

**THE INTERNET AS A TOOL TO HELP BALANCE
URBANIZATION AND ENVIRONMENTAL CONCERNS**

Como referenciar este artigo:

GRAEML, K. S.; GRAEML A. R. "The Internet as a tool to help balance urbanization and environmental concerns" – Proceedings of the Second World Conference on POM and 15th Annual POM Conference, Cancun, Mexico, April 30 - May 3, 2004.

Abstract number: 002-0258

**THE INTERNET AS A TOOL TO HELP BALANCE
URBANIZATION AND ENVIRONMENTAL CONCERNS¹**

SECOND WORLD CONFERENCE ON POM AND 15TH ANNUAL POM CONFERENCE

CANCUN, MEXICO, APRIL 30 - MAY 3, 2004

Track: ENVIRONMENTAL MANAGEMENT

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¹ This paper was possible thanks to the support of CAPES, the Brazilian Post-graduation and Research Agency.

THE INTERNET AS A TOOL TO HELP BALANCE URBANIZATION AND ENVIRONMENTAL CONCERNS

ABSTRACT: The world is facing serious challenges as a result of non-planned urbanization, which is not an exclusive problem of large metropolis. Urban populations have spread to areas that should have been preserved, damaging the environment and deteriorating the population's quality of life. This has become a concern to ecologists, public authorities and scientists, all together, who struggle to find ways to minimize environmental degradation, ensuring some acceptable level of quality of life.

Technology may have an important role in developing possible solutions to reduce environmental damage and improve quality of life in the cities, as well as providing people with the chance of living away from metropolises and, therefore, being less exposed to the consequences of the excess of human concentration.

This paper discusses the Internet's impacts on people, the way they organize themselves in social groups and the way they spread around the globe.

KEY WORDS: Internet, urbanization, environment, quality of life.

INTRODUCTION

Cities began to develop as areas of intense human concentration ca. 5500 years ago. The modern urbanization process, however, only started during the twentieth century, as a result of the Industrial Revolution. Modern cities evolved originally in Europe and, soon afterwards, started developing all over the world (SJOBERG *apud* LIMA, OLIVEIRA and CARVALHO, 2002). Now-a-days, almost half of the world's population lives in cities and urban concentration is on the increase. According to BEZERRA and FERNADES (2000), the percentage of the world's population that lives in cities, which represented 37.73% in 1975, will be approximately 50% in 2005 and may get to 61.07% of the 6 billion inhabitants of the planet by 2025.

Although the concentration of the population in the cities is a global trend, it is more noticeable in the areas where a larger percentage of the people still live in rural areas (Africa and Asia). Latin America, which went through an intense process of urbanization in the twentieth century, will now be exposed to the impacts of increasing "metropolization" (SANTOS and BERNARDES, 200?).

For MENEZES (1996), there are differences in the structure of problems faced by industrialized and developing countries, with respect to urbanization. The challenge of creating suitable urban planning, however, is there for all. In developed countries, urbanists and environmentalists struggle to assure the same standards of quality of life to the citizens

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of the future, while in developing countries the challenge is to meet the demand for basic infra-structure, in spite of the very scarce resources.

URBANIZATION

The scale that was reached by the current process of urbanization in the world has called the attention of environmentalists, authorities and urbanists to the need of developing strategic planning, which can help to reach a balance between the stress that is put on the environment by human populations and nature's capacity to recover. OUCHO (1991), a contributor to the World Commission on Environment and Development's Report, argues that planners should not deal with *population* and *environment* as separate and distinct issues. The population is, indeed, part of the environment. Therefore, environmental planning should take into account not just physical, biological and chemical issues, but also the socio-cultural and socio-economic environment of the area. PEREIRA (2001) stresses the fact that the environmental problems are directly related to the way the population/society relates to nature during the construction of its survival space.

According to FRANCO (2001), if the population exceeds the capacity of a certain area, quality of life deteriorates and the freedom to choose one's way of life is completely lost.

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When population density becomes too high, people start searching for alternatives that would help them to rescue their quality of life, preferably without giving up the advantages of living in a metropolis, with good jobs, culture, convenience etc.

Those alternatives may be the consequence of good planning, concerned with improving the balance between *environment* and *society*, which would result in better quality of life for those living in the cities.

TECHNOLOGY

According to ARANTES (1998), technological innovations are changing people's expectations and, consequently, their way of life. As a result of technological advances, people do not need to live in a large metropolis, anymore, where the quality of life has deteriorated. Information and communications technologies together have made it possible for people to work from just about anywhere. That is one of the reasons of the success of some country towns with good telecommunications infrastructure: they provide almost all advantages a metropolis would, mainly with respect to the access to information and good jobs, without the inconveniences of living in a large city.

For those who are looking for better quality of life, technology may become an important ally. GRAEML, GRAEML and STEIL (2001) noted that the last two centuries were a time of intense technological progress. The second half of the twentieth century brought new and

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even more intense changes, with severe impacts on the organizations and on society. The use of computers became trivial and the connectivity provided for by telecommunication networks is revolutionizing the world.

In this new era, which results from the so called information revolution, people are becoming value their safety, health and quality of life. Concerns with the quality of life and with a healthy environment have become central to people's decision on where to live and work. Sometimes, good salaries become a secondary issue.

Having understood that, some large technology companies are moving to country towns or to the periphery of the large cities, where their employees can enjoy better quality of life, something that is only achievable at places where the balance between environment and society has not been completely ruined (ARANTES, 1998).

When it is not convenient for a company to move to a more pleasant environment, it can still benefit from Information Technology and the Internet to provide workers with alternative work arrangements, such as telework and videoconferencing, among others. The virtualization² that is made possible by technology enables an executive, for example, to live away from a metropolis, in a place where quality of life is more satisfactory. At least part of

² According to LEVY (1996), virtualization is characterized as the freedom from the "here" and "now".

his/her activities can now be performed remotely, using a computer and an Internet connection. According to SOARES (1995), the flexible working hours of telework allow for more time with the family, improving relationships between husband, wife and kids. Another advantage of such an arrangement is that mothers can educate their children and take care of them without having to quit their jobs.

The possibility of working from home contributes to reduce car traffic and pollution in large cities. It reduces the stress of coping with traffic jams when driving to/from work. According to BEZERRA and FERNADES (2000), the number of vehicles on the streets in Brazil has increased drastically over the years. In 1960, there was one car for every 72 inhabitants. In 1998, the rate had fallen to a car for every 5 Brazilians and by 2005 there will be only 4.3 inhabitants per vehicle. The average commuting will increase from 1.5 trips per inhabitant per day, in 1995, to 1.7, in 2005.

RAGURAN, WIESENFELD and GARUD (1996) say that organizations are experimenting with alternative work arrangements in order to reduce problems faced by their employees due to the distance and time taken to go from home to work. A simple solution they have found is to shift commuting in time, to avoid the rush hours in the metropolises.

Besides allowing people to work from home, the Internet also provides them with the possibility to do their shopping without having to go out, by means of the electronic commerce. Impacts of the use of the Internet as a communication and interaction channel among individuals, in their work, commercial, personal or leisure experiences are so

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significant that they have to be analyzed in a much deeper fashion. Such an analysis becomes even more relevant when one thinks of all the technological developments still to come: faster modems and transmission systems, increased computational processing power, integration of the telephone to television and computers, not to mention the possibility of remotely activating electrodomestic devices and other networked equipment (MORGADO, 1998).

The convenience, easiness and comfort of working, purchasing and talking with other people without having to leave one's home is bringing huge crowds to the Internet. People, including children, spend more and more time in front of the computer, looking for fun, convenience and information. The new way of life this computer mediated world introduced demands reflection and discussion about the socialization of human beings.

Many authors criticize the excessive use of the computer, saying that such behavior may cause social isolation. According to NIE and LUTZ (2000), the Internet is generating a wave of social isolation in the USA and "feeding the ghost" of a world without emotions or human contact. "The more time people spend on the Internet, the least time they spend with other human beings" alert those authors. Their study shows that 55% of the Americans are already connected to the web and 43% of the countries' homes have computers with access to the Internet. Navigating through the cyberspace is no longer a work habit. It is becoming a domestic habit, taking up the time that used to be spent on leisure and social contact. That type of behavior may also affect teleworkers, who may start finding it difficult to separate work from leisure time with the family.

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CONCLUSION

During the twentieth century, the relationship between human society and the planet went through huge transformations. Cities became overcrowded, green areas were turned into deserts and air pollution reached unprecedented levels. The environment, as a whole, was disrespected and badly treated. The terrible consequences of environmental degradation started being felt and caused the mobilization of environmentalists, researchers and the population to try to solve the problems of large cities. Committees have been organized, such as the one for Agenda 21, reports have been written and alternatives are being generated, with the purpose of reaching a different kind of relationship between men and the space they take in the planet.

Previous research about the Internet and its impacts on the relationship of companies and consumers by authors of this paper (GRAEML, 2001; GRAEML, GRAEML and STEIL, 2001) points out in the direction of even stronger changes in the way people relate to others, socially and professionally in the future.

It is still difficult to predict exactly where this new “revolution” will take us. Some treat it as a transitory trend. It’s comprehensible. After all, the importance of many technologies and their impact on society were under-evaluated by contemporaries of their introduction stages, before. William Orton, the president of Western Union, thought it was wise to decline from Graham Bell’s proposal, when he was offered the patent of the telephone: “What use would this company have for an electric toy?” was his comment. Digital Equipment’s Kenneth

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Olsen's prediction on the relevance of the introduction of the personal computer also fell very short: "there is no reason for a person to have a computer at home" (CERF and NAVASKY, 1984).

Western society is extremely concerned with the short term, when the matter is finding solutions for the problems it generates. It pleases itself with momentary solutions, even when there is strong indication that the current solution will generate more problems in the future than those it currently solves. That kind of behavior can be partially assigned to an irresponsible sense of enjoying life now and concerning about the consequences of one's unthoughtful behavior later. Lord Keynes explained humanity's short-sighted views by saying that "in the long run we will all be dead" (REICH, 2000). Another possible reason for the careless way society has been dealing with environmental issues may be the generalized feeling that science will find solutions for any problem. Western society views technological changes as something essentially good, an infallible medicine for all evil.

One doesn't need to make much effort, though, in order to understand that technology is not capable of solving all the damage imposed on the planet by mankind. It isn't capable of ensuring that eventual side-effects of the technology will be solved by the introduction of even newer products and technologies, either.

Therefore, the study of the impacts of the Internet on the people, on the way they socially organize and on their quality of life is extremely relevant.

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This paper has discussed some of the apparently favorable effects of the Internet on the cities, resulting from the reduction of the pressure on large cities and the people who live there. Considering, however, the human tendency to overemphasize the benefits and forget the draw-backs of new technology, further reflection and reasoning about its impacts and implications would be welcome, which represent an interesting field for future research.

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