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Essay:

The Information Society: advantages and disadvantages

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Summary

Today, information society has transformed various facets of our life such as the fields of business, education and communication just to mention but a few. The impacts of information society are profound. There are numerous books and articles that have been written on this subject; through the available literature, we have been able to understand different theories, and see the general publics increasing reliance on the information society. In addition, distinguish between the resulting benefits and the pitfalls that affect us all. The available literature has been crucial for this paper which sheds light on the advantages and disadvantages of information society, with a careful analysis of each sector's (business, education etc) pros and cons. In conclusion the paper indicates, there are greater benefits through information society rather than drawbacks to individuals and society alike.

Introduction

Do societal demands give rise to the technological advances? Or is the increasing technology available, shaping society? Whichever way you choose to perceive it, in a time where everything around us is rapidly changing, the modern man, both as a creator and consumer of new technological and communicational applications is faced with great challenges to adapt to the rising society. The Information Society (IS)

One cannot ascertain for sure the beginnings of the information society, though it is thought to have its origins in Japan in 1964 (Duff, 1996 p.119). Masuda one of the founders came to the realisation that *the making of information values became the formative force for the development of society* (Martin, 1995 p.2) "What is this information society anyway and how does it affect us, if at all? There are varying definitions of what Information society is, but we can briefly define it as *"A society characterised by a high level of information intensity in the everyday of most of its citizens, in most organizations and workplaces; by the use of common or compatible technology for a wide range of personal, social, educational, and business activities and by the ability to transmit and receive digital data rapidly between places irrespective of distance"*, (Aberystwyth module "the Net result 1" Unit 4)
Faced with this reality, a lot of people throughout the world are deeply troubled concerning the influence that these changes might have in their lives, in their children's lives as well as other people.

New technological developments, coupled with other factors, have and will continue to change our existence positively and negatively. The IS will not form one unified social model. "*The claim that what the steam engine did for industrial revolution is what the computers will do for information society has been a widely used analogy.* (Lyon, 1995 p.67) Today, in the business, health and the education sectors, there are new directions as to how things are done and carried out, to match up with the innovations of the IS.

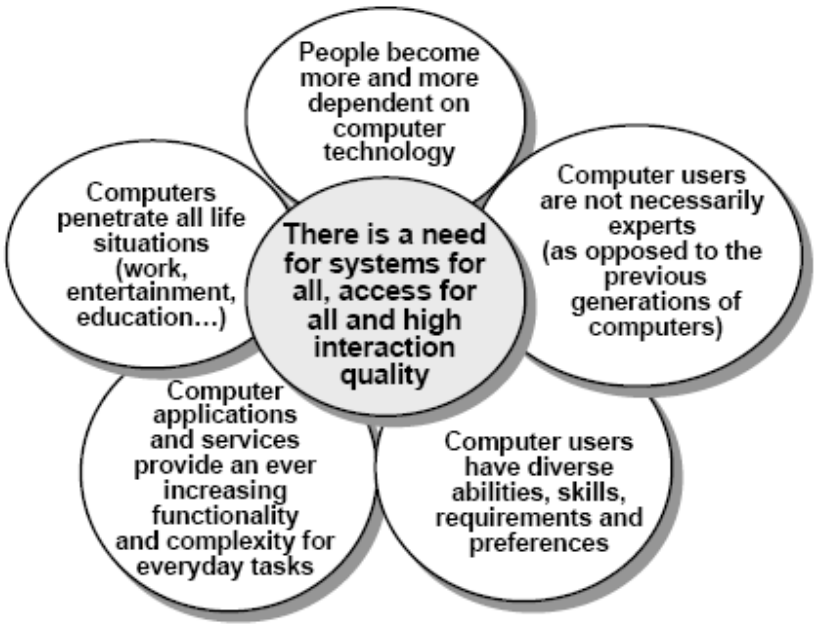

Figure 1: Critical trends towards the emergence of an Information Society

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"The Information revolution involves substantial change in how people live and work, in how business is conducted and governance performed ultimately affecting much of society" (Hundley p.56)

The advantages and disadvantages of the Information Society

The information society is set to revolutionize the way we accomplish most tasks. "*Although information seeking is innate to human beings, never before have we been called upon to manage so much stored information"* (Large, 1999 p.28) This might bring fear and anxiety to most people, as individuals will generally fear what they do not know and might be sceptical towards this new information ideology, it is however important to determine the necessity of such a change. As *David Edge* puts it, he states that "*the relationship between technology and society is genuinely an interaction recursive process"*. It is therefore crucial, to see in what ways the information society will affect us. This paper will look at the advantages and disadvantages of the IS.

Advantages

Social implications

According to Frank Webster"*Information society while it does draw on economics and sociology has at its core the geographer's distinctive stress on space"* Society has always been drawn towards different sources of information; getting to this information has sometimes proved to be a daunting task, as there have been time and space obstacles. That resulted into high costs of transportation and a backlog of procedures. Presently, with the highly networked system, one need not leave the comfort of their home. Information travels through networks linking people together, from a stable geographical location through their computers. The same is applied to merchandise, consuming goods, studies, training, work, even entertainment.

"The world is increasingly a vast electronic entrepot, where broadband communications and optical technology hold the key to economic growth trade and development" (Martin p. 33)

For example, a library can now open its gates to the whole world. A university or a research institute can convey their knowledge, their researches as well as their case studies to anyone who is interested, regardless of their geographical location.

It is quite evident, that electronic networks are partly substituting, air and naval roads and are altering the way in which, avenues of information reach every single household. *"We can now travel with minimal delay to an information source (documentary, digital, or personal) whether it be the other side of town or the other side of the world"* (Large, 1999 p.28). Facilitating a growth in information sharing, consequently reducing the time and cost of access, in addition, providing great benefits to the environment by the radical reduction of paper consumption. The IS will greatly be sought after in the near future, as people are experiencing the benefits of it today through a series of its applications. Using the email was only the beginning. Surfing on the internet takes us one step closer. If, on the other hand, we work and train and communicate through the networks, then we have already become members of the IS.

Disadvantages

Social implications

In today's IS, man is more informed than ever before as he is given the opportunity to access innumerable amounts of data. Within a few minutes, he has knowledge of wars that break out and may destabilize global order; they can watch the destructive results of a natural phenomenon through their televisions and generally be highly informed about various aspect of life. The massive amounts of information that surround us daily, hold us superficially and not substantially aware of reality. We somehow become distant to what is going on as we feel it is not near us, and in essence, it does not really affect us. Some may even develop insensitivity towards what they see, as they may tend to feel that the disasters or tragedies are around everywhere and learn to have a mental block to them, not to be affected by them in any way.

The protection of our privacy is another extremely important issue that needs to be considered. Through the Information Society, an overload of negative data, can turn into a destructive social factor if it is uncontrollably used. The dispersion of illegal and harmful content in various networks, child prostitution, electronic fraud as well as other similar delinquent activities, have been transferred from the streets to our computer screens. Unfortunately, people appear to be unable to harness the new upcoming digital destruction, since their countermeasures seem insufficient. *"As more networks come online, transaction generated information about individual citizens can be mixed and matched …… digital data is unregulated"* (Martin p. 110)

As it has already been discussed, through information society today, data travels instead of people for this reason, the security of information is particularly vital, what is of great concern to most, is the validity of information. Hackers have already made their presence noticeable, either by altering the data circulated or by filching information and breaching security. "*In an era of information explosion everyone wishes to receive authentic information through secure and reliable infrastructure while avoiding infringement upon*

other's privacy" (Inose, 1995). Integrity of information, if not secured properly, will seriously undermine the benefits of the IS.

Business and Work

The transformations that will take place in the working and social environments through information society, might positively influence the procedures of development and upgrade all sectors of human activities. On the other hand, it may undermine the knowledge and skills of individuals and groups this new working and social environment in IS introduces us to a different way of thinking and acting. However, not all these changes will be positive certain negative factors may arise both from the working environment as well as other areas

Business and Work

Advantages

Education which is usually considered to be one of the most necessary prerequisites for life has helped individuals to constantly adjust to the dynamism and changes that take place both in the working as well as the social environment with the introduction of the information society. The transformation of the work institutions to learning organisations constitutes the first and most important step. It is apparent, that such a procedure does not only help the worker to synchronize developments, but it also enhances the flexibility of work procedures something that the company needs and requires for survival.

The existence of knowledge based society, would encompass an introduction of new applications which would have some unquestionable advantages such as the increase in production, cost reduction on manufacturing commodities as well as new competitive products and services. For example a study done by *Brynjolfsson of 600 large US firms found that investments in information technology were co-related to higher productivity*.(Castells p. 90)

IS is basically characterised by knowledge and the way it is conveyed and disposed to its final receivers, in this case the consumers. In this society the consumer who has the chance to

get to the relevant information first will have an advantage, as this will provide him with the opportunity to precede others as well as benefit him in his area at a maximum. For example through the relevant networks, an investor might acquire relevant information, which will contribute in maximizing his/her performance. Both the researcher and scientist acquire the chance to access innumerable sources of information without having to move constantly, saving both time and money *"The successful organizations of the future will be those which are able to move quickly and change quickly"* (Bryson, 1999). Through accessibility of the IS, the consumer can now buy the products or the services he is interested in, as they are found in great variety, and proximity with extremely profitable prices.

On the other hand, the producer who can communicate the information first, will more easily be approached by the consumers and consequently, be nominated as the leader in his area of expertise. A business which channels information about its products through the networks, acquires access to a huge markets without limits or restrictions. As *Castells* puts it, *"a global integration has come about from the growth of networks this has in turn led to a de-bureaucratisation of affairs and the movers and shakers become those people who operate and are part of the network"*. (Webster p.102)

In Telework, the employee no longer needs to go to work every single day or comply with a specific timetable while the employer does not buy their time or presence in the company, but the quality of their work, their productivity and effectiveness in relation to the final product that they should deliver based on an agreement of a predetermined time limit. *"Telework is one option that provides needed flexibility for the employee, flexibility that the employee wants for family or other personal reasons. Telework is beneficial for the employee who wants more control of his or her work life"* (Sturgeon, 1996 p.27)

In the IS, the employers may run their company while being thousands of miles away, as the use of the basic services of IS release them from their daily presence in the company. Through the IS, telework will offer new employment opportunities to people with kinetic problems, not to mention people who live in mountainous or remote areas whose basic characteristic was the fact that they had been quarantined by the social and working

conditions that the big urban centre had to offer. *"E-work may provide an opportunity of incorporating, under regular terms of employment, populations that were not part of the work force due to various disabilities, and as a result generally became a financial burden to society, such as the handicapped and the unemployed. In this way, employment opportunities are made available to more members of the community, and various types of discrimination are reduced"* (International journal of Human-Computer interaction, Vol. 11(1) 1999) thus, information society, changes completely both their social and work life.

Business and Work

Disadvantages

On the other hand, it also presents certain disadvantages such as the reduction of work positions and underemployment As *Inose* puts it, he sates that "*The dramatic change in industrial and business structure that has been brought about by the information infrastructure is leading to a loss of jobs in traditional areas and a shortage of workers in emerging areas*". A smooth shift of the workforce is therefore crucial to insure sustained economic growth while alleviating unemployment. Not to mention the degree of social exclusion that people might face with the IS. The older generation for example who may not be able to understand or acquire the necessary skills to work with emerging technologies would feel very vulnerable and as a consequence feel inefficient.

In today's IS, the ease in which information is conveyed on the internet has resulted in the accumulation of a huge mass of data, thus effecting finding the desired information easily. The information overload may sometimes overwhelm and confuse the user, and as a result, may act as a deterrence or hindrance to the acquisition of material.

The mass of information daily accumulated in the electronic routes is so big that not long from now we will be talking about "network traffic". *"The reality of today's networks includes a large-scale nature and complexity, increasing congestion and alternative behaviours of users of the networks, as well as interactions between the networks themselves"* (Dutton p.231)

Citizens should now comply with the new rules of technology and telecommunication management and be aware of the various technological products that might influence the working and social environment. The struggle to be constantly updated demands money and constant training and these are factors which people might not always have the ability to respond to.

In Telework, paid work as we know it today (that is full time work under a single employer) will be substantially diminished since most jobs offered shall be on a part-time basis, in the sense that the completion of work will be required under certain specifications and a certain time. The employers' demands in knowledge and skills will increase the same way that the demands of working with new technology. While the power of industrial society is actually the updating of work power and working environment respectively, IS can offer important benefits in the occupational sector; these however, require special treatment in order to succeed the expected outcome. Telework, as one of the most important applications of IS, helps us to sketch out how our life will be in the future. This however, is not enough, since what we really need is to shape and make decisions about the future jointly, while simultaneously we prepare about it.

Environmental Factors

The IS's expected progress seems to benefit the environment as most of the material of the new technological products are recyclable, whereas in a number of other cases (electronic saving of documents, reduction of paper use etc) the IS contributes in the preservation of extremely important environmental means as well.

The profound advantages that the IS brings for the environment cannot be ignored. The lesser movements that people make, results in the reduction of unnecessary transportation and that in turn results in the de-escalation of the pollution of the environment, whereas the saving of sources from the reduction of paper and fuel consumption is also of crucial importance.

Several factors such as strikes in the means of transport, or bad weather etc, will not influence the company's flexibility which will function according to the standards of telework, as the professional activities will be carried out from distance. This goes along way in protecting our environment and natural reserves.

Cultural and Communicative Implications

The most important aspect that the IS has enforced is an ease in communication which has, in essence, led to a reduction in the cultural divide. People from different cultures, are able to work with each other and share ideas irrespective of their cultural backgrounds. The IS has developed the idea of learning in general, which has had a spill over effect to learn about other cultures breaking ignorance and reducing racism and other levels of prejudice. In addition, as we are eager to gain more knowledge, the IS becomes a society with a culture of learning, in such a way that knowledge and particularly the development of cognitive skills cannot constitute a fragmental procedure with an expiring date. It should thus be promoted into a constant and continuous effort, which will supportively accompany our professional life. *"The prosperity of a nation, geographical region, business or individual depends on their ability to navigate knowledge space. The more we are able to form intelligent communities, as open-minded, cognitive subjects capable of initiative, imagination and rapid response, the more we will be able to ensure our success in a highly competitive environment"* (Trend, 2001 p. 253).

All of the aforementioned give us the impression that we live in a virtual world, a world where everything takes place in a virtual environment, as what we experience is a virtual reality. Our introduction to the world of virtual reality does seem particularly difficult. Besides the obvious advantages that have already been mentioned, we are faced with a new dimension of things. Virtual reality is not actually real. It is neither life, nor sense, nor feeling or touch. It is a substitute of the above but not the above as such. In an IS if real is more represented by virtual then what would that signify for the human thoughts and values?

The role of education in the Information Society.

Advantages and disadvantages.

The conventional educational programmes demanded the presence of the trainee in their learning environment. However, that impeded the access of various social categories to the source of knowledge. In the IS the introduction of the information and communication technologies, within the educational system, changes its structure and its function radically. The typical relationship between the trainer and the trainee is now reversed, since through the electronic networks the educational procedure is transferred to the space of the learner regardless of the distance that separates them. Via a computer and the multimedia applications, the learner has the chance to participate in the educational procedure irrespective of time and space. Through teleconferencing, people all over the world will be able to share ideas and knowledge participate in various research projects, exchanging notes, bibliography etc. *"The transformation of education may be the most important of the many practical revolutions sparked by computer technology together. No facet of civilisation will be altered more radically"* (Robertson, 1998 p.93)

However, not all these important changes brought in the educational system by the IS, will necessarily be positive. Distance learning changes the principal relationship between the trainer and the trainee, as it creates a virtual learning environment. *"There is the possibility that with the significant growth of the number of telecommuters, an autistic society will emerge where individuals are cut off and isolated from one another and from public institutions."* (Baruch, 2001) The relationships fostered through a class setting seem to be overthrown and transformed into a new model.

We can schematically describe this new situation in the educational system of the IS as the place of those who are trained with the support of the educational multimedia and the people who educate them. In the hearing of this new reality which concerns the education in the IS, the role of the teacher-educator is diminished, as the extensive use and introduction of the educational multimedia in combination to the networking of educational units with sources of information, manage to create a scenery never known before, where the trainee can acquire their ability to search for knowledge in sources independent to the trainer's guidance, who

until today was the absolute master of order. Not to mention that that these new educational regulations in IS, deprive us the opportunity of a wider perception given to the trainee by the traditional way of learning.

Conclusion

As clearly seen through the advantages and disadvantages we cannot put a blind eye to the IS. Everything has its good and bad sides; however, we live in a time where the IS is a ubiquitous part of life. The pressing issues of today-global warming, pandemics, globalization, political reformations and discoveries in science and medicine requires one to be an informed citizen because *"a particular piece of information may actually change from private to public good or vice versa according to the context"* (Large, 1999 p.21).
I S will enhance individual citizens, which will in turn benefit society as a whole.

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