

# Chapter 51

## Interactivity Redefined for the Social Web

**V. Sachdev**

*Middle Tennessee State University, USA*

**S. Nerur**

*University of Texas at Arlington, USA*

**J. T. C. Teng**

*University of Texas at Arlington, USA*

### ABSTRACT

*With the trend towards social interaction over the Internet and the mushrooming of Web sites such as MySpace, Facebook and YouTube in the social computing space, practitioners and researchers are motivated to explain the sudden surge in user interest. The authors propose that interactivity is an important and appropriate subject of investigation to shed light on this explosion in social media use. Based on a review of the extant literature, they justify the use of interactivity for addressing research questions motivated by this new phenomenon. In particular, they propose a redefinition of interactivity for the social computing domain and term it Social Computing Interactivity (SCI). The authors suggest possible operationalizations of the dimensions of SCI and explore theory bases which would inform a study of their relevance in predicting the continued growth of social computing.*

### INTRODUCTION

The recent explosion in the individual use of web-sites such as MySpace, Facebook, YouTube and others, has generated a lot of buzz in the media. This buzz has not been without valid reason, as is evidenced by the amount of traffic these sites draw and the valuation being assigned to these companies, without any significant revenue streams to justify

those valuations (e.g., Google acquisition of YouTube for \$1.6 billion and Microsoft's investment of \$240 million in Facebook). The number of users visiting these sites as well the growth rate they exhibit is staggering (see Table 1).

Given the extraordinary success of these sites, it behooves us to address the following questions:

- a. What is the motivation for users to participate in social computing?

DOI: 10.4018/978-1-60566-368-5.ch051

- b. What will it take for these sites to retain existing users and attract new ones?

However, before we attempt to answer these questions, it is pertinent to define social computing and have some sense of how popular it is.

## **Social Computing**

According to Schuler (1994), social computing refers to any type of computing where software serves as an intermediary for a social relation. However, his conceptualization is very broad and he includes in it the instance when the government devises policies involving software development. A good definition from the IBM Social Computing Group (IBM n.d.) is given below.

*“Social computing refers to systems which support the gathering, representation, processing and dissemination of social information, that is, information which is distributed across social collectivities such as teams, communities, organizations, cohorts and markets.” (IBM n.d.)*

We define social computing as computing where the user takes an active role in the process, often creating content or modifying the computing environment, and the computing experience extends from the individual to the social. In order to make our conceptualizations relevant, we limit the scope of our analysis to websites, and exclude applications such as e-mail and independent instant

messaging applications. We expect our research to extend to mobile computing too, since the distinctions between the computer and the phone are becoming hazy.

## **Current Trends**

According to a recent report by Forrester Research (Li 2007), 48% of US adult online consumers participate in activities such as publishing blogs/webpages, uploading video to YouTube and other sites, commenting on blogs, posting reviews, using social networking sites, or simply consuming user generated content. This increase in interest in social computing is supported with some web traffic statistics. According to a February 2007 report from Hitwise (Prescott 2007), the top twenty social networking websites accounted for 4.9% of Internet Traffic in September 2006, a growth of 96% over September 2005. YouTube.com was the 26th most popular website on the internet in September 2006 (Prescott 2007). YouTube traffic alone comprises approximately 20% of all HTTP traffic, or nearly 10% of all bandwidth usage on the Internet (Ellacoya Networks 2007). While the traffic statistics above indicate a high level of user activity, there are few sites, if any, that have a viable business model. However, because many of these websites are not very capital intensive until they reach a certain scale of traffic, there is a proliferation of clones of popular sites such as MySpace and YouTube.

Given the statistics above, it is important to

*Table 1. Usage and growth of some social Websites*

Website	Unique U.S. users (Sept.2007, Millions)	Growth from previous year (percent)
MySpace	68.1	23
Facebook	30.6	129
Flickr	13.1	90
Bebo	4.4	83
Imeem	3.2	1,590

Source: Businessweek, November 5, 2007 (pp. 24)

13 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/interactivity-redefined-social-web/36063](http://www.igi-global.com/chapter/interactivity-redefined-social-web/36063)

## Related Content

---

### Kernel-Based Machine Learning Models to Predict Mitigation Time During Cloud Security Attacks

Padmaja Kadiriand Seshadri Ravala (2021). *International Journal of e-Collaboration* (pp. 75-88).

[www.irma-international.org/article/kernel-based-machine-learning-models-to-predict-mitigation-time-during-cloud-security-attacks/289344](http://www.irma-international.org/article/kernel-based-machine-learning-models-to-predict-mitigation-time-during-cloud-security-attacks/289344)

### Collaborative Engineering Communities- Architecture and Integration Approaches

Norbert Gronau (2004). *E-Collaborations and Virtual Organizations* (pp. 120-150).

[www.irma-international.org/chapter/collaborative-engineering-communities-architecture-integration/8898](http://www.irma-international.org/chapter/collaborative-engineering-communities-architecture-integration/8898)

### Group Decision Support Systems

John Wangand James Yao (2009). *E-Collaboration: Concepts, Methodologies, Tools, and Applications* (pp. 82-89).

[www.irma-international.org/chapter/group-decision-support-systems/8776](http://www.irma-international.org/chapter/group-decision-support-systems/8776)

### A Web-based Learner-Controlled Adaptive Group Formation Technique

Alexandros Papadimitriou, Maria Grigoriadouand Georgios Gyftodimos (2014). *International Journal of e-Collaboration* (pp. 14-34).

[www.irma-international.org/article/a-web-based-learner-controlled-adaptive-group-formation-technique/105473](http://www.irma-international.org/article/a-web-based-learner-controlled-adaptive-group-formation-technique/105473)

### Establishing Reasoning Communities of Security Experts for Internet Commerce Security

Andrei V. Kelarev, Simon Brown, Paul Watters, Xin-Wen Wuand Richard Dazeley (2011). *Technologies for Supporting Reasoning Communities and Collaborative Decision Making: Cooperative Approaches* (pp. 380-396).

[www.irma-international.org/chapter/establishing-reasoning-communities-security-experts/48257](http://www.irma-international.org/chapter/establishing-reasoning-communities-security-experts/48257)