



**ATENEO DE DAVAO UNIVERSITY  
Computer Studies Division**

**Senior Project**

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**DEVELOPING A SOCIAL NETWORKING SITE WITH AN  
AJAX-BASED INSTANT MESSENGER**

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*School Year:* SY 2006 -2007

**DEVELOPING A SOCIAL NETWORKING SITE WITH AN  
AJAX-BASED INSTANT MESSENGER**

**An Independent Research Presented to  
The Faculty of the Computer Studies Division  
Ateneo De Davao University**

**In Partial Fulfillment  
Of the Requirements for the Degree  
Bachelor of Science in Computer Science**

**BY**

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**MARCH 2007**

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## **Abstract**

Social Networking sites are becoming more popular on the web. It is one of the most visited sites on the Internet. As it grows bigger and expands further, it attracts more users from all over the world. Instant Messengers are also one of the most used desktop applications today. Instant Messengers are becoming an area of importance within the communications industry. Both Social Networking sites and Instant Messengers are on the top of the Internet hierarchy when it comes to how many users it has and how many logins it makes within a day. This project will make use of these two communication tools in order to make single application. This project aims to create a social networking site with an interactive web-based application that will make use of AJAX architecture. An interactive Instant Messenger that is AJAX-based. The web-based application will be made for a social networking site.

*Keywords:*

AJAX, Instant Messenger.

## Chapter I INTRODUCTION

### 1.1 Background of the Study

Making contact with different people on the web in this time and age has become more accessible for everyone. Online Social Networking sites, like Friendster, Myspace, and other websites that offers more or less the same services have become more and more popular to all people with different race, gender, sexuality, interests, and much more. These Social Networking sites help the users by letting them communicate with their old friends, help the users make new friends, and a lot more with the use of sending private messages.

Instant Messaging (IM) is also a way of communicating or making friends with other people on different countries. IMs are somewhat related to Networking sites, but IMs let its users communicate with one another a lot faster because it requires the users to be online at the same time if not they can always leave an offline message. Among all IM's available, Yahoo! Messenger, American Online or ICQ (I seek you), and MSN are the most popular IM's.

Most of the IM users also have an account on social networking site. One good example of this is that, 1<sup>st</sup> the users have an account on social networking site which does not have an IM feature, then he/she made contact with another user by sending him/her a message. For sometime they have been exchanging Private Messages (PM) to each

other. Until one day, one of the users had been introduced to this Instant Messaging which can help them communicate faster. So this user invites his/her friend to also have or sign-up an Instant Messaging account so that they can talk or chat faster. But that's two accounts with one purpose, to communicate with one another.

Wouldn't it be a good idea to be part of a social networking site that has an Instant Messenger as its feature? The idea is that those people who have an account in a social networking site that has an IM feature can communicate faster by using that new IM feature. It is an AJAX-based IM which all the members and users can use. There is no need to sign-up for a new account. All the users have to do is to sign-in to their account, and the application will automatically detect the user log-in details. Once Log-in, the users can now use IM feature of the social networking site. The AJAX-based IM can show all of the user's friends on his/her Network. No need to register for a new ID. The AJAX-based Instant Messenger will use the social networking site's database.

## **1.2 Technology Application Context**

Meebo.com offers an Instant Messaging where Yahoo!, AIM, ICQ, and MSN users can make use of when the main Applications are not accessible. Meebo.com used AJAX to make it possible.

Currently, MySpace.com has MyspaceIM, which is a downloadable application that needs installation on the user's computer. It is closely the same with the Yahoo IM.

Having an account with a social networking site gives its users an opportunity of making friends of the same interest. Some social networking sites also offer an online Resume, which is helpful when you are looking for a job. However, the drawback to this social networking site is that the communication is not real time. The only way to communicate with other users on the same social networking site is to exchange Private Messages which will only be opened by the user when the user is online; as also requires page reloads thus make the users wait for a period of time.

Most AJAX-based applications today are made for E-mails, Search Maps, and many are substitutes of the old desktop applications, like Yahoo!, ICQ, MSN and all other desktop Instant Messengers. None of these AJAX-based websites or applications are made for Social Networking sites. This study will create an interactive social networking site with an AJAX-based Instant Messenger feature for the users. The output will be based on the AJAX architecture.

The study will also answer these problems:

- Eliminate having two accounts with the same purpose, to communicate
- Currently MySpace offers IM but only runs when installed on a machine
- Provide accessibility to the users.
- No more installation on the user's desktop machine

- Show the possibility of a new and faster way of communication in social networking sites.

### **1.3 Objectives of the Study**

The main objective of the study is to make an online and interactive social networking site with an AJAX-based Instant Messenger feature, where users can chat with their friends on their friends list. Also has a search function where the user can search for a specific user by querying the user's email address or name or etc... The application will be Develop using AJAX, so there will be no need of downloading the application because it will be able to run on most Web Browsers.

The project will be Develop for the benefit of all the users of the social networking site; will help the users communicate a lot faster. The project will demonstrate the possibility of adding a new way of communication for a social networking site.

The study will create a social networking site with an AJAX-based Instant Messenger feature. The proponents will focus on developing the AJAX-based IM.

### **1.4 Significance of the Study**

As Internet awareness grows, many people are making use of the Internet as a way of making friends, dealing businesses, and even developing relationships with other people on different countries. With those needs, the rise communication tools such as, E-mails, Instant Messengers, and Social Networking sites became more popular on the

Internet. In the eyes on the Businessmen, it is a good way of making profit by having advertisements on popular websites, but on the eyes of the common people, it is an opportunity of making friends and having relationships with different people all over the world. People can do so much with the help of the Internet.

This study is significant to those people who are using or part of a social networking site who requires a real-time communication between other users of the same social networking site. This study intends to make the communication easier to users of a social networking site because it will offer a real-time chat between the users. The communication is real-time because it requires both users to be online at the same and there will be no page-reloads because the application will be Develop based on AJAX architecture.

An interactive Instant Messenger for a social networking site is significant because it can provide a real-time communication between the users. An online Instant Messenger makes the communications faster between the users of a social networking site. With the use of the online Instant Messenger, the users of the social networking site can either choose to chat with the other users before he/she will add him/her to his/her network, thus it ensures that the people on the users network are his/her friends.

## **1.5 Scope and Limitation of the Study**

The study will focus on implementing an interactive social networking site with an AJAX-based Instant Messenger feature for its users.

The aims of the Research:

- To create an interactive social networking site with an AJAX-based Instant Messenger feature for its users.
- To enable the users to search for other users
- To be able to chat with other users on the network.
- To provide a real time communication between users
- To provide an Instant Messenger for a social networking that will be accessible in any supported browser.
- Will ensure that the person who requests to be part of user's network is a friend of the user.

The Limitations of the Research:

- The project output will only be accessible to the members of the social networking site
- The project output will not have voice chat capabilities
- The output will only run on browsers which JavaScript is enabled.
- The output will only run on supported browsers.

## **1.6 Definition of Terms**

### **AJAX**

An acronym for Asynchronous JavaScript and XML is a web development technique for creating interactive web applications. The intent is to make

web pages feel more responsive by exchanging small amounts of data with the server behind the scenes, so that the entire web page does not have to be reloaded each time the user makes a change. This is meant to increase the web page's interactivity, speed, and usability.

### JavaScript

A scripting language developed by Netscape to enable Web authors to design interactive sites. Although it shares many of the features and structures of the full Java language, it was developed independently. Javascript can interact with HTML source code, enabling Web authors to spice up their sites with dynamic content. JavaScript is endorsed by a number of software companies and is an open language that anyone can use without purchasing a license

### JSON

Stands for "JavaScript Object Notation", is a lightweight computer data interchange format. JSON has the advantage, over XML, as a data interchange format in that it can be trivially parsed, by JavaScript, with JavaScript's built in eval() procedure. (This is important because of JavaScript's ubiquitous ness among web browsers.) JSON is JavaScript's object literal format.

### Document Object Model (DOM)

A description of how an HTML or XML document is represented in a tree structure. DOM provides an object oriented application programming interface that allows parsing HTML or XML into a well defined tree structure and operating on its contents. DOM Events allow event-driven programming languages like JavaScript, JScript, ECMAScript,

### Friendster

A popular social networking site that offers exchanging Private Messages between users. It also offers it users to display their profile on the internet. It also has a feature that enables their users to display their resumes for job application purposes.

### Rich Internet applications (RIA)

These are web applications that have the features and functionality of traditional desktop applications. RIAs typically transfer the processing necessary for the user interface to the web client but keep the bulk of the data (i.e maintaining the state of the program, the data etc) back on the application server.

### Instant messaging or IM

A form of real-time communication between two or more people based on typed text. The text is conveyed via computers connected over a network such as the Internet.

### XML

The Extensible Markup Language (XML) is a W3C-recommended general-purpose markup language for creating special-purpose markup languages, capable of describing many different kinds of data. In other words, XML is a way of describing data.

### PHP (PHP: Hypertext Preprocessor)

An open source, reflective programming language. Originally designed as a high level scripting language for producing dynamic Web pages, PHP is used mainly in server-side application software but can be executed from a command line interface or a stand alone GUI. It is the fifth most popular programming language in use today.

## CSS (Cascading Style Sheets)

A style sheet language used to describe the presentation of a document written in a markup language. Its most common application is to style web pages written in HTML and XHTML, but the language can be applied to any kind of XML document, including SVG and XUL. The CSS specifications are maintained by the World Wide Web Consortium (W3C).