- 9. Would they be willing to tag their works if there were tools provided

Thank the user for the meeting (biscuits?)