Chapter 28

Social Software in Customer Relationship Management:
A Study Exemplified in Instant Messaging Networking

Ammar Memari
University of Oldenburg, Germany

Jorge Marx Gómez
University of Oldenburg, Germany

Waad Asaad
University of Oldenburg, Germany

ABSTRACT

During the fast growth of social media and software, social networks are forcing companies to increase activities in their traditional Customer Relationship Management (CRM) systems. The relationship between companies and customers changed years ago: the customer has obtained more and more control over it through the communication channel, regarding the company and its products, so companies must respond to this change.

In this chapter, we present PurpleBee, a tool on top of Instant Messaging networks that serves as a communication point between the company and their customers. The application manifests itself as a "buddy" on the list of buddies the customer has on his IM service and allows him to interact in different ways with the company through sending and receiving Software Agents.

INTRODUCTION

With the ascending acceptance and adoption of the Web as the main platform for publishing and sharing ideas, and with many companies moving their whole information infrastructure to the Web with the advent of the enterprise portal, and since many vendors are and will be flooding the service market every day (Seeley, 1996), finding our sought-after resources that are buried under a big pile of useless irrelevant ones can be difficult, tedious and time consuming. Growing with the pure amount of data, the universal accessibility of data over the internet, and the interconnection of heterogeneous databases, a pressing need emerged to deal with data not only in a syntactic way, but also to treat it semantically (Bäck, 2002). Adding semantics to the description of Web resources can raise findability by allowing the repetitive task to be assigned to machines, and aids in loosening vendor lock-in and lowering dependency which can be achieved by using semantic relations to allow the requester to have a clearer idea about available alternatives.

The lack of adaptivity in applications does not originate only from a content problem but rather also from an architecture problem. The inflexible architecture of business applications causes them to have large setup costs, long customization time and inability to adapt to ever-changing business requirements (Kassem & Schult, 2008).

In this chapter we discuss how social software can be used to improve the Customer Relationship Management and to examine how social software can be used effectively in enterprises. Then, we present a framework for helping developers rapidly produce robust and reliable adaptive applications. The framework takes advantage of existing networks and relations and leverages them using nature-inspired algorithms. The rest of the paper continues as follows: background information about social insects, followed by defining the problem. After that comes a chapter addressing architectural Component-Orientation issues then a chapter for followed models and techniques and in the end we show the results of our lab experiments and wrap up.

THE CONCEPTS OF WEB 2.0 AND SOCIAL SOFTWARE

In the last few years, "Web 2.0" and "social software" were the key words for a remarkable career. The term Web 2.0 and Social Software are closely linked. Tim O'Reilly has defined these innovations and developments as "properties of Web 2.0" in his article "What is Web 2.0" as follows:

Services instead of software in the package: Services of the application are located in the foreground, and not in the user interface. Thus, the applications are independent from the operating systems and the equipment.

Mixable data sources and data transformations: The applications have to collect the primary task data, which must be easily available, and that makes the combination with other sources possible.

Architecture of participation: The active use of the parties is a fundamental property of Web 2.0 from the users to developers, operators of web sites or authors. The results of this active use should be stored and documented for a long-term.

Web 2.0 stands for general principles and developments in the WWW, which supported by technologies such as Ajax or RSS.

Networks rather than communities: In Web 2.0 applications, there are options for the natural need satisfaction, such as communication, self-presentation, documentation, and created categorization. Through the establishment of networks, there is a possibility for the exchange between users without limits.

Social Software offers for all participants the opportunity to communicate, get information and cooperate. Under "Social Software" we can find applications that support human interaction. The broad spectrums of social software applications

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