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By

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Abstract

The Information Superhighway, known today as the Internet will open up new channels of communication between individuals of every nationality, culture and religion. The impact of these changes will be manifold, and not all the changes will be welcomed by the relevant authorities. However, the greatest and most immediate impact will be on business culture, as the interlinking of business communications leads inevitably to the shrinking of the business world into a truly global village. Businesses small and large alike will thrive on the new international markets created by the widespread adoption of Internetworking technologies both in the region and in the world.

The Information Superhighway of the present is the Internet. With over twenty five million users in over one hundred and fifty countries, it easily qualifies as the Global Information Infrastructure of today. With growth rates of information services rooted in the Internet exceeding ____ per month, it will probably continue to become the Global Information Infrastructure of tomorrow.

People who have been involved in the Internet since its inception are often amazed at the rate at which the number of Internet users has grown over the last two years. This is not all that surprising when you consider that it has taken twenty five years for the Internet to get to where it is, and if you track the improvements in services over the past twenty five years, all the progress seems quite incremental, and so it is taken for granted.

To the novice Internet user who has not seen the incremental changes over the years, the thrill of suddenly being able to browse and discover an almost inexhaustible source of new facts or points of view is quite mind boggling. Add to that the sheer excitement of being able to communicate and interact directly with anyone via electronic mail at costs that are typically a fraction of the postal charges, but at speeds that equal or exceed that of a facsimile transmission, and we begin to see why the Internet has become so attractive to people from all walks of life.

Such growth does not come about without causing some change in the behaviours of people who work and do business on it. Some people have even compared the advent of cost-effective Internet service to the invention of the printing press in terms of its potential impact on society. As is the case with such changes, the impact is far reaching, and this paper attempts to explore the impact of the widespread availability of the Information Superhighway in this region.

Education and Research

In spite of the changing face of the Internet — over seventy percent of the communications traffic being originated by commercial rather than educational sources — it is in education and research that the benefits are clearest. The introduction of Internet services into school and universities allows students and teachers alike to explore a veritable universe of information at their fingertips. Online today, one can find all kinds of educational resources ranging from the Smithsonian Museum of Natural History to the entire catalog of the Library of Congress to collections of academic dissertations at individual universities.

Add to this incredible set of resources the prospect of two-way communication and being able to share computer resources across the Internet, and it makes it feasible to even complete a doctoral thesis half way across the world from ones research advisor. But these resources are not limited to just university level work. With an increasing number of primary and secondary schools being linked up the Internet, there is an amazing amount K-12 material being made freely available online. One example of

such efforts in the K-12 arena is the Global Schoolhouse project, an ambitious effort funded by the National Science Foundation that aimed amongst other things to demonstrate how people and information resources on the Internet can be used as a classroom tool for research and as a medium for interactive collaborative learning.

Two way communication : a two edged sword

With the Internet becoming increasingly attractive to consumers, it is natural to see businesses flock towards the Internet as an alternative media by which to communicate with their customers. While 25 million affluent consumers are by themselves an attractive target market for businesses, it is by no means a compelling argument for businesses to exploit the Internet as a market. After all, many of the 25 million are likely to be students, and of the remaining adults with a significant disposable income, the heterogeneity of the community makes it unclear as to what goods and services will ultimately be transacted online.

The main difference between the Internet and traditional media is that the Internet is a two-way communication medium that allows consumers to “talk back”, and even “talk to each other”. This means that it is increasingly difficult for corporations to manage public relations. A by now classic case of how not to manage public relations on the Internet is the Intel Pentium fiasco. Intel claimed in this case that the errors in the Pentium chip would not be significant to most of its customers. Its customers of course felt otherwise, and more importantly, told other customers that they didn’t believe Intel. This forced Intel to retract its initial position and promise to replace every faulty Pentium processor on the market at great cost. The implication here is that it will no longer be possible to control the dissemination of negative information, and that each consumer will have to be treated as though he were a member of the press.

One response to this new medium might be for corporations to withdraw from the Internet much as a turtle might withdraw into its shell when poked with a stick. Unfortunately, on the Internet, such a non-response may well diminish a company’s standing in the community. Probably the most desirable response to the challenge of a two way communication medium is to take it as an opportunity to be able to reach out and find out exactly what the consumer wants from the corporation. This goes far beyond market research in its traditional sense and needs to be looked upon as a real opportunity to treat customers as partners with which a meaningful two-way communication channel can be established.

Implications for Business in general

One major implication of cost effective bi-directional communication for business is that it becomes possible to operate a small business that is also a global business. The reason that small businesses have remained small is that the number of people that know about the business tends to be centered in the community which it is located. With the Internet, however, it becomes possible for the smallest business to operate as though it had branches in every major city in the world. Of course, not all goods and services can be transacted over the Internet in the near future. In particular with

individual consumers, there will remain the element of goodwill and trust that may not be all that easy to achieve online without direct personal contact.

However, for business to business communication and transactions, it does not differ significantly in terms of degree of personal contact from the way international business is conducted in the present day with the telephone and facsimile. The only major difference lies in the quality of the information that can be exchanged. Unlike facsimile, where the low resolution of 200 black or white dots per inch means that text is barely readable and images almost impossible to make out. At a minimum, Internet based data exchange gives everyone the ability to send documents across the world to a high quality laser printer as though it were just across the room. Of course, complex graphical images such as Computer Aided Design (CAD) files, or even weather satellite images can be sent across in a similarly convenient manner.

This means that with the Internet, it is possible for corporations large and small alike to engage in Electronic Data Interchange (EDI). EDI used to mean dedicated leased lines and expensive terminal equipment, and was previously the province of only the largest corporations (and even then only within corporation boundaries). Internet based EDI is much more cost effective, and will likely appeal to all types of industries. EDI over the Internet will mean that it becomes possible for a New York based corporation to easily interchange and comment on pre-production prototypes by exchanging the design files with its supply partners and customers the world over, without requiring every partner or customer to adopt an identical proprietary setup.

But the Internet can be used for more than just traditional EDI. It can also be used to promote a product, service, or even just a particular point of view. The most obvious use here is to use the Internet as a marketing medium. In this application, there are two marketing objectives that a business can realize by using the Internet. The first is global outreach — using the Internet, businesses can potentially reach out to people in over a hundred and fifty countries at a fraction of the cost it would take to do a mass mailing of equivalent outreach. The second is niche marketing — because Internet based advertising is interactive, it can be made so focused that it can be customized down to the level of the individual consumer, at a fraction of the cost it takes for a sales representative to make a call. Moving the power of such communication into potentially the hands of every individual or business will of course have some adverse impact on the industries that have grown out of the inefficiencies of previous modes of communication.

Implication for the Information Industries

There are three broad groupings of information industries that may be adversely affected by the move towards popularization of the Internet. These are the news industry, the publishing industry and the advertising industry. This is because the Internet has similarities in capabilities to traditional media such as print, radio and television, but the melding of these capabilities leads to new ways of usage that will not be so familiar. The primary change will be the inclusion of interactivity in communication.

Advertising agencies and Public Relations firms the world over will have to find some way to accommodate the demand for these new interactive services, or risk the ceding of this new territory to pioneers crossing over from the computer industry. Large publishing companies too will find that the stranglehold they have had over authors will weaken as individual authors who are technically inclined may elect to migrate over to the Internet. International newswire services will also find that with the growing popularity of the Internet, on the scene reports by individuals with a reasonable facility with language can easily provide reports with the same quality and timeliness directly to interested consumers. Thus their value added will be likely to move away from timeliness and more to the quality of the analysis of the news.

Companies in the information industries that recognize the impact of the structural changes brought about by the growing popularity of the Internet will profit best from it because they will be able to change the way they add value to the process of communication further away from being efficient middlemen.

Implications on Heritage and Culture

The implication on heritage and culture are two-fold. On the one hand, it is yet another channel by which western culture enters the country. Moreover, the ease by which such undesirable content as pornography or politically disruptive literature can be disseminated over the same channels is disturbing. On the other hand, given the low cost structure of operating an Internet service, it is also a way by which local culture and points of view can be shared. Unlike traditional forms of communication like newspapers, radio or television broadcasting, in this new medium called the Internet, developing countries do not have to take a back seat to the developed nations.

As such, we have seen a number of “cultural servers” spring forth spontaneously all over the world, all with the common aim of promoting their cultural heritage. Often, these activities are not initiated nor sanctioned by the respective governments but represent individual efforts by university students studying far from their native countries. What is amazing is that these individual efforts can be as impressive as those initiated by the bureaucracies. This is a revolution in electronic dissemination akin to what desktop publishing did for newsletters and brochures. Over time, it is conceivable that increases in telecommunications line speeds and improvements in the quality of desktop video production may bring the equivalent of cable casting to the individual business or consumer.

There are differing views on the implications of these developments. One is that increasing ease for the individual or a small group of people to disseminate its views it will lead to increasing cultural fragmentation — that subcultures that were agglomerated into seemingly homogenous cultures will reassert themselves as being separate cultures. The other view is that it will lead to the formation of a global society that becomes the melting pot of the world’s cultures, much as major cosmopolitan cities of the world such as New York or London. The reality will probably depend on how closely an electronic, or virtual community resembles a real one.

Conclusion

All in all, it is clear that the continued growth of the Internet will have an impact on the world in general. We can expect that the impact of these changes to be wide ranging, and perhaps not entirely welcomed in areas where cultural sensitivities may be offended. In areas such as education and business, the impact is likely to be quite positive. In particular, in the case of business exploitation of the Internet, the low cost, high quality worldwide communication of information facilitated by the rapid growth of the Internet affords businesses that exploit its power a significant edge over other businesses. In a global village where a competing business halfway around the world is as readily reachable by your customers as you are, the trend towards using the Internet is not easily ignored.