

# **How Has the Internet Affected the Way We Communicate Within This New Era? Can We Use This to Our Advantage?**

Brenda Lloyd  
Faculty of Business and Information Technology  
Whitireia Community Polytechnic, New Zealand

## **Abstract**

This paper reports on ongoing research aimed at investigating the interaction between Internet-based communication and career management. This includes knowledge management in a virtual environment and career management in the Internet environment. I aim to combine the students' need for good career information with the technology used in multiplayer interactive 3D gaming environments, which the Internet generation find so engaging supplemented by artificial intelligent 'bots' or other tools and methods available. This is the initial investigation into the current scene with regard to the tools available. It looks at some of the effects which the Internet has on the way we communicate over distance and how the changes in these may be used to improve the way we attract prospective students, and ensure they achieve the types of career which they aspire to. The prospective employers could also use some of these methods to widen their pool of recruits by allowing them to gain a more complete picture of their skills. Currently the differences between courses and their usefulness within employment are based on advertising and personal knowledge often presented in a traditional way for example text and images. The modern environment requires these methods to be updated to attract the new generation of Internet savvy players in order to become more effective.

## **Background**

The onset of the popularity of the Internet has permutated through every aspect of our lives as such places as government agencies, banks and the like make full use of it. This enables people to get answers for straightforward questions immediately, and allows them to get any relevant paperwork Millar-Jacobs (2003). Currently though many people use the Internet solely for the purpose of browsing and observing with a few who actively interact (Millan, Patterson & Constanzo, 2000; Topjobs UK, 2003), the modern tools available mean that this does not necessarily have to be the case.

### **History of the Internet**

In 1962 a 'Galactic Network' was proposed by JCR Licklider, who was the first head of computer research for the Defense Advanced Research Agency (DARPA) this idea developed into 'ARPANET' which is acknowledged as the precursor to the Internet as we know it and was implemented in 1971-72. It was originally a 'host-to-host' network where you had to know where each computer was and how it communicated in order to connect. A standard communication protocol was developed in the early to mid 1980s which dispensed with the need to know how a computer communicated and allowed the World Wide Web to emerge. As user interfaces became more intuitive and communication between computers became easier, more people wanted to use the service which in turn led to the adoption of a Domain Naming System (DNS) to allow a wider community to access this new tool.(Leiner et al., 2003)

The Internet today is viewed as an indispensable research tool used by all levels of education as well as for social contact and entertainment. With the ongoing development of technology it is no longer limited to a stationary computer, but may be accessed using a Personal Digital Assistant (PDA) define or phone.

## Social Trends

Scheiderman acknowledges the need to understand the physical, intellectual and practical differences between the various users (Shneiderman & Plaisant, 2004). This is highlighted by Gunn and Brummett (2004) when they discuss the melding and refocusing of cultures. Due to the global character of the Internet people have easier access to cultures other than their own; there is a view that new interpretations of the word culture are emerging which include popular and global.

McDowell poses the following question:

The declining cost of telecommunications and computer technology, new uses of computer-communication services by business and social groups, and the combined uses of broadcasting, computing, and communications services have allowed the development of social uses of communication that have distinctive spatial configurations. Do these computer-communication or network “communities” differ significantly from communities based on geographic proximity, shared values, or shared languages and conversations? (McDowell, 1997, p. 136)

According to Cappella (2002), just as genes contribute to evolution within the animal kingdom, memes contribute to social evolution. Humans are the only species who have the ability to imitate, and we make very good use of this ability: “Successful memes are precisely those replicated and retained as guides to future behavior” (p. 237).

New uses for the Internet have changed our social habits; children now play games in the privacy of their own home using the Internet instead of going outside to play, meetings take place in cyberspace and friendships are forged, sometimes over great distances.

There are not many areas where training is required which do not include the use of the Internet in some form or another, the way in which the Internet is used is changing at a rapid pace. These changes could be very useful in the work placement environment allowing placements further away from the training establishment, thus expanding the possible options. Communication may take on a number of forms varying from instantaneous chat to the exchange of documents.

## Communication

Work by Rheingold (2003) in the area of smart mobs, or the use of technology in social networks, emphasizes the trends towards using new technology for communication especially within the younger generation who make up a large part of our students. This group appears to respond well to the presentation of information in this modern interactive form. Consider how many young people you know who communicate using text messaging or chat rooms. New terminology has evolved, words such as cyberspace and to ‘google’ something as well as to ‘surf the net’.

Both society and technology are changing and their interrelationship leads to drastic evolution in the way technology is used to communicate. Csikszentmihalyi (1993) discusses types of personality and the ways society evolves by using memes which impact on this development. As members of the educational fraternity we need to be aware of these changes and adapt our presentation styles to make the best use of the tools and methods available.

One of the first applications written for this new environment was one which allowed messages to be passed over the network, the first mail program, now this method of maintaining contact with other people is more common than letters.

## Interfaces

The need for encompassing a huge range of academic disciplines when designing user interfaces is emphasized by Rogers, Sharp and Preece (2002) along with some of the problems encountered when attempting to combine this variety of disciplines due to the variability of focus each discipline has. However, if these problems are viewed as challenges, they could in effect enhance the final product and combine to give a useful and pleasant experience when interacting with the technology. This ties in with Shneiderman and Plaisant’s (2004) ideas: “Effective interfaces generate positive feelings of success, competence, mastery and clarity in the user community” (p. 10).

IT professionals have to be aware of the wishes of the people who are going to use the tools we create, as failure to investigate the wishes of the target users often lead to disappointment with the tools developed failing to meet the users expectations even after intensive training in the tool (Sahoo, 2005).

### Media

The Internet is often used by the media as an alternative tool to disseminate news or opinions along with print, television and radio. This allows interested parties to keep in touch in real time. Not all media coverage on the Internet may be accurate as there is no requirement for verification. Militant groups sometimes use the Internet as a vehicle for propaganda to promote their cause, or as a tool for blackmail, examples of this have been well publicized within Iraq recently.

Everland (2003) attempted to define certain attributes within media. The idea is that each media type is scored on a mixture of these attributes and can point to suitability of a particular mode of presentation.

During WWI and WWII news took weeks to filter through to the general public, and it was usually produced in print, or maybe the radio. Current wars are shown graphically using video footage nightly on the news, or screened as they happen on dedicated television channels and Internet sites. This means that the general public is far more aware and involved in these events, the commentary often influences their point of view, and media bias often contribute to public opinion. Governments are aware of this, and in some cases use it to their advantage.

Along with these changes comes the other use of media, that of advertising, this is used on some sites as a means of revenue similar to television advertising. Unsolicited emails are often compared to leaflets distributed to out letter boxes.

## Career Management

### Employee

Career management currently depends on individual knowledge, or the results of psychological testing similar to those outlined by Anastasi and Urbina (1997). When someone initially applies for a job, they usually fill in an application form, or send in a CV. This indicates to the prospective employer the skill of the applicant in each of these tasks, neither of which may be the most crucial skill necessary to do the job. What is required is alternative ways to allow applicants who may not be particularly skilled in these areas to get past the first screening by providing different ways of communicating, for example, speech or something which relies on interaction. The young people with whom we are most concerned tend to avoid static form filling in favor of the more 'exciting' game type interfaces which can be mimicked by such tools as 3D worlds. There is proof according to Csikszentmihalyi in his work on flow that as a species, humans are happier when they are completely absorbed in something. Csikszentmihalyi (1997) Modern technology using multiple stimuli means that this is more achievable for a greater number of people.

The familiarity with the Internet exhibited by students particularly within IT leads to a natural progression to using this medium to search for jobs. Topjobs (2003) state that 26% of all graduates prefer to look online, whereas Online Recruitment (2003) says 94% of respondents to their survey of graduates felt that Internet job sites were useful while others also used the Internet to search corporate sites for both job opportunities and details on firms. Miller (2000) cites a report from the Association of Graduate Recruiter (AGR) stating that nine out of 10 college leavers surf the net for their first job. This indicates that more employers are using the net to attract prospective employees. Although there are a number of web recruitment sites currently available they do not use the newer tools and technologies available such as 3D worlds even though some are starting to use some of the more interactive tools such as chat.

Prospective students could be better informed of the courses on offer, over a wider geographical area, hence giving them more choices. The development of online learning and virtual

classrooms allow a student to study at a distance at all levels, videos, voice, chat and 3D worlds add reality and can accommodate the various learning styles. This will allow a student the economy of living in their own locality possibly with family without having to compromise their choice of career, or the ability to gain the necessary qualifications to pursue that career.

### Employers

Employers are no longer restricted to the prospective employees within their local geographical area. The Internet allows their search to widen to other districts and countries. The options for selecting suitable employees are varied, often prospective employees spend hours, maybe even days sitting tests and interacting with current employees. Phone interviews used to be the main option for distant applicants to allow the two sides to discuss crucial aspects of the job, another alternative is video conferencing so that each side could see the other. Technology has progressed to the point where a combination of the tools available could enhance this experience by the use of voice, video and online interaction.

Smith (2000) reports that one employer which she interviewed indicated that in their opinion IT employees need to possess not only the general IT skills which are currently required for the job, but the ability to acquire the wider higher level skill essential to cope with the convergence of information and communication technologies. This indicates that the ability to evolve is important especially within the IT industry, although a lot of other industries are using new technology which is constantly changing.

### Conclusion

The Internet has drastically changed the way we communicate, whether this is a positive or negative change is dependant on the view and experiences of the individual. Together with other technological media such as television, telephone and the radio it has meant access to an enormous amount of up to date information. The information provided may not always be accurate, which means that to use the Internet effectively the sites must be chosen with care.

The use of the Internet could enable students to complete any work placement closer to home, thus minimizing cost for them and enabling them to follow careers, and enroll in courses which were previously an unviable proposition.

The onset of online databases for journals and books make searching for data easier and faster, and gives a wider range of options. A search engine is often used instead of a librarian to select the appropriate texts, which are then downloaded, making citing easier. The skills necessary to use these tools are taught in schools together with the manual methods of searching a library.

The technology has enabled people to socialize in private using chat rooms, text messaging and the telephone; this removes the need for face to face contact, so the face you present to the digital world could be totally different from reality. This often proves to be a problem as in chat rooms where stalkers hide, and on-line dating, but could also remove some of the hurdles which come from insecurity, or where there is some form of disability.

In his book Rheingold (2003) discusses how the modern generation use text messaging to arrange meetings, thus allowing a change of venue or plan at any time, as the participants are always in touch. Mobile phones now have the ability to 'surf the net' take photographs and movies.

The Internet has also enabled the spread of propaganda and viruses, neither of which are particularly useful, but as with most beneficial inventions, there is an alternative, destructive side. If we are going to use this medium, then we have to filter out the propaganda and protect against the viruses.

Although the Internet is used productively in the area of career management, with some sites including some of the more modern tools such as chat and video conferencing, I still feel that it is possible to reach a wider audience if some of the visual and audio tools which are currently under development were incorporated. These would need to be used appropriately, and could give both

sides of the employee/employer connection a better understanding of the requirements and availability of careers.

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