Chapter 4

Grouping the Similar among the Disconnected Bloggers

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ABSTRACT

Social interactions are an essential ingredient of our lives. People convene groups and share views, opinions, thoughts, and perspectives. Similar tendencies for social behavior are observed in the World Wide Web. This inspires us to study and understand social interactions evolving in online social media, especially in the blogosphere. In this chapter, the authors study and analyze various interaction patterns in community and individual blogs. This would lead to better understanding of the implicit ties between these blogs to foster collaboration, improve personalization, predictive modeling, and enable tracking and monitoring. Tapping interactions among bloggers via link analysis has its limitations due to the sparse nature of the links among the blogs and an exponentially large search space. The authors present two methodologies to observe interaction within the blogs via observed events addressing the challenges with link analysis-based approaches by studying the opinion and sentiments of the bloggers towards the events and the entities associated with the events. The authors present two case studies: (1) “Saddam Hussein’s Verdict” and (2) “The Death of Osama Bin Laden.” Through these case studies, they leverage their proposed models and report their findings and observations. Although the models offer promising opportunities, there are a few limitations. The authors discuss these challenges and envisage future directions to make the model more robust.

DOI: 10.4018/978-1-4666-2806-9.ch004
1. SOCIAL MEDIA: AN EMERGING PLATFORM FOR COMMUNICATION, INTERACTION, AND EXPRESSION

With the advent of Web 2.0 and its increasing participatory nature, the social media has become an ideal platform for analyzing the pulse of over 2 billion Web-aware people of the world (Internet World Stats, Usage, and Population Statistics, 2011), which is rapidly increasing every second. Social media includes blogs, media sharing sites, micro-blogging sites, social bookmarking sites, social networking sites, social news sites, wikis, and many other forms of media having an online presence in the Web. In recent times, social media has become more than a place to socialize. It has become a mighty platform for the common people to express his opinion and forming online communities. These virtual communities have proved to be firing grounds for various debates, protests as well as a digital instrument against tyranny and for democracy. It has led to the democratization of the Web. Social media has been integral in putting a spark to the, “Iranian Twitter Revolution” (Quirk, 2009), “Egyptian Facebook protests” (Masr, 2009) and recent movements like “The Anna Hazare Movement against corruption” (Facebook, 2011) in India. As one Cairo activist succinctly puts it, “We use Facebook to schedule the protests, Twitter to co-ordinate and You Tube to tell the world” (The Arab Spring’s Cascading Effects, 2011). These Web sites are used for coordinating actions, organizing events, mobilizing crowds, disseminating news, and expressing opinions. The modern social media has revolutionized the way, the world expresses and shares opinions and views in public, making the human society, a small world to live in, and share each other’s thoughts. It has become a platform to discuss a wide spectrum of topics varying from politics, economics, company products, personal experiences, science and technology to cooking recipes. Thus social media acts as an enabler to influence and propagate ideas among people who are connected to one another through these social media websites, which has further led to the realization of collective action (Tarrow, et al., 1994). A systematic methodology to study the role of social media in the contemporary forms of collective actions has been proposed in Agarwal et al. (2011) illuminating several fundamental yet theoretically obscure aspects of collective action theory.

The social nature of the Web seems to be increasing; with people getting connected to each other every single second and interacting through social media sites. Blogosphere, for instance, has been growing at a phenomenal rate of 100% every 5 months (Technorati, 2008). BlogPulse has tracked over 160 million blogs till November 2010 (BlogPulse Stats, 2011). Facebook recorded more than 800 million active users as of January 2012 (Facebook Fact Sheet, 2012); Twitter amassed nearly 200 million users in March 2011; and other social computing applications like Digg, Delicious, StumbleUpon, Flickr, YouTube, etc., are also growing at similarly terrific pace. This clearly shows the awareness and penetration of social media among individuals and their daily lives. The widespread adoption of social media certainly makes it a lucrative area for researchers converging from various disciplines such as, anthropology, sociology, political science, computer science, mathematics, economics, marketing, management, etc.

In this chapter, we focus on the blogs and try to understand the hidden ties among them in the blogosphere. Blogosphere is the virtual universe of all blogs written by people all over the world, in various languages. Blogosphere is now a huge collection of discussions, commentaries, and opinions on virtually every topic of interest. The phenomenal growth in the blogosphere is evident from the fact that more than two blog posts on an average are created every second (BlogPulse Stats, 2011). A blog is a website that allows individuals to write about different topics. A blog site typically consists of blog posts arranged in reverse chrono-