How People are using Twitter during Conferences

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Abstract: The popularity of microblogging, with special emphasis on twitter, the most famous application of the kind, is growing rapidly. This kind of tools for micro-exchange of information and communication is changing the daily life of knowledgeable worker as well as Internet savvy people. From this perspective this paper aims to show how Twitter can be used during conferences, and furthermore how different people are using it. With the help of a survey and analysis of the collected data, benefits regarding the use of a microblogging tool such as Twitter can be presented. The publication shows evidence on how Twitter can enhance the knowledge of a given group or community by micro-connecting a diverse online audience. Statistical data was also used to support this research.

1   Introduction

In the last few years, enormous changes concerning the use of the Web have occurred. Tim O'Reilly (O'Reilly, 2005) postulated in 2004 for the first time the term Web 2.0 and described not a new technology, but users' new attitude. Nowadays anybody can participate on the WorldWideWeb by using wikis, weblogs or podcasts. Without any knowledge of HTML or Web programming any text or media file can be published to a wider audience. Hence, communication and collaboration becomes easier as proven by Wikipedia, for example.

By taking a closer look at weblogs it must be acknowledged that this way of publishing has become a mainstream within a very short time frame. Following the definition of Schmidt (Schmidt et al, 2005) and Walker (Walker, 2003) a weblog is a frequently updated website consisting of data entries arranged in reverse chronological order. But "why is every 30 seconds a new weblog born" as stated by the biggest weblog search engine Technorati[1]? As shown in different research publications, accessibility and availability to the Internet and to different devices have changed dramatically as well as the usability of web applications (Ebner et al, 2009). The most interesting point about the use of weblogs however is probably related with the fact that these applications are offering the possibility for communication with a huge amount of people. The user-centered, decentralized concept (Kolbitsch, 2007), the per-user publication form (Karger, 2005) allows anyone to become an active participant on the Internet (Farmer & Bartlett-Bragg, 2005). These are some of the many examples which show the power of weblogs with impressive research results. In recent years a new form of blogging designated microblogging has become increasingly popular. In this paper we describe the term microblog and related practice, and attempt to discuss how microblogging can be used in conferences. A survey has been developed to identify relevant key factors related with the microblogging activity in face to face conferences.

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[1] http://technorati.com (last visited March 2009)

2   What is microblogging?

Microblogging is the latest variant of blogging where messages are posted instantly, and are usually no longer than 140 characters. Templeton (2008) defines microblogging as "a small-scale form of blogging, generally made up of short, succinct messages, used by both consumers and businesses to share news, post status updates and carry on conversations". These micro-messages can be restricted to a certain number of individuals, sent exclusively to a specific contact, or made available to the WorldWideWeb. Microblogging has impressively become more and more popular in the last two years, and Twitter is probably the most well-known microblogging platform currently available on the web, when compared with other microblogging tools, such as Plurk[2], and Jaiku[3] or the Open Source Tool Identica[4] (Java et al., 2007).

While regular weblogs are mainly used for writing short essays, knowledge saving and discourse, microblogging is proving extremely useful for the fast exchanges of thoughts, ideas and information sharing (Ebner & Schiefner, 2008). Thus, when compared with weblogs, microblogs provide a much more flexible platform for communication. Furthermore, it must be seen as a new form of communication, where ideas, simple notifications, hyperlinks are shared just in time (McFedries, 2007). Java (Java et al., 2007) stated that the main user-intentions for using microblogs can be categorized by following the types:

- Daily Chatter - using microblogging to answer its original question and purpose: "what are you doing?" The answer generates reports regarding routines and other episodes of daily life.
- Conversations - threading conversations between fellow microbloggers, allowed by the addition of @ to one's micropost
- Sharing information - Sharing URLs to relevant resources enhanced by short comments. It can be seen as a user-driven or user-rated exchange of Hyperlinks.
- Reporting News – providing information on recent events.

Java also reported that most of the users can be characterized as "friends". This means they are using microblogging platforms as social network sites for networking and creating learning relationships as well as discussing with friends and followers. The minority of participants can be distinguished between information seeker (only reading and lurking, without accounts of any active participation) and information source (only bringing information in, without reading). McFedries (McFedries, 2007) described the goal of microblogging as a tool and an approach that means "to enhance one's cyberspace presence". This points out to important aspects, especially in respect to Twitter, regarding:

- Mobility
- Third party applications

The "enhancement of our cyberspace" is a main key feature in microblogging, especially when considering the growing importance of mobility and mobile

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[2] http://plurk.com
[3] http://www.jaiku.com/
[4] http://identi.ca/

applications. Grisworld (Grisworld, 2007) coined Twitter as today's prime example of Mobile 2.0 and expressed the importance of microblogging as well as any other communication platforms to be accessible anywhere and anytime through mobile devices. Furthermore, the exchange of information should also be made available by different types of media (for example, pictures, audio, etc). This is, in fact, now possible through the use of third-party applications such as twitpic[5].

Another interesting aspect of microblogging is the possibility of hashtagging one's micro-posts, or tweets, as these are called by Twitter users. The use of hashtags is extremely useful when sharing and contributing to a specific topic or event. Hashtags are a simple way of grouping messages with a "#" sign followed by a name or a special code which will form a unique tag for a specific purpose. Such hashtags are especially meaningful when used during a particular period of time, as it not only allows individuals to generate a resource based on that specific thematic, while using the hashtag, but also bridge knowledge, and knowing, across networks of interest.

3   Motivation

In the last year we have witnessed the use of such approaches as a powerful component of one's networking activity, and more importantly, it seems to have become a relevant part of one's informal learning. People in diverse areas such as Careers services, Librarians, Computer Sciences, students, educators and researchers, in general, are starting to use the microblogging approach to enrich their knowledge and simultaneously widen the scope of their personal networks. As Stevens et al. (Stevens et al., 2007) state, "the value of Twitter is the network" and, consequently, in the learning and connections one can make while contributing to a spontaneous pool of ideas, pointing to numerous links and resources.

Nowadays, most formal presentations as well as lectures still occur in a traditional setting. The presenter or lecturer talks at an auditorium, which is supposed to be listening to. Especially in large rooms interaction during these face-to-face teaching sessions rarely happen due to the impersonal and massive environment. There are numerous publications, which address these mass-education aspects, and a long tradition of learner-lecturer interaction in huge classes (Bligh, 1971) (Gleason, 1986). Anderson (Anderson et al., 2003) addressed three crucial factors concerning teaching and lecturing in big lecture rooms:

- Feedback Lag: There is lack of peer feedback in and by the audience
- Student Apprehension: This factor stresses the fear of individuals in asking questions
- Single Speaker Paradigm: Only-one-speaker syndrome leads to participation decrease

Bearing in mind these factors, our research also deals with the question: Can Twitter (or any other microblogging tool) help to improve interactions among learners, and enhance their learning experiences? Ebner (Ebner, 2009) shows how microblogging can be used during a presentation to improve the situation through instant discussions by the individuals in a class auditorium.

This article is a follow up of previous research in this field. In our first work we described how Twitter became the main information backchannel at PPE Summer

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[5] http://twitpic.com

School 2008 rather accidentally (Costa et al., 2008). Tweeting while using a hashtag to specify the kind of event we were tweeting for and about commenced in a rather viral way, as opposite to any suggestion made by the organization team. After this first experience of large-scale use of microblogging in a conference-like community event many questions have arisen. Hence, we took the decision to deepen our research in this domain. It was our purpose to analyze and understand the motives as well as the added value of tweeting in conferences in different contexts, and also by different people. It is our purpose to explore the contents of what is tweeted during such events, as also see how one's networks develop from this personal way of communicating and sharing in a networked environment. Twitter can be used at different stages of a conference (cf. (Balcom Group, 2007)). There are significantly differences in how attendees and organizers can use the tool:

Before a conference: Before a conference Twitter is most often used to announce events, workshops and keynote presentations, or to remind attendees to register or to bring specific items. Attendees of a conference use Twitter to organize their trips and share information about accommodations. For the organizers the main goal is to build excitement for the conference and to set up a community of early adopters.

During a conference: Organizers of conferences use Twitter in this stage to keep the attendees updated of last minute changes, organizational hints and to engage attendees to upload pictures, links to related blog entries and so on. The way attendees use Twitter during a conference depends on their personal preferences and styles. Some attendees use Twitter to jot down personal notes, some to ask questions about a presentation and other to discuss specific topics with other attendees (Ebner, 2009). Mitchell (Mitchell, 2009) proposes to design own presentations for Twitter by setting up a specific hashtag for the presentation and to make Twitter breaks to respond to questions from the backchannel. She reasons to prepare own questions to send to the Twitter backchannel in order to increase discussion and information exchange concerning the presentation.

After a conference: The organizers of a conference most often use Twitter after the conference to thank attendees for their presence, post reflections and interesting statistics. They gather feedback and ideas for the next conference and spread the word about upcoming dates. Attendees of the conference use Twitter to post links to their blogs, where they published longer and deeper reflections about the conference. The community of interest shares links to other interesting meetings and conferences and often stays in touch using the hashtags from the conference.

4   Study

The following chapter introduces the purpose and design of our study and presents the main results of the survey.

4.1   Purpose of the study

Twitter is the most used microblogging platform among individuals interested in the area of Learning Technologies; a fact that contributed to determine which tool we would be observing as part of our study. After observing the reality described in Costa et al. (2008), as both delegates of similar events and active Twitterers, the researchers

have decided to extend their survey to other audiences and contexts within the area of conferences. By making the survey available to various international mid- and large-scale conferences we tried to get a deeper insight on how Twitter is used during conferences. The individual motivation of the delegates, organizer or speakers varies very strongly. With our study we tried to understand the motivational aspects of the use of Twitter during conferences.

4.2   Design of the study

A generic online survey was, not focusing on the peculiarities of a specific conference, was designed so it could be re-used in several different conferences, workshops and meetings. For each conference the researchers attended themselves or were interested in, a new survey was created and its URL shared via Twitter, using the hashtag of the conference. The surveys were developed to be answered anonymously, being its main purpose to record the individual's own perspectives and feelings about the use of Twitter in a conference context. All attendees of the respective conference took part in the survey as volunteers. The survey was divided into three different sections and comprised multiple choice, matrix, lickert scale and open-ended questions, which enabled the researchers to survey about respondents' gender and age, their use of Twitter before, during and after the conference, and also about what they liked and disliked microblogging. It was also asked why they used Twitter and what were, in their opinion and experience, the advantages and disadvantages of using Twitter in conferences. In Total, the survey consisted of 34 questions.

4.3   Results

The results are based on data incorporated from five different conferences with 41 responses. 28 (68.3%) of the respondents were male and 13 (31.7%) were female. Comparisons of survey results with respect to gender have been omitted as no significant differences have been found. We also do not compare results from different conferences because the number of responses varied too much.
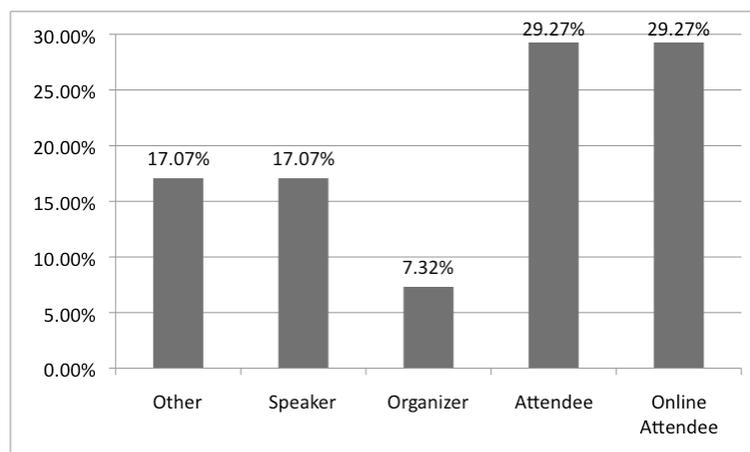

Figure 1: Different roles of respondents at conferences.

To learn about the respondent's role at the conferences the survey asked for clear information about their participation in the event. Figure 1 shows the different

existing roles of the respondents at the conferences and gives a visual representation of the results of the introductory section of the survey.

The second, and main, section of the survey started by asking if respondents already had a Twitter account. 39 (95.1%) stated to have been registered to Twitter prior to the conference, whereas 2 (4.9%) had no account before the event. The respondents who were Twitter users also mentioned that they use their account for personal and professional use. Figure 2 represents the results regarding the use of Twitter for personal and professional use. Some respondents stated that they utilized a single Twitter account for personal and professional activities. However, 51.2% of them reported to apply this "one account for all" policy to other communication tools as well.
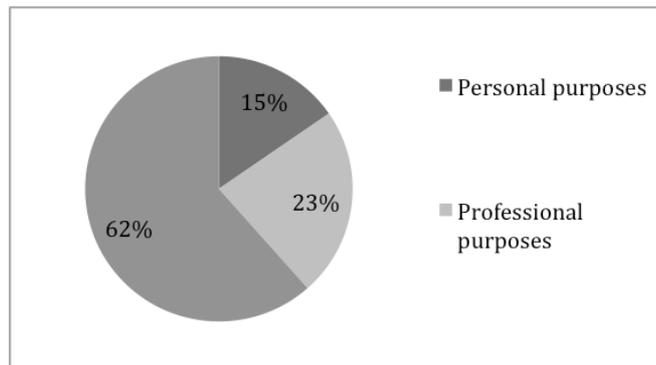

Figure 2: Twitter is employed for personal and professional use.

When asked if respondents were using Twitter to actively communicate during conferences, 27 (67.5%) of them reported to have tweeted during the conference. In Figure 3 nearly all of the face-to-face attendees and half of the online attendees actively used Twitter. 74.1% of theses active Twitter users reportedly sent between 11-20 messages per day throughout the conference. Another 51.2% discussed topics with other Twitterers by sending direct messages or replying to tweets.
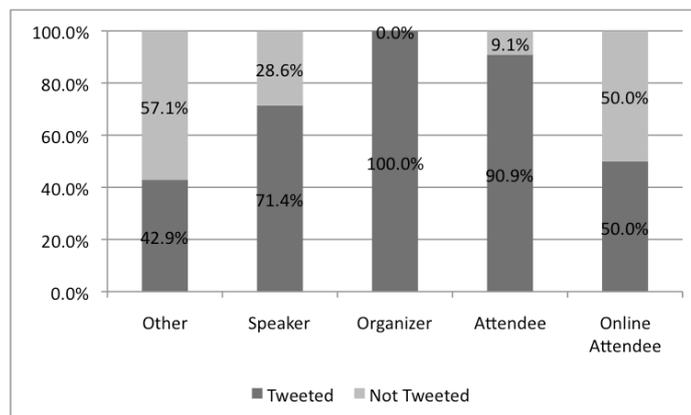

Figure 3: Respondents actively tweeted during conferences.

The responses about the purpose of tweeting showed that Twitter is used in several ways. Besides communicating with others, resources are shared through tweets,

parallel discussions/events are followed, notes are jotted down, the online presence is established and enhanced, and organisational questions are raised. Figure 4 represents the main reasons why the surveyed conference delegates used Twitter while attending the learning event. .

When looking at the types of content sent through twitter, most tweets contained simple plain text (median: 50%). In the messages collected, links to video resources and images were not sent at all, whereas some tweets with links to web sites (median: 10%) were sent by the conference delegates.

We asked the participants of the survey to provide their personal opinion about Twitter, they stated that Twitter is a very useful tool to "discuss, spread and share information" and to build "ties of soft communities", people shared insights on how they changed their mind about Twitter: "I was initially very sceptical. I've now been to a couple of conferences where it [Twitter] was used as a (very successful) back channel and have really realized its potential as that."
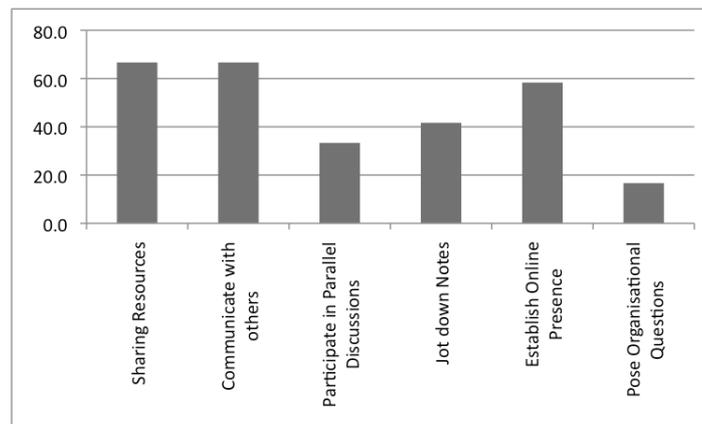

Figure 4: Purposes of using Twitter by attendees (role) at conferences.

The survey also included an open-ended question: 'Why do you think Twitter encouraged the discussion about topics?' The answers to this open-ended question can be clustered in 3 types: answers referring to organizational enhancements, answers concerning the better sharing of information, and answers with respect to the easier building of a conference-community. For example, some people who participated in the survey answered that Twitter "gives people a greater sense of community", "encourages participation" and thus "in the backchannel we discussed things more deeply than the guys on stage".

Moreover, participants were asked about their opinion on what the added value of tweeting in conferences were. Many answers referred to the sudden evolution of a social network like "Twitter helps you reach out to others with similar interests, provides networking potential, and allows people who could not attend to gain some value from your experience". Also, the extension of one's own view on the conference was seen as an added value: "You get to know unexpected but interesting topics and persons. This emerges networking and knowledge building". Furthermore, the use of Twitter at a large conference (Online Educa Berlin in 2008, for example) seemed to have "alerted delegates to the emerging issues and discussions they might otherwise have missed". Less positive points of view regarding the use of Twitter in a conference setting were also uttered: "Twitter can be distracting. For people actually

there, they maybe spend more time with their computer or phone than talking to people."

5   Conclusion

Microblogging at conferences seems to be an additional way of discussing presented topics and exchanging additional information. It is not limited to the face-to-face audience or the location of the conference. Microblogging rather allows virtually anyone to actively participate in the thematic debates. Our research shows that several conference speakers and attendees are using Twitter for various purposes. Communicating and sharing resources seem to be one of the most interesting and relevant ways in which one microblogs. Other microblogging practices in conferences include following parallel sessions that otherwise delegates would not have access to, and/or would not receive such visibility. Content attached to tweets was reported to be mostly limited to plain text and web links.

To further research on microblogging in conferences, we will have to work closely together with organizers of conferences as to better promote microblogging as an information channel directly associated with the event. Sending out links to the survey during or shortly after the conference seems to be a crucial point for later examination, as people have mostly filled out the surveys during the days of the conference.

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