Kinds of Tags - Progress Report for the DC-Social Tagging Community

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What
this
presentation
is
about

KoT

What is KoT and how it began

How we did it

The first indications we found and what we are willing to find

How to get involved

How it Began

- Liddy's post on DC-Social Tagging mailing list;
- Preparation of a proposal and posting it to the mailing list;
- Receiving expressions of interest from people from the UK, Spain, France, Belgium, Italy and USA;
- The authors of this presentation are working on it, but newcomers are always welcome.

Conditions / Restrictions

- it is a bottom-up project: it was born inside the community;
- it is completely Internet-based as:
  - it was born in the electronic environment;
  - most of the participants don’t know each other personally: all communication was Internet-based (Google docs was of extreme help) and, *note*, mostly asynchronous;
- there was no financial support and it was all developed based on a common interest of the participants.

The questions

It is focused on the analysis of tags that are in common use in the practice of social tagging, with the aim of discovering **how easily tags can be ‘normalised’ for interoperability** with standard metadata environments such as the DC Metadata Terms.

We are starting to have some **indications** to provide (still foggy) answers to the following questions, for **this particular set of documents**:

- Into which DC elements can tags be **mapped**?
- What is the **relative weight** of each of the DC elements?
- What **other elements** come up from the analysis of the tags?
- Do tags correspond to **atomic values**?

The Process of Data Collection

- Fifty scholarly documents were chosen, with the constraints that:
  - each should exist both in Connotea and Del.icio.us; and
  - each should be noted by at least five users.
- A corpus of information including user information, tags used, temporal and incidental metadata was gathered for each document by an automated process;
- This was then stored as a set of spreadsheets containing both local and global views.

The Data Set

- 4964 different tags corresponding to 50 resources (documents): repetitions were removed;
- no normalisation of tags was done at this stage;
- all work was performed at the global view: easier to work with;

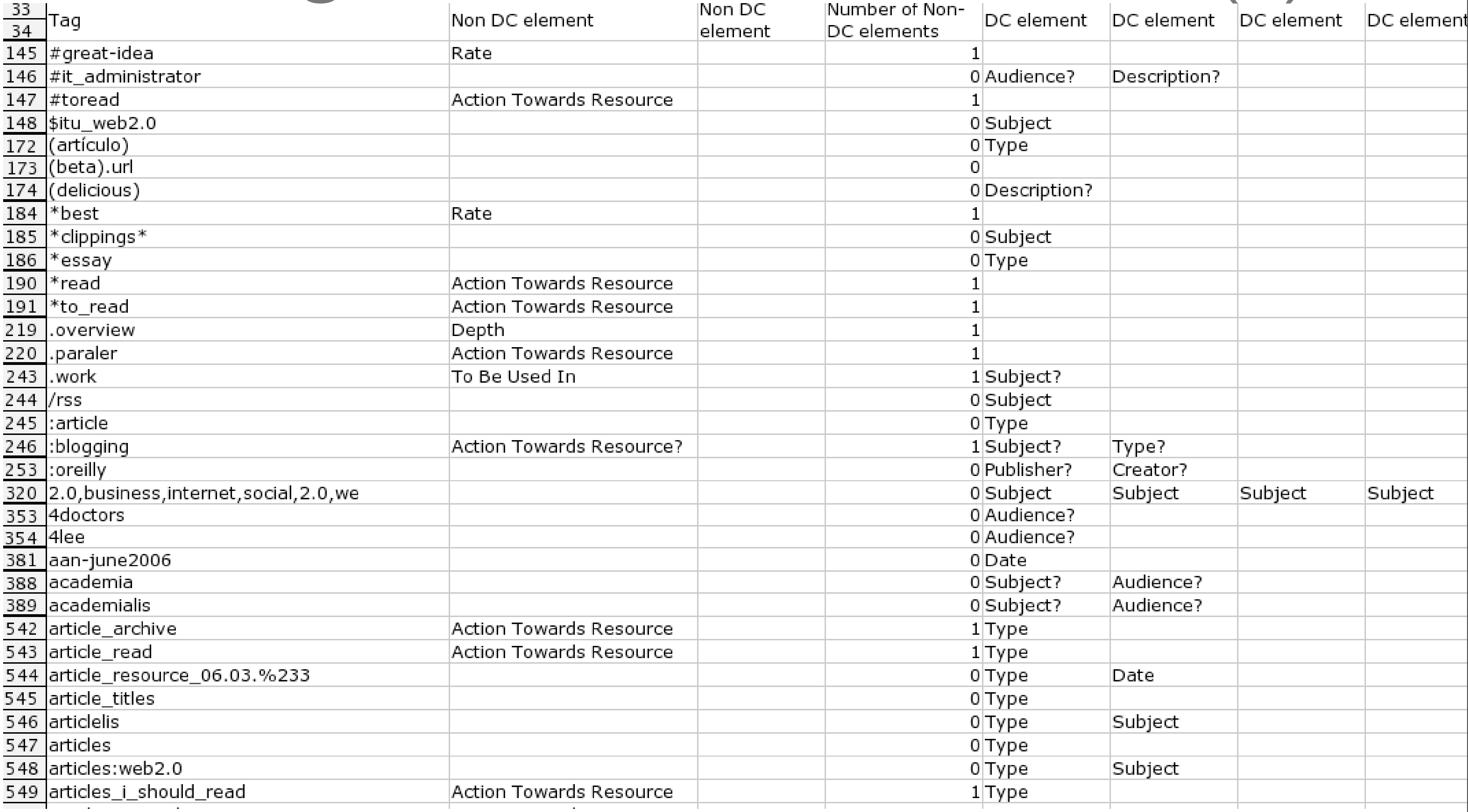
Assignation of DC elements

- Each of the 4964 tags in the main dataset was analyzed in order to manually assign one or more DC elements;
- In certain cases in which it was not possible to assign a DC element and where a pattern was found, other elements were assigned;
- Thus, four new elements have been "added" (indications to the question: What other elements come up from the analysis of the tags?):
  - "Action Towards Resource" (e.g., to read, to print...),
  - "To Be Used In" (e.g. work, class),
  - "Rate" (e.g., very good, great idea) and
  - "Depth" (e.g. overview).

Assignation of DC elements (2)

- Multiple alternative elements were assigned in the event where:
    - meaning could not be completely inferred (additional contextual information would help in some cases);
    - tags had more than one value (e.g., dlib-sb-tools - elements: publisher and subject).
- When there were enough doubts a question mark (?) was placed after the element (e.g., subject?)

Assignation of DC elements (3)



33 34	Tag	Non DC element	Non DC element	Number of Non-DC elements	DC element	DC element	DC element	DC element
145	#great-idea	Rate		1				
146	#it_administrator			0	Audience?	Description?		
147	#toread	Action Towards Resource		1				
148	$itu_web2.0			0	Subject			
172	(artículo)			0	Type			
173	(beta).url			0				
174	(delicious)			0	Description?			
184	*best	Rate		1				
185	*clippings*			0	Subject			
186	*essay			0	Type			
190	*read	Action Towards Resource		1				
191	*to_read	Action Towards Resource		1				
219	.overview	Depth		1				
220	.paraler	Action Towards Resource		1				
243	.work	To Be Used In		1	Subject?			
244	/rss			0	Subject			
245	:article			0	Type			
246	:blogging	Action Towards Resource?		1	Subject?	Type?		
253	:oreilly			0	Publisher?	Creator?		
320	2.0,business,internet,social,2.0,we			0	Subject	Subject	Subject	Subject
353	4doctors			0	Audience?			
354	4lee			0	Audience?			
381	aan-june2006			0	Date			
388	academia			0	Subject?	Audience?		
389	academialis			0	Subject?	Audience?		
542	article_archive	Action Towards Resource		1	Type			
543	article_read	Action Towards Resource		1	Type			
544	article_resource_06.03.%233			0	Type	Date		
545	article_titles			0	Type			
546	articlelis			0	Type	Subject		
547	articles			0	Type			
548	articles:web2.0			0	Type	Subject		
549	articles_i_should_read	Action Towards Resource		1	Type			

Some Indications (Work in Progress)

- Users apply tags not only to describe the resource, but also to describe their relationship with the resource (e.g. to read, to print,...)
- Do tags correspond to atomic values? Many of the tags have more than one value, which potentially results in more than one metadata element assigned.
- Into which DC elements can tags be mapped? 14 out of the 16 DC elements, including Audience, have been allocated.

Some Indications (Work in Progress) (2)

- What is the relative weight of each of the DC elements?
  - It was possible to allocate metadata elements to 3406 out of the total number of 4964 tags (meaning was inferred somehow);
  - 3111 out of these 3406 were assigned with one or more DC elements - (no contextual information).
  - The Subject element was the most commonly assigned (2328), and was applied to under 50% of the total number of tags.

Conclusions

- A revision of all assigned elements was made; however, normalised markup of such a large corpus is an enormous task.

- The indications we show here are not preliminary findings. This work is in an initial phase. Further work (that may invalidate these indications partially or totally) has to be done, preferably by the whole community.

- Assigning metadata elements to tags is a difficult task even for a human - Contextual information may ease it, but we still don't know at what extent (because we didn't do it).

Questions for the Future

- Current question: how easily can tags be 'normalised' for interoperability with standard metadata environments such as the DC Metadata Terms?
- Future:
    - Should we have a more structured interface for motivated users to tag? Would that be used? Would that be useful?
    - Will we be able to infer meaning from tags? To what extent? Is it really neded?

How to Get Involved

- Emma Tonkin is leading new developments;
- Contact Emma (e.tonkin@ukoln.ac.uk) or any of the authors;
- Share your ideas and say how you are willing to help.

Thanks!!!

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