Understanding microblogging hashtags for learning enhancement

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Summary

The use of hashtags in Twitter messages is growing among the educational community for various reasons. Exploring and understanding how hashtags can facilitate learning and self-learning organization is the main aim of this paper. Several online available tools for hashtags management are examined and their recognition and utilization can assist knowledge gathering and learning network constructing.

Keywords: microblogging hashtag, learning, social network, hashtag management tools.

Introduction

Microblogging platforms provide interactive channels for information broadcasting and sharing in private or professional aspect in less than 200 characters. Their potential for learning occurring in collaborative atmosphere, forming groups and communities of interests are seen by researchers and educators (Grosseck and Holotescu, 2008; Borau, Ullrich, Feng and Shen, 2009; Gómez-Sanz, Fuentes-Fernández, Cosío and Mestras, 2010). One of the most exploited microblogging tool is Twitter which emerged in July 2006 with its first prototype and after eight months already had about 94000 users (Snider, 2007). Many users from over the world exchange tons of messages and there is still no mechanism for conversations grouping. Seeing this Twitter «bottleneck», Chris Messina proposed inclusion of hashtags in text messages on August of 2007. He is inspiriting from IRC channels and Jaiku microblog. The first name of hashtag is called «channel tag» and it is used as metadata about a tweet and not of its content. Shortly after that hashtags are also utilized for tracking of terms and topics, facilitating users to find and organize valuable tweets. Hashtags are considered as «folksonomic» because they give ad hoc organization with no rigid structure or approval system (Gannes, 2010).

Like Chris Messina, Stowe Boyd[1] has proposed several protocols (conventions) to give understanding to the real-time data stream. Other services that allow users to exchange hashtags and thereby to discover new followers based on location, privacy radius and hashtags are developed too.

Several definitions are formed to clear the hashtag meaning. According to Wikipedia:

«[...] hashtags are words or phrases prefixed with a hash symbol (#), with multiple words concatenated, then a person can search for given term and this tagged word will appear in the search engine results. These hashtags also show up in a number of trending topics websites, including Twitter's own front page».

WhatIs.com encyclopedia defines «a hashtag as a tag used to categorize posts on Twitter (tweets) according to topics. Hashtags allow people who follow that topic to find your tweet and perhaps follow you as well».

About.com talks about «hashtags as a way of tracking topics on Twitter. By using hashtags, you can help people who are looking for more information on your subject find your tweets».

Hashtags become a powerful technology for tracking in real time conversations and events. For example hashtag #PLENK2010 demonstrates the social engagement and involvement in the online course related to Personal Learning Environments and Knowledge Networks (PLENK) started by Dave Cormier, George Siemens, Stephen Downes and Rita Kop. The analysis shows that over 100 tweets per day are identified with this hashtag, allowing users to share ideas and resources, to comment, ask or announce the course. There is no statistics how many users interested in the topic of PLENK are passively observers and trackers of the hashtag #PLENK2010.

In this paper the possibilities of hashtags use for learning involvement in formal or informal ways are explored and suggestions for learning improvement are done. Several online available tools for hashtags management are examined with aim to facilitate knowledge gathering and learning network constructing.

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[1] http://www.microsyntax.org

Potential for learning occurring utilizing hashtags

Twitter hashtags have certainly become a new method for knowledge/resources sharing, finding and exchanging a wealth of information whether based on topic, event or centered around a person, for tracking subject or discussion, for resource organization, for social community forming, for learning on the fly. Starting from an idea for conversation grouping, hashtags are converted in a tool for rich learning experience gaining. Several benefits of hashtags in context of learning enhancement are explored and discussed below based on literature overview and on author's experimentation.

Sharing knowledge/resources

The social reward of being of impact for peers who read content described with hashtags, takes learners to contribute creating new content and it is a cause for easy start posting. Giving freedom of learners to contribute to course structure or to extend the planed content, sharing found relevant web page, blog post or tutorial is a motivating factor for their active participation. The process of sharing is related to knowledge for information filtering and for critical analysis of this information. It improves learners' productivity and learning at preparing microblog posts.

Hashtags have been used for information and knowledge sharing before, during and after events and conferences. Also, the hashtags facilitate the creation of backchannels for attending and distance participants in different events and conferences, giving them possibilities to follow the conversation thread and participate.

Monitor and tracking topics

Hashtags are useful for monitoring and tracking Twitter discussion channels on a wide range of topics. For this purpose special tools (Tweetchat, Tweetgrid, Monitter, etc.) are developed to fine-tune the right topics and to remove all Twitter noise. These tools help learners follow the conversation without being flooded by other unrelated tweets. Following a conversation with Twitter's main web page is difficult and by the time the page has to be refreshed and after this tweets with the hashtags related to interested topics have to be found. Some of the hashtag channels are ongoing and unstructured, and others are more formal, structured conversations that happen weekly at a particular time.

One example for structured conversation among many started chat channels is for anyone interested in formal and informal learning, new approaches to workplace learning through social media, virtual worlds, and games, design, instructional design, metalearning, cognitive psych, and creating a healthy learning environment. Among participants are corporate educators, homeschooling parents, university professors, K-12 educators. The channel is identified with the hashtag #lrnchat[2].

Resource organization

Hashtags could be used for identification of key topics in a course and for its organization. They are basic point for specifying of search query related to given topic. Hashtag utilization proposes an interactive way for course content building, allowing

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[2] http://lrnchat.wordpress.com, http://wthashtag.com/lrnchat

educators to create different content structures and learners to extend existing or to add new ones (if course administrator allow such activities). Learning in more structured content is always advantage rather that tumbles in the dark, looking for useful resource, comment or advice.

Hashtags could be used for analysis and statistics giving information about preferred topics, number of students interested in these topics and also about the relations among topics.

Social community forming based on learner profile

Every learner has favorite topics and set of hashtags that form his/her profile. These hashtags are the bond among learners/educators with similar interests. They contribute for creating of learning network or groups with similar interests, allowing opportunity to follow peers and experts twitting messages with relevant hashtags.

Ad hoc communities of practice or a channel for learners in a field to informally share resources or conversation are formed based on the Hashtags usage.

Learner Self-organization

Hashtag usage could be a way for learners that use Twitter to organize themselves: learner can categorize his/her own tweets through hashtags tweeting about a topic, event or resource (or retweeting peers messages with relevant hashtags or just add suitable hashtags to the message) and after this when he/she need the tweeted information it becomes easier to find that topic in search, and more likely the topic will appear in Twitter's trending topics.

Tools related to Hashtag usage

Third party Twitter online available and desktop applications are created to facilitate learners easy to identify the meaning of hashtags, to search, monitor, track and participate in Twitter conversations and discussion. Several online based applications are described below to direct learners in their hashtags utilization.

Identification of hashtags meaning

WhatTheHashtag[3] is a web-based user-editable encyclopedia for hashtags. It contains information about specific Twitter conversations including a description, schedule and moderator, planned topic queue, statistics and top contributors, the ability to view and save a transcript of tweets within a certain date and view the Twitter chat via Monitter.

For understanding the meaning of given hashtag can be used Hashtags.org[4] application, showing hashtag use over time and recent tweets, that outline and figure the meaning behind the hashtag.

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[3] http://wthashtag.com/Main_Page

[4] http://hashtags.org

Hashtag definition can be found on Tagalus[5] that is constructed as a simple dictionary for hashtags. It proposes very easy information finding among thousands of hashtags as defined by other users.

Hashtags searching

Twitter posses a search engine[6] of hashtags, that shows a result in form of list with tweets containing a given hashtag. This list can be tweet and also a learner can subscribe to RSS feed of this query.

Another useful application for discovering new hashtags and tracking interesting hashtags is

Twemes[7]. It has a hashtag cloud and also offers RSS subscription to any hashtag stream.

Hashtags tracking and monitoring

Conversation following and tracking is possible with Tweetchat[8]. Tweetchatuses login data of Twitter account. Participation in tweetchat room becomes after entering a given hashtag. Tweetchat settings allow the chat to be paused, set the refresh rate, and feature or block specific users. Each entered tweet into the box will automatically be tagged with this hashtag.

Monitter[9] allows following up to three hashtags at once, and Tweetgrid[10] is created such as a web-based dashboard with search functionality and presentation of up to nine different hashtags at once.

An application that monitor hashtags is TweeTree[11]. TweeTree adds some additional content like photos, videos, blog posts and the link's content in the stream can be seen without clicking on it.

Publishing a tracked conversation on a web page is possible via a tracker tool that can be built utilizing applications like Widgetbox or Tweetgrid.

Sharing and discovering

Hungry Garden[12] is a virtual place to discover and share local information that is relevant to learner' interest and peers that live in or near a formed community. Hungry Garden creates a virtual address on Google Maps that allows sharing learners' location and discovering friends and neighbors.

Organizing hashtags

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[5] http://tagal.us

[6] http://search.twitter.com

[7] http://twemes.com

[8] http://tweetchat.com

[9] http://monitter.com

[10] http://tweetgrid.com

[11] http://tweetree.com

[12] http://hungrygarden.com

A useful tool for posts grouping related to live events (meetings, conferences, games), services (traffic, weather, emergency), memes, and so on is Twitag[13]. Hashtags can be seen, grouped, followed and shared.

There are several add ons for Internet browsers such as Yoono[14] that deliver and organize real time social stream according to queried hashtags. Learner has a possibility to search and track so many hashtags as he/she wishes.

Conclusion

With the recent popularity of the Twitter microblogging application, a huge amount of frequently self-standing tweets became available for the educational community. Many of these tweets contain a wide variety of user-defined hashtags, allowing educators and learners to spread information locally or globally, to exchange experience and knowledge, to form learning networks. The potential of hashtags could be used to optimize and improve of links between educators and learners in formal and informal way; to support the processes of explicit knowledge converting to public available shared knowledge and its dissemination; to emphase on learning from the technological and creative point of view, giving the possibility for understanding the place of tools utilization. This study could facilitate educators with directions for hashtags usage during lectures or seminars and learners with suggestions how to form and extend their learning network, how to self-organize and how to become active participants in a learning process.

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[13] http://twitag.com

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