What are tags and how are they used?

A tag in this context is a description attached to something.

E.g. html has meta tags.

```html
<head>
  <title>Not a Meta Tag, but required anyway</title>
  <meta name="description" content="Awesome Description Here">
  <meta http-equiv="content-type" content="text/html; charset=UTF-8">
</head>
```
Usage

- Commonly used
- User contributed
  - not only submitted by the publisher
  - open to abuse
- Faster results than when using search engines
- Tags may point to information that automated indexing does not
Examples of systems using tags

- Twitter
  - #hashtag

- del.icio.us
  - bookmarking
  - user, tag, url

- Flickr
  - tags describing a submitted image
  - topic, time etc.

- last.fm
  - genre typically
Problems and challenges

- **Finding the right tag**
  - Ambiguousness
    - “Apple” – Fruit or company?
  - Inflections
    - Singular and plural
      - “Mouse, mice”
  - Combining phrases
    - “Website development” -> “Webdev”
  - Spamming
    - Excessive number of tags or unrelated tags
      - YouTube
Problems and challenges

- **Ranking tags**
  - Not all tags are created equal
  - Ranking out the unnecessary ones
- **Who tags?**
  - User, community, experts...
- **Categorizing tags**
  - The manual labour of categorizing tags to their respective groups
  - What category does the tag fit in?
Solutions

- Users can add their own tags (Twitter #)
- Defining tag types to their own categories.
- Categories ranking depends on the platform for example in Flickr location is one of the most important categories.
- Tag mapping that creates a “map” that user can navigate
- Using Cohen’s algorithm to find the most fitting tags
Cohen’s kappa algorithm

- Algorithm measures inter-rater agreement for items (tags-categories)

- Using the Cohen’s kappa algorithm to calculate the k-value for the tags

- With the k-value user can define is which category tags fall into
Next week: discussing drawbacks