"I heard on TV that everyone is getting rich on the Internet. Is this little slot where the money comes out?"

ICTs hold out the promise of, amongst other things, either: wealth, freedom and liberation from drudgery, or, social and economic control and oppression on a massive scale. Discuss these possibilities with particular reference to the Internet.

The emergence of the Internet has been acclaimed to alter every aspect of our lives, but as Loader asks, it is likely to lead to a greater equalisation of power or will it just widen the digital divide further? (Loader, 1998)

The only users of the early Internet were computer experts, engineers, and scientists; there was nothing friendly about it. There were no home or office personal computers at that time, and anyone who used it, whether a computer professional, an engineer or scientist, had to learn to use a very complex system with complicated commands. However, with the advent of the graphical browser and more affordable desktop computers in t he early 1990s, it soon became clear to both commercial and government organisations that this was a medium that had the potential to become one of the biggest technological developments of our time.

The mid to late 1990s saw share prices of dot.com co mpanies "shoot through the roof" and the media reported each development of the new technology with increasing hype. If you weren't on the information superhighway, then you were definitely off it and likely to be left far behind.

The sky-high valuations of many dot.coms stocks reflected the belief that Internet companies could revolutionise ways of doing business. If the company built a website, the customers would come with little need for further intervention. The falling stock prices now reflect the recognition that the net is not a passport to success. Dot.coms are just like any business and need customers and cash flow to stay afloat.

The initiative is now swinging back to the traditional, already established companies who are only now establishin g a web presence. They are doing well because people have already heard of them and they aren't having to spend millions getting their name in front of potential customers.

Individualisation of choice allows providers of services, equipped with data on consumer behaviour, possibly even on the specific user, to target their products to the different sectors. As well as reaching a wide range of people, the use of databases and profiles allows for the increasing segmentation and targeting of specific audienc es. This highly personalised marketing approach means, in theory at least, targeting the specific customer with products he will need/want, in turn increasing sales with very few advertising costs.

Many information society enthusiasts claim that the use o f ICTs and the Internet in particular will lessen the drudgery in people's everyday lives and give them greater access to information.

Daniel Bell suggested

> "*as the industrial society succeeded in meeting peoples material needs, so the information soc iety would fulfil their need for education, entertainment and personal development. (*Wyatt et al 2000 p13)

Others advocate that ICTs make social inequality worse by polarising the labour force, enable greater control through surveillance and divide societ y into information haves and have -nots. *(*Wyatt et al 2000*)*

The UK government has taken on board the idea of taking full advantage of the opportunities afforded by the new technologies. Prime Minister Tony Blair recently promised that everyone would have access to the Internet by 2005. However, open access to the Internet by itself is not enough to enable people to become members of the online community.

Carter (in Loader) puts forward the optimistic view where the information superhighway will support new services that will empower citizens and provide access for the "full participation in an emerging digital democracy. However he goes on to say

> "*if citizens are not able to have access to the new services, the outcome will simply reinforce the existi ng patterns of inequalities with information haves and have -nots in our communities*". (Carter in Loader, B 1997 p137)

Woolgar (2000) suggests Government and local authorities are wrong to think that improved access to the web for those who cannot afford to surf from home will end social exclusion, He quotes research showing that internet - connected kiosks put in libraries and shopping centres to get beginners using the web were being used more by those already online. The people who could benefit most from access to online information about education and government services were not using the terminals. "Access does not generate use" (Ibid). Rockoff also raises this point, suggesting " *just giving someone time at a terminal with Internet capability will not b enefit anyone who feels confronted with a seemingly insurmountable problem* " (Rockoff in Loader 1998, p66). People need to have instruction and tuition in order to gain confidence to use the Internet. Without this, merely creating access is fruitless. While the Internet has the power to connect people in unprecedented ways, those who are not able to use it are likely to become further excluded and alienated.

Unfortunately access and affordability is not equal across all sections of society. The skilled and the educated are likely to have privileged access to the Internet and the information held on it. New t echnology generally doesn't favour the poor and uneducated. It tends to favour the wealthy, or in the case of the Internet, the people who have the req uired knowledge to use it. We can see that the Internet, in many ways, is making the gap between the information rich and the information poor wider.

A survey undertaken by the Government's National Statistics Office in September 2001 (www.statistics.gov.uk) showed that 49% of the population of the United Kingdom had never accessed the Internet and of that group 16% felt this was due to lack of confidence or skills in using it. 26% of the people who had never used the Internet had not done so because they had no means of access.

Net knowledge can itself form social exclusion and isolation. Those who cannot develop the skills necessary, or follow the language and conventions associated with it may become exclude d. Poor literacy skills also exclude those in deprived sections of society and parts of the world (e.g., the third world). Fjprtoft quotes a figure of 880 million people in the developing countries who can neither read nor write, and well over 200 million in the industrial world who have very poor literacy skills (Fjprtoft in Leer 1999). Not all people or groups in society have the resources, expertise or time. or the combination of these, to get connected

Globally, the differences in accessing informatio n on the Internet are becoming clear. Thomas & Wyatt cite the United States as having less than 5% of the world's population but over 25% of the world's Internet users. Compared with this South Asia had over 20% of the population with less than 1% of the Internet users. (Wyatt et al, 2000)

The European Commissioner, Martin Bangemann, stated in 1994

> "*the first countries to enter the information society will reap the greatest rewards. ……. By contrast countries which favour half hearted solutions face, in less than a decade, disastrous declines".*
> (Bangemann in Loader 1998 p4)

This would seem to discount somewhat the enormous differences in access to telephone services experienced by countries across the world. Holderness points out that new technology of the World Wide Web places enormous demand on communication links. The nature of the Internet means that users require immediate attention so if a potential buyer visits two websites, one in India which takes several hours for a response, and one in the U nited States, which takes seconds, it is easy to see how disadvantaged those with poor communication links will be. (Holderness in Loader, 1998)

Governments across the world are considering ways in which the Internet can be used to increase political part icipation by means of virtual voting and "direct" consultation and input. In view of the unequal access already mentioned this may have the effect of privileging certain social groups more likely to be connected, typically the middle class and well educate d. The new technologies may give power to those with the most influence or voice in the first place, such that they heighten social differences further than they already are.

Individuals cannot successfully participate in the democratic process if they do not have equal and unrestricted access to the main methods of communication, so as increasing parts of the population become connected to the network, for those left unconnected the fear is that unless government actions are taken to include the poor an d "techno-illiterate", their lack of connectivity will mean their voices are not heard. As Webster states

> "*reliable and adequate information will facilitate sound discussion while poor information… almost inevitably results in prejudicial decisions and inept debate*" (Webster, 1995 p 105)

In Habermas's conception of the public sphere, a democratic public sphere means that there must be opportunities for inferior groups to persuade dominant groups that their anxieties are genuine and worthy of debate (Fraser in Calhoun, 1993 p129). The Internet presents an opportunity to expand the points of view available, and the topics - but a dominant group can be seen to have already surfaced. Internet users are predominantly male, white, English speaking, well-off in their 30s. Research reveals that Internet use tends to be concentrated in males from 15 to 35. Women, ethnic minorities, the poor and uneducated tend to be relatively excluded, reinforcing patterns of social exclusion in the broader society (Wyatt et al., 2 000)

However, one belief is that some of the gaps especially those of income and educational level will diminish over time, in addition to which, the split of income and educational level are only imitating existing divisions in society. It may be said that existing digital divides are playing a part in shaping the future design of the Internet, where future resources and opportunities will then favour particular groups in society. This tendency favours the dominant groups in society, excluding all those w ho do not belong to this "e -elite" (Castells, 1996)

Governments in the developing countries are now realising that they cannot afford to ignore the necessity of connecting its organizations and science and education communities. New technologies have cut t he cost of processing, storing and moving information. They give poorer countries the possibility of leapfrogging some of the traditional barriers to development, by linking them into the global economy and improving their access to.

The development of t he Internet can be seen to provide many new freedoms to those fortunate enough to have access. One of the unique things about the Internet being its ability to transcend national boundaries, allowing people under repressive regimes to access information t hat was previously centrally controlled through state media. This has not stopped some governments trying to apply control however. China has made it a crime to download or distribute any information on the net that it considers critical or subversive and Internet users in China are required by law to register with the police. However, Chinese authorities are facing a dilemma, while realising that new information technology is key to China's economic future, they are fearful that unmonitored information co uld threaten communist control.

Many governments take the view that it is very difficult to control the nature of the net and that to do so raises issues of rights to freedom of speech as well as hampering economic possibilities.

One of the merits of the Internet is that this domain gives people the freedom to seek the social contacts that fulfil their needs and preferences, rather than these being determined by locality or culture. Traditionally we have been restricted to the social networks in which we are physically located such as the family and the local community (Slevin, 2000).

The new communications technologies permit us to go beyond these limitations of space and therefore adapt our social networks in a similar way to the way we choose our leisure activities. We are now able to choose the people we want to chat to and socialise with, be it in the same town or halfway across the world. However, Calcutt raises the issue that because in cyberspace it's now possible to shut someone off with the click of a mouse and go elsewhere, one now doesn't need to feel responsibility or worry about other people. (Calcutt, 1999). The Internet, he goes on to suggest, allows its dominant users, the middle classes, to keep in touch with carefully screened people of similar groups, making the community and alienation at once mutually dependent. (Calcutt, 1999).

> "*The Internet is unlike anything we have seen before. It's a socially connecting device that's socially isolating at the same time* "
> (Greenfield, 2000).

It is a paradox of the internet that it can be both socially excluding, yet at the same time can form a basis of social inclusion for people who have previously been isolated. It may provide a medium for the elderly whom for reasons of mobility and perhaps expense might find it difficult to maintain social contacts or develop new social relationships. Evidence from Age Concern in the UK (www.ageconcern.org.uk) suggests that the elderly are increasingly getting on-line and are not necessarily being left behind by this technology, quoting 1 in 5 elderly people connected in the UK. They have the time to learn the skill and log on regularly, and can generally afford to use it.

For users with physical disabilities the Internet whilst being physically available may remain physically inaccessible. In everyday life, problems of legibility for visually impaired readers led to the design of large -print texts and audio books. Equivalent measures are not yet widespread on the Net, even though the glare of the screen and the distraction caused by animated advertisements often make reading more difficult than does a traditional book. Specially developed software reads one line of a Web site at a time and works best with only one hyperlink per line. Since the result is long pages that are a nuisance for sighted readers, Web designers do not always incorporate this into their pages

Access to as well as ability to use the Net means access to a wealth of information and the ability to learn and experience new things.

What was once too expensive, too time -consuming (shopping), or too far - fetched (journeying into space), is now available from the user's living room, thus potentially making life a little bit easier, a little more convenie nt, and sometimes a lot more fun. However, an online survey carried out by www.bags123.com [1] found that while 7% of women prefer online shopping to buying things at the shops and 38% of men prefer shopping at the cl ick of a mouse, the majority still enjoy the act of going out to the shops even though they had the choice.

Users have the ability to be or become someone who they are not or cannot be in day-to-day life. For a shy or unconfident person, chatrooms and newsgroups permit users anonymity or possibly an altered identity. Experiences such as these, which can represent freedom and adventure for some users, do not exist in the real world.

Although anonymity is one of the advantages of the net, this can have it s drawbacks providing those with criminal motives to achieve their goals.

There is some concern that the Internet may in some instances lead to dependence, similar to other forms of addiction. It may worsen addictions that also occur in the offline world but where in the real world there is less chance to satisfy this, such as pornography. There is discussion about whether "addicts" are drawn to the Internet. Equally, even if people with low self esteem and communication problems tend to use the Internet, it is not clear whether the Internet actually worsens their problems, or provides a medium of communication and a social situation that these people would otherwise miss out on. .

Despite the protection of anonymity, the net is often very gendered and not always a friendly place for women. Women are often harassed and intimidated from posting and participating on conferences or via e -mail. Gender is one of the first means by which persons introduce and represent themselves to others in electronic commun ications

We can connect in fairly intimate communications with strangers from the privacy of our homes. Highly personal information is displayed for all to see on self-made homepages. CV's are put into databanks on the Internet where companies can have fre e access to them, and private emails can be relatively easily traced and opened by hackers. This may lead to new conceptions of what exactly private means in the information age.

We are also likely to be "forced" to place trust in others for the transactio ns we conduct over the Internet. The replacement in the provision of services with automatic ones provides the ability for greater anonymity and discretion. However, they may also reduce accountability and require greater trust as a result. This therefore makes us more dependent on technology, and requires that we defer aspects of control to others.

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[1] http://www.ananova.com/news/story/sm_423284.html

One way in which the Internet can be seen to be changing our employment patterns is by reducing the importance of distance considerations. In many industries, the geographic distribution of work is changing considerably.

Restrictions of local markets for employees can be limited by employing workers from other nations where the wages are much lower but who can work from their own locality. Such arrangements can take advantage of the time differences so that projects can be worked on around the clock. As Fjprtoft suggests, computer operators in India and other less developed countries are able to show that they are as good as, if not better, than those in industrialised countries. (Fjprtoft in Leer 1999). Today some people telecommute over the Internet, allowing them to choose where to live based on quality of life, not nearness to work. Telecommuting will enable not only shifts of hundreds or thousands of mil es, but also shifts of only a few miles within cities.

Information technology could also create employment opportunities for people in the inner city who may lack adequate means of transportation to the outlying areas where new jobs are being created.

One way that the net may contribute to equality is by helping to challenge the hierarchies of expertise and power/knowledge that are typical of institutions such as medical and legal services. It not only provides access to expert knowledge and self-help beyond one's doctor or solicitor, it also combines expert knowledge with lay knowledge and the shared experience of others on the net. People who consult medical expertise on the web may feel better able to evaluate and challenge the professional's "expertise ". The Internet has been used for on-line help of people without the need to leave the home and also opened up new possibilities for self -help for those seeking information relating to problems

The possibilities for surveillance provided by traceability o f email and surveillance CCTV and webcams mean that the information age could also be seen as the surveillance society. It is very difficult not to leave any traces of our presence as we go about our business in using computerised information. This can be a boon for crime detection. However, these same possibilities also mean intrusion into civil liberties and the rights to privacy. Employers are now able to use webcams to "keep an eye" on their employees at all times of the day, possibly without the employ ee being aware they are being watched. Some commentators have suggested this reflects a new degree of "panoptic" power over the citizen.

The "panopticon" was a penal institution designed as a surveillance device developed by Jeremy Bentham in the 19th ce ntury that has served as a symbol for aspects of the information age. (Spears & Lea 1994) Protection of peoples' rights is becoming a major concern in that the changes of the information society are such that legislation is hardly keeping pace with these technological changes.

There are also the concerns about the huge wealth of data accumulated by both companies and government organisations on individuals and the uses and possibilities to which this information can be put.

In addition to supplementing existing "real world" activities, the new technologies can actually stimulate more of them.

For example, teleworkers often end up travelling more than their non computer connected colleagues; that Internet versions of virtual museums are likely to generate more visitors to the actual museums and more generally, electronic communications have been seen to have stimulated greater world wide travel.

Woolgar suggests "*technologies that build on existing social arrangements are likely to be more successful and the globalising tendencies of the Internet require the co-operation of the local context in order to thrive*" (Woolgar, 2000). He suggests the ICTs do not generally replace or threaten either existing technologies of communication, or the social relations in which these are rooted. Rather social factors and earlier forms of technology shape their use. ICTs can even reinforce pre-existing social relationships and inequalities, technologies tending to support and supplement the real world activities rather than replace them.

He goes on to say

> "*It (the internet) will change our lives but not half as significantly as we thought ….It is not going to substantially change the lives of the great mass of the population." (*Woolgar 2000)

Toffler in Leer takes the opposing view that the global revolution indirectly and directly has altered and is still altering the structure of all societies on every level. A new way of life has materialized that is highly technological but has more in common with some pre-industrial social forms that with industrial life. He gives the example of the fact that religion has come to play such an important part of life, particularly with respect to modern day conflicts. (Toffler in Leer 1999)

Toffler goes on to suggest that

> "*the emerging world with its new geo-political relationships, new lifestyles and modes of communication demands a complete re-think of society from top to bottom*" (Ibid pg 22)

There is enormous speculation about the way that information and communication technologies (ICTs) are influencing our lives, its social structures and economies, as well as individual awareness. As with any new technology, the debate is often pessimistic and reactionary.

The view that the communication technologies we use affect how and what we communicate, when we communicate, rather than serving simply as a new means for us to communicate the same content in the same way is a technological determinist viewpoint and is one which Postman (1997) adopts. According to him we now live in what he calls a "technopoly". This, he says characterises a society in which the old symbols and icons of the non - technological world have been rendered irrelevant by the overwhelming power and force of a technological world, a society which gives in to the superi ority of technological development and innovation.

A less strongly deterministic stand adopted by some commentators is rather that the technologies we use make possible new forms of communication, offer possibilities that we may or may not develop but we are not forced to allow the technologies to develop in any pre -determined way.

In conclusion, it can be seen that the Internet is still in its infancy as regards its development. The developments that unfold each day can be both exciting and disorienting, affording both opportunity and risk. The Internet is making life more convenient and enjoyable, and for some healthier, wealthier and wiser. It is also affecting work, family, and the economy in ways that were never considered at its origin, introducing n ew forms of tension and distraction, and posing new threats to the structure of our physical communities.

Neil Postman writes that technological change is always a Faustian bargain, being both beneficial at the same time as being detrimental (Postman in Ermann 1997). To the large-scale organisations such as banks and airlines, the Internet is now indispensable. To the individual however, Postman suggests, although they can now shop at home, bank at home and get all the information they wish from home, they have had their personal data made more accessible by powerful institutions, have become easily tracked and made easy targets for advertising agencies with never -ending junk mail.

There is no doubt that for those fortunate to have access to the Int ernet, the world has now become a much smaller place. We can foresee mixed blessings from today's emerging technologies, and perhaps should be alert for unexpected consequences that must be addressed by thoughtful design and appropriate use.

Perhaps instead of being either a technophile or a technophobe, we should try to develop the middle ground between techno -utopianism and neo- Luddism.

> *"the web is information at your fingertips, but its also information overload….it's spending an hour getting in formation that you could have gotten on the phone in no time at all. The web has proven invaluable when seeking medical information but it's also meant yet more junk mail, cyberscams and porn…… it's busy signals and servers down and aggravations of pages that take too long to download. We as a society were already feeling overworked when along came the web, yet another breakthrough that makes life feel more like a perpetual run on a treadmill. Why is it that every invention from the microwave to the fax makes our lives more hectic rather than less?"*
> *(Rivlin in Wurman 2001 p13)*

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