

# INSTANT MESSAGING IN BUSINESS

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## ABSTRACT

*The popularity of chat rooms for personal computing has been a prelude to instant messaging (IM) in the business world. Just how extensive IM is in the business world, who is using it, how it is being used, what are the concerns with its use and what is the future of IM are explored in this paper. Current professional literature on IM was examined and a survey of full-time working MBA students from two geographical areas of the country was done to collect primary data to compare with the results of the literature search.*

**Keywords:** Instant messaging, IM, business use of IM, peer-to-peer communication

## INTRODUCTION

### What is IM?

Instant messaging is a set of protocols and an agent that lets users send messages back and forth over the Internet (or an intranet) in near real time. In its simplest and purest form, IM requires both parties to be logged on so a user knows that the other party is available and accepting messages. This is done by a server which keeps track of who is online and their IP addresses, which are supplied to anyone on a user's contact list. Communication between the users is then done on a client (peer) to client (peer) basis without the messages passing through the server (10). With the more centralized approach, the message from a user travels through a server or network of servers to reach the recipient.

### How extensive is it?

Estimates of how much IM is being used in the business world vary. Computerworld (16) reports that 42 percent of business Internet users use IM in the workplace even though 70 percent of IT departments do not support it. Network Computing (11) reports that 50 percent of US businesses and 30 percent of non U.S. businesses use IM, despite the fact that less than 1 percent of those businesses manage their IM applications. CIO cites research which indicates that the number of work-based IM users increased 10 percent during the first six months of 2002 reaching 17.4 million active users, 85 percent of companies have some level of IM activity, and only about 30 percent of these companies have established a corporate standard for IM (8). Zbar (19) reports on estimates that the number of corporate IM users will go from 18.4 million in 2002 to 229.2 million in 2005, with spending on such services to increase from \$133 million to \$1.1 billion.

**Who uses it?**

Regardless of which of the previous estimates is used, it is clear that many people in business are using IM and all the writers predict that such usage will increase. This seems to be a natural extension of IM from the personal computing arena to the business world.

**Which software?**

While there are approximately 25 IM software vendors in the market (19), the business market is dominated by a relatively small number of vendors which include AOL, MSN, Yahoo and IBM. There are other business IM packages such as the well known WiredRed which claims 3,500 corporate installations, but when compared with AOL's consumer IM software which claims 180 million registered users (4), they face a difficult time in becoming a major player in the corporate IM market.

**What do they use it for?**

IM is used in the business world by a variety of people for a variety of reasons, although a majority of IM use is unofficial and on consumer IM platforms (4). The peer to peer real time feature of IM makes it ideal for online meetings of two or more people, and IBM reports savings of \$48 million in travel costs by reducing the number of face to face meetings by using IM. IBM also reports a decrease in telephone and e-mail usage with the implementation of IM (5).

IM has found a use in E-commerce to help customers with their selection process while purchasing online. An example of this is Land's End, which provides IM for customers shopping online to ask questions of a Land's End representative. Another IM feature allows two customers to exchange comments. Land's End reports that customers using IM are 67% more likely to buy and spend 8% more than online customers not using IM (10).

The US Navy makes widespread use of IM which allows crew members aboard naval vessels to communicate directly rather than through a chain of command. In fact, the navies of the U.S., Canada, U.K., Australia, and Germany all use the same IM software over two networks – one classified and the other unclassified (7).

On the other hand, the financial services industry, with few exceptions, has not adopted IM on a widespread basis. A major concern is the lack of an archiving ability by IM software. In light of the recent fines of \$8.5 million levied on five Wall Street firms for failing to archive E-mails in an accessible place (15), it is understandable their reluctance to adopt a technology that does not have an archiving feature. This is reinforced by the Securities and Exchange Commission identifying e-mail and IM traffic as communications with the public that must be maintained and saved by companies (12).

**Some Concerns**

While there is much evidence of how IM is gaining in popularity with various users, there is also evidence that IT managers are very concerned with IM. As Edwards (8) writes "the thought of

employees flinging unencrypted messages through public networks, however, is enough to give almost any CIO the willies,” and he cites research which indicates that 22 percent of companies block IM traffic from their networks. These managers reflect the view of one security expert who believes that peer to peer software (IM) should not be let anywhere near a corporate network, and that it is guilty until proven innocent (13).

Vamosi (17) reports IM will be a likely target for hackers and cites examples of successful worms which have infected several of the more popular IM services. Festa (9) also reports on increasing incidents of spam attacks on some IM networks.

### **What needs to be improved?**

To address the concerns of corporate IT departments regarding the implementation of IM, vendors are working on products to address concerns with encryption, interoperability among IM systems, integration with existing directories, and message archiving (6).

AOL has announced that it has provided security and control features on its IM package AIM which will give IT administrators more control over IM. These upgrades are available now, but encryption is not currently available (18). These improvements come with an estimated cost of \$34 to \$40 per seat which will require AOL to convince companies with informal users who pay nothing to become paying customers. Yahoo’s Enterprise IM package offers the same features as AIM but also includes encryption capabilities (2). WiredRed Software’s Enterprise IM software provides secured end to end IM for users in server to client architecture which provides encryption along with security protocols (3). Microsoft’s entry, known as MSN Messenger Connect for Enterprises, has comparable features to those previously discussed and it will allow users to communicate with the 75 million MSN Messenger users but not with users of other services (1).

Interoperability between these Enterprise IM packages as well as those of IBM and Microsoft is yet to be seen. The Internet Engineering Task Force has approved the Session Interaction Protocol (SIP) working group to develop standards for defining a chat session among IM clients on different servers (2). Microsoft and IBM are supporters of this group, but AOL pulled its support. (4).

## **RESEARCH METHODOLOGY**

A survey was designed to determine what kinds of companies, classified by both principal business activity and size, are providing instant messaging to their employees, what IM software is being used, what are the expected advantages of its use, and what are the concerns, if any, regarding its use.

The survey was administered to graduate students in a Masters of Business Administration program who were employed full-time in businesses and organizations in southern New England. A second sample consisted of MBA graduate students who were employed full-time in Wisconsin. After removing responses from duplicated companies in each region, the resulting sample sizes were 61 and 53 respectively.

## SURVEY RESULTS AND DISCUSSION

Table 1 provides the summarized results for the survey. While the percentage of companies in Wisconsin providing IM was larger than the percentage of Southern New England companies providing IM, a Chi Square test on these results yielded a value of 0.8788 which is not statistically significant. In neither case was the percentage of companies providing IM to their employees as high as the percentages cited by most industry observers in the review of literature.

Table 1  
Summarized Results

	<b>Number of Companies Surveyed</b>	<b>Number of Companies Providing IM</b>	<b>Percentage of Companies Providing IM</b>
Southern New England	61	18	26%
Wisconsin	53	21	40%
Totals	114	39	34%

Table 2 shows the two samples listed by size of companies based on number of employees. Because the numbers are small, it is difficult to make any definitive statements, but it can be argued that for neither geographic area is it likely that the size of a company, in terms of employees, determines whether it provides IM to its employees.

Table 2  
Use of IM vs.  
Number of Employees

<b>Number of Employees In Company</b>	<b>Southern New England</b>		<b>Wisconsin</b>	
	<b>Number Of Companies Surveyed</b>	<b>No (Percentage) Providing IM</b>	<b>Number Of Companies Surveyed</b>	<b>No(Percentage) Providing IM</b>
1-50	5	2(40)	7	2(21)
51-500	16	5(31)	15	6(40)
501-2000	15	2(13)	7	5(71)
2001-10,000	11	2(18)	13	3(23)
Over 10,000	14	7(50)	11	5(45)

Examination of Table 3 indicates that a larger percentage of Southern New England companies provide IM to all employees than do the companies in Wisconsin. This is interesting in light of the fact that a larger percentage of companies in Wisconsin provide IM to its employees than do the Southern New England companies. The fact that in neither area is IM available to all employees reflects the fact that the administration of IM is not yet accomplished in many companies. Comments in several of the surveys revealed that some companies were in the

process of banishing IM but were not able to do so in every department, or that IM was available to only a select group of employees.

Table 3  
IM Available  
to all Employees

	<b>Southern New England</b>	<b>Wisconsin</b>
IM Provided by Company	18	21
IM Available to all employees	11	8

Table 4  
How is IM Being Used  
In Your Organization

<b>IM Use</b>	<b>Southern New England (n = 18)</b>	<b>Wisconsin (n = 21)</b>
Replacement for e-mail	9	8
Replacement for telephone	6	13
Communicate with customers	0	3
Increase worker productivity	9	9
Other	2	8

The results presented in Table 4 describing how IM is being used in organizations is, for the most part, consistent with the uses cited in the literature; the exception being that communicating with customers was not listed for any organization in Southern New England. It is interesting that for both geographic areas increased worker productivity was cited by a large percentage of organizations, which is consistent with the literature, despite the fact that no evidence could be found in the literature to support this statement.

As to which IM package is being used in the geographical areas, Table 5 does not reveal a great deal because of the small numbers. Southern New England with 6 companies each using AIM and MSN Messenger is probably more typical of national statistics than is Wisconsin with only 1 user of AIM.

Table 6 presents the results of concerns expressed by users with IM. Perhaps the most interesting number here is the overwhelming concern expressed with IM being a distraction. While this concern is expressed by a few writers, it was not among the concerns most cited in the literature. However, this is probably a very legitimate concern for the average user.

Table 5  
IM Software  
Being Used

<b>IM Software package</b>	<b>Southern New England</b>	<b>Wisconsin</b>
ICQ	1	1
Sametime	3	4
WireRed	0	0
IMAnywhere	0	0
MSN Messenger	6	6
AIM/AOL	6	1
Bantu	0	0
Jabber	1	0
Other	3	4
Unknown	1	6

Table 6  
Concerns regarding  
the use of IM

<b>Concerns</b>	<b>Southern New England</b>	<b>Wisconsin</b>
Lack of security	9	9
Overloading company networks	8	3
Lack of encryption	4	2
Can be a distraction	15	17
IM spam	3	1
Incompatibility	0	0
Monitoring of messages	5	5
Archiving of messages	4	3
Other	1	1
No concerns	1	3

## CONCLUSIONS

Instant messaging (IM) is yet another example of information technology introduced into organizations by users without much administrative or management foresight or control. It has been banned in some organizations, and the results of our survey indicate IM use may not be as widespread as some have speculated. Despite this, its popularity with users and improved Enterprise IM software by vendors, which will help to alleviate IT managers concerns, foretells a bright future for IM.

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