

Microblogging In Technology Enhanced Learning: A Use-Case Inspection of PPE Summer School 2008

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Abstract. Microblogging is the latest variant of blogging which allows users to post very short messages. Due to its ease interface, the possibility of directly addressing other users, and several surrounding services microblogging becomes more and more used in scientific conferences as main back-channel. This paper discusses microblogging with Twitter as main information back-channel in an exemplary use case Summer School.

Key words: microblogging, twitter, social networking, information retrieval

1 Introduction

Microblogging is becoming serious in informal learning and networking. In the recent months we have witnessed the adoption and usage of such channels in conferences and other academic gatherings as forms of enabling the spontaneous co-construction of digital artefacts. These artefacts are usually shaped around note-taking, sharing of resources and individuals' prompt reactions to the events in progress. Additionally, such approach can also provide individuals with visibility and opportunities to develop their voices in topical discussions of their area of interest at that given moment. This paper aims to describe the use of Twitter during the Prolearn, Palette, EATEL (PPE) Summer School experience, and to analyze the impact it had on this given context according to the users' own views and post-reflection.

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2 What's this micro-blogging all about?

Microblogging is a variant of blogging which allows users to quickly post short messages on the web for others to access. These messages can be restricted to a certain number of individuals, sent exclusively to a specific contact, or made available to the World Wide Web. Microblogging has impressively become more and more popular in the last year, and Twitter is probably the most well known microblogging platform currently available on the web, when compared with other micro-blogging applications, such as Plurk, Jaiku and Prownce (cf. [3]). Twitter works as a microblogging tool and also as a free social network site, which enables people to follow others, i.e., read about what others are doing, and establish communication with up to 140-character messages. Although, its main purpose apparently aims at answering "*what are you doing?*", its usage is far from being restricted to what at first may seem a rather trivial way of prompting communication. The number of Twitter users has increased massively in the last months. It has also made its way across different sectors, among which education and research are included.

2.1 Why microblogging, and especially twittering?

It is difficult to account for the reasons why one should use Twitter to report on what one is doing in a rather short message, when there are so many other alternatives to publish information and connect to people on the web. It becomes even harder to understand it when, at a first glance, Twitter seems a rather vain channel where people report about their need for a cup of coffee or complain about the weather [4]. Although "*chitchat*" is indeed part of the Twittersphere, there is also a critical mass of participation on Twitter [5]. A recent study entitled *Why We Twitter: Understanding Microblogging Usage and Communities* [3], has established a taxonomy of user intentions on Twitter, in which "*daily chatter*" has emerged along with other three types of tweets: "*conversations, sharing information and reporting news*" [3, p. 7]. The recognition of the relevancy of Twitter, and microblogging in general, is quite personal and strongly interrelated with whom we choose to follow, and who follows us, in this micro-world. Such choices are usually determined by individuals' shared interests, which are often the basis for the sharing of information in fluid dialogs. As Siemens states, "*Twitter is a conversation, not a monologue*" [4]. Appealing to its users is also the immediacy with which such conversations take place and evolve. As Stevens emphasizes in [5] the true value of Twitter is in the network(ing).

2.2 Twitter + #tag = Tweme

Another important aspect of Twitter is that it not only allows communication with one's Twitter network, it also allows individuals to automatically co-construct a resourceful site where the active participation of a micro-network on a given topic is aggregated through a special hashtag. This is called a Tweme (a Twitter meme), and it is proving to be a rather preeminent practice in face

to face conferences and other types of learning gatherings in which people are able to convey the spirit of such events in brief messages. Twemes are allowing the dispersed network to come together into one single event almost in an instant way. A Tweme also enables the aggregation of other forms of content related with that joint experience, as additional resources, such as Flickr photos and Del.icio.us bookmarks, can automatically be linked to it through the use of micro-metadata (unique tags). In the case under study the hashtag chosen was #scohrd, as this tag hadn't yet been used in Twitter, Flickr or Del.icio.us. Furthermore, it alluded to the Summer School experience (#scohrd = agglutination of school + Ohrid), making it easier for users to relate to it. The hashtag was broadly used to aggregate content relate with it (cf. figure 1)⁵. Twemes have become a quite successful way of connecting the remote network to a given event and also creating a collaborative resource based on spontaneous reflection and unpremeditated story-telling.



Fig. 1. Tweme aggregation for the hashtag #scohrd

3 The Use Case of PPE Summer School 2008

The PPE Summer School 2008 took place from June 15-21 2008 at Ohrid, FYR of Macedonia⁶. It brought together PhD students with experienced researchers

⁵ See <http://twemes/scohrd> for the whole aggregation on the Summer School.

⁶ See <http://www.prolearn-academy.org/Events/summer-school-2008/> for more information.

from PROLEARN, PALETTE, and EA-TEL and several other EU projects such as MATURE, APOSDLE and iCamp. PROLEARN is a Network of Excellence financed by the IST programme of the European commission. It deals with technology enhanced professional learning and aims to bring together the most important research groups in the area of professional learning and training. PROLEARN is now working under the umbrella of the EATEL Association. EATEL is the European Association of Technology-Enhanced Learning whose objectives are to promote education in TEL and to support research in this area. The PALETTE project aims at facilitating and augmenting individual and organisational learning in Communities of Practice (CoPs). One of the main goals of the Summer School is to support collaboration among PhD students working in the disparate fields of expertise which promote the advancement of TEL at the workplace.

3.1 How blogging was planned to be

Prior to the Summer School participants were advised to blog about the experience they were about to start (*"If you don't have a blog yet, please create one."*⁷). The blogging activity would enable all parties involved to establish both an on-line presence and co-develop digital artefacts, which would help the organizers with the gathering of tangible evidence and feedback on the event. Aggregation of the personal blogs and additional resources through RSS feeds and an unique tag was also part of the organisation teams plan, as it was announced to the students via email. Introducing the blogging strategy during the opening session and distributing prizes to the best bloggers had also been part of the plan. However, Summer Schoolers inadvertently got involved in other activities, as explained below.

3.2 How Twitter got enrolled as main backchannel

When the organizers started collecting the participants' personal blogs' URLs, some of them also suggested using microblogging via Twitter. This was eventually rolled out as part of the main Summer School's online presence, which its organizers also ended up supporting for the following reasons: (1) its interface is easy and intuitively; (2) Tweets are shorter than regular blog posts, and therefore easier to create and to follow; (3) Twemes automatically aggregated the Summer Schools generated content through the use of the same unique tag in Flickr and Delicio.us. The information about using Twitter as a back-channel for communication was sent to participants through the Summer School mailing list (*"Maybe microblogging during the Summer School is the better idea."*). It was also shortly announced during the kick-off session and several times during the first day. Nevertheless, the message about Twitter ended up spreading especially through word of mouth communication as a source for fast and direct

⁷ The quotes in this section are taken from e-mails sent to the attendees of the PPE Summer School by the blogging organisation team.

feedback⁸. To accommodate the Twitter back-channel a new, and shorter tag, was introduced to the attendees: "scohrd" should be use instead of "prolearnschool2008" (7 characters vs. 24 characters). Still, the blogging organizing team announced it at the begin of the second day, promoting its emergent success: "The reflection of the Summer School by blogging has actively started. The main channel for information is <http://twemes.com/scohrd>. Please have a look on it because the freshest and the hottest information can be found only from there."

4 Twitter message analysis and survey

To get a clearer understanding how microblogging was used and perceived during the Summer School, we both analysed all tweets of the Summer School and conducted a survey asking for feedback from all attendees.

4.1 Analysis of Twitter messages

The first part of our evaluation was to investigate the Twitter messages of the whole Summer School. Each day started with two lectures in the morning, followed by parallel workshops on specific subjects in the afternoon. If we assume that Twitter was used as a channel for lecture- and workshops-specific discussions the analysis of Tweets should bring up some evidence that message are related to the programme.

We used Wordle (www.wordle.net) to create the visualisations of all tweets during the Summer School. Figure 2 shows the tweet cloud of Wednesday's activity. The two lectures on this day were about "Personal Learning Environments (PLEs)" and "Practice improvements by improving Communities of Practice" - the two workshops focused on "Mobile and contextualized Learning" and "Personal Learning Environments".

As we can see in Figure 2 the most frequently used terms in the tweets of Wednesday were: "learning", "PLE", "technology", "system", "think" and "students" what directly corresponds to the topics of this day. This relation between very frequently used words in tweets and the programme was also found in tweet clouds of the other days [1]. Comparing all tweet clouds during the first two days Twitter was mainly used to exchange only messages without links to other resources. Starting from Wednesday Summer School attendees shared a lot of links related to lectures and workshops via Twitter. The term "http" in the tweet clouds indicates this sharing of links. Putting all tweets of the week together into one tweet cloud it shows that the term "learning" was definitely to most often used word during the whole Summer School followed by "http". The next section presents the survey, which is the second part of our evaluation.

⁸ <http://www.jstor.org/pss/2118512>

focusing on the usage of Twitter before the Summer School. According to the respondents, only 10 (16.67%) of them had a Twitter account before attending the Summer School. They used Twitter in both personal as well as professional context. Those who stated to have no Twitter account were asked if they signed up during the Summer School. When asked the reason for not signing up with Twitter during the Summer School, the participants elicited technical issues as the main motive. Some respondents also alluded to the fact they decided to adopt a more passive approach, as they preferred to take part in the microblogging activity as observers and not engage fully with it. The participants who did sign up to Twitter during the summer school stated that they opted to do so, because they felt that there was where the action was taking place and they wanted to be part of it. Curiosity also played a strong role in the trying out of Twitter. Many survey answers state individuals were intrigued about it and wanted to try it for themselves. A considerable number of individuals also pointed out that peer influence was another of the drivers for the signing-up with the microblogging service. A few individuals also answered they decided to sign-up and use Twitter because they were "interested in observing how it could support communication", provide a space for "silent discussion" and enable the collection "of information and impressions".

Concerning the use of Twitter during the Summer School, as it can be seen in figure 3 , 10 (37%) of the attendees signed up to Twitter during the Summer School, whereas 6 (66.67%) had already a Twitter account before the Summer School, and actively posted Twitter messages during this period. 50 (83.33%) of the respondents said they read Twitter messages posted by other attendees while in the Summer School. When asked about whether they found Twitter encouraging to join discussions about topics presented during the Summer School, 45 (70%) answered positively.

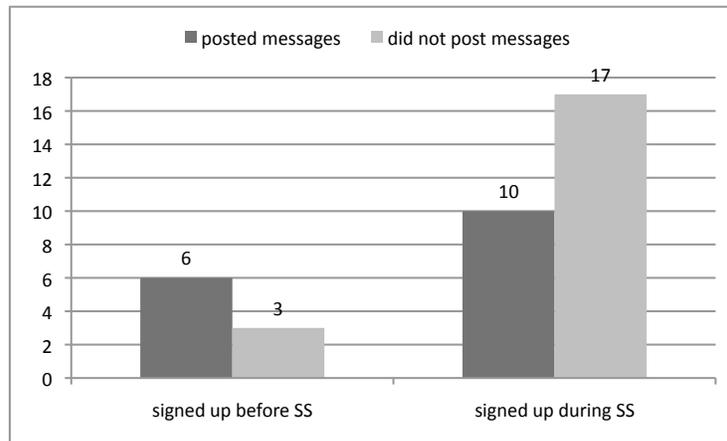


Fig. 3. Distribution of Twitter users according to sign up time and posting of messages

The last part of the survey asked for feedback about the use of Twitter after the Summer School. 15 (55.56%) of the attendees who signed up to Twitter during the Summer School have reportedly been using Twitter after the Summer School. 12 of these attendees posted less than 5 Twitter messages, and three between 5 and 10 messages. When asked about what users liked about Twitter in general, a great part of the survey answers tell us the use of this channel to communicate with others and engage in sharing of information was largely appreciated. Its user-friendly interface was also one of the other main aspects stressed out by the survey's respondents. Relevant to our study was also the fact that a good number of answers focused on the effectiveness of such channel for immediate communication. Although the majority of answers received inform us that, in general, microblogging was well accepted and regarded as an interesting approach, most individuals also pointed some negative aspects to it. The limited length of the messages was one of the main points of criticism, only preceded by Twitter's design structure, which seemed to displease many of the summer schoolers. In their own words, it was quite limitative. A considerable number of users also mentioned Twitter's technical problems [during the summer school it reached the "*over capacity status*" several times] as a rather negative aspect of this tool. A minor group of the answerers considered Twitter to be rather distracting and some were not positively impressed with the overload of messages and information generated in that channel.

5 Outlook

Based on this small study we were able to conclude that in general terms Twitter was well accepted and regarded as a useful tool for spontaneous and immediate communication. In a broad sense it helped capture the spirit of the moment in a very easy way, promote the sharing of ideas and prompt unplanned discussion about relevant topics. However, there's no such thing as perfection, and Twitter also received considerable criticism, especially related with its technical limitations. Although microblogging seemed to have been favored by a considerable number of people, some felt quite overwhelmed by its rather chaotic structure, as Twitter and Twemes do not allow threaded discussions and organisation of content into topical areas. This leads the researchers to infer that, as it stand, Twitter can be helpful to capture the atmosphere of a given event, and enable individuals to participate actively and input their ideas as they occur. Nevertheless, such approach doesn't seem to comply with everyone's learning styles. This leaves us to conclude microblogging can be used as an interesting discussion and sharing back-channel in learning events. Yet, microblogging does not present us with an ubiquitous learning strategy. Another interesting aspect that emerged from this short study is that, just like it often happens in many other social networking sites, the signing-up to and participation in such venues is influenced by peer-users. In this particular case participation was also driven by the need of the individual to be included in shared online spaces where the offline discussions were also taking place [2]. There is a chain-reaction factor associated with

active participation in this kind of networks and the need for the individual to be where the action is. Even two weeks after the Summer School more than half of all attendees who got in touch with Twitter the first time, used it again to read or post messages.

The growing adoption and use of twitter in the Summer School happened in a rather viral way. There was no initial intent to use or analyze the impact of twitter on the group, as no strategy had been developed and the entire process was totally unexpected. Thus, the idea to carry out a small study emerged from the reality in which the researchers themselves were involved, as participants. In this sense, the study offers limitations as all the data collection and analysis strategies had to be conducted a posteriori, and within a very short time frame, which didnt allow the researchers to engage with more advanced research methods. This is something the authors plan to overcome in their next studies related to the use of microblogging. If we want to draw any pattern of using microblogging in group communication, we need to observe more groups where microblogging is an essential part of the communication back channel. With this it may become possible to understand how microblogging can be integrated as means for rapidly providing feedback to presenters, to derivate group communication patterns and to support reflection with the attendees.

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