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Tags (metadata)

WHAT ARE TAGS AND METADATA, AND WHY DOES IT MATTER?

My exam paper will explore the notion of tags and the act of tagging in the field of metadata. Metadata is "data about data" or information about data. And tags are a form of metadata that was first popularized with the emergence of Web 2.0. Tags are an important feature that makes browsing and searching easier by creating keywords or terms and assign them to a piece of information or object. This has the effect of classifying, categorizing and organizing content and information which can be a plausible in many fields. Tagging systems are mainly composed of three components (Smith, 2008):

- The users of the system (or "taggers") who create tags. The goal for the taggers are often to share a resource or to put a label on it to make it easier to retrieve later.
- The tags themselves that are generally keywords or terms that describe the resource. Some tags can be more descriptive and some more semantic.
- The resources that are being tagged. A resource can be almost anything – a photo, a book, a video, a date etc.

The use of the word "tag" in software dates back to the late 1970s and early 1980s. In this period the Unix text editor Emacs offered a software program called "Tags" that could automatically build a table of cross-references. Emacs could use the "tags table" to jump between function calls and the functions' definitions. In this case the use of the word "tag" in software only refers to a word index and not metadata tags. Later, the online databases and early websites used keyword tags as a way for publishers to help users find content. In the beginning of the World Wide Web, the tags were used by web designers to tell web search engines what the web page was about, but these tags were only visible in the source code and not modifiable by users.

In 2003, the social bookmarking website "Delicious" provided a way for its users to add "tags" to their bookmarks in order for the users to find them later. Not many years later, the photo sharing website Flickr provided its users to add their own text tags to their pictures which constructed a flexible and easy network of metadata that made the pictures highly searchable. The influence of Delicious and the success of Flickr have helped popularizing the concept, and now tagging is implemented in many other social software websites like YouTube, Twitter, Tumblr and many more.

But the act of tagging is actually something we've done long before the existence of computers. Just look at how books in libraries are sorted and organized by their author name, genre or language.

Another example of analogous tags could be museum object tagging in form of labels describing the exhibition's name, origin, data and so on. In fact, tagging is a feature that roots deep in our human nature. Tagging is method very similar to how the human brain works – a method of networked associations. We all have the ability to recognize, separate and categorize objects or other people. Our minds are a huge self-organizing database system. We put people in different boxes labeled "family", "friends", "colleagues", and sometimes more specific boxes maybe associated with a memory or more detailed relation like "the guy who borrowed my car once", or "my boyfriend's uncle". When tagging, we put labels onto different items, so we can later use single terms or combinations of terms to search for these items. And by doing this we can organize information in several different ways and in several different places at once.

Even in the field of biology we can see a similarity to metadata by looking at information biology that focuses on how DNA strings are information containers. These strings contain "data" about our body which translates into proteins and cells in order to become our physical body. In other words, the foundation of life is of the same idea as metadata. This kind of similarity between humans and software is something we can see in almost every piece of technology. We can always find ways to relate our human attributes to the programs and machines we build.

But this means that our human flaws are often displayed in the technologies we make. Humans are lazy, self-ignorant, dishonest and stupid. We don't always follow instructions; sometimes we can't spell and punctuate properly; we lie to each other; and we often aren't the best judges of our own information (Doctorow, 2001). These facts rise suspicion of metadata's efficiency and questions whether tagging will work as a way of organizing the whole Web. To answer these questions the paper will dig deeper into how tagging works.

Tagging systems are usually divided into two kinds: Taxonomy and folksonomy. Taxonomy is a hierarchical tagging system where tags are created by authorized group specified by the owner of the content. Folksonomy is a more social tagging system where users apply public tags to online items. In some cases, the folksonomy practice is called collaborative tagging, social indexing or social tagging. As the emergence of Web 2.0 and its idea of social networking there has been an increasement in the folksonomy practice of tagging. In the field of computer science and social science there has been debates about whether the efficiency of organizing information is higher in formalized classification(taxonomy) or in distributed collaborative tagging systems(folksonomy). As mentioned earlier our human flaws are greatly influencing the quality of tags and many will thus

argument that taxonomies are the best way to prevent semantic noise, "information overload" or spamming. There are concerns about the instability of not having a coherent categorization scheme in collaborative tagging since the users does not share the same centralized controlled vocabulary (Halpin, Robu, & Shepherd, 2007). But by looking deeper into the research areas of folksonomy some will argue that the distribution of tags stabilizes over time. The evidences for this comes from qualitative observations formalized by quantitative statistics of websites with social tagging systems. And besides this there are numerous advantages in letting the users of web communities create tags of their own and thereby creating an "ecosystem" for information sorting. My paper will examine the two types of tagging systems by looking at the problems at hand and reflect on different argument that are posed.

By looking at the trending of folksonomies my paper will reflect upon how experts are being substituted by normal everyday users in a historical perspective. The paper will then discuss how the modern world is slowly changing from being run largely by institutions to collaborations (Shirky, 2005) – in which social tagging systems are a perfect example of this – and reflect upon what consequence there might be of this tendency.

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