Potentials of Information and Communication Technology (ICT) for Sustainable Medium of Urban Areas and Communities Centre

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Abstract
Development of information accessibility tele-communicability and virtual commutability and their impact on urban areas and urban communities are parts of the very core concerns of contemporary urban theories, methodologies and practices. While the new hyper drive towards the ubiquitous virtual mobility of becoming the dominant mode of being in cities, it is exposing desperate consequences to cultural experiences, economic conditions, social networks of urban communities and their new living. The level of accessibility to new ICT and new means of cyber mobility is becoming a formative factor of the socio-spatial gradients and demographic complexities in urban and suburban settings. It is also argued that ICT provides "new living" alternative environment although at the same time it has inherent potential to isolate and alienate communities. This paper provides this new development of transformational role of ICT on social interaction of urban communities and urban areas in general.
Keywords: Information communication technology, urban areas and urban communitiessustainability, accessibility cyber mobility, new living modernity

1. Introduction

Habermas J (1984) presents a way of parceling the modern mode of development. He attempts to clarify and redefine the notion of modernity and modernism in relation to communication and its inevitable magnitude for contemporary societies. He argues that modern societies as are developed during the last century are structured around a particular social order based on principles of instrumental rationality in the sense of being capable and effective at delivering the aspirations of the systems or those in power.

To Habermas instrumental rationality has limitations to apprehend the importance of the existing communication channels and hence has a clear tendency to ignore the social values, cultural wealth and identity of localities and the life world (Habernas 1984). In other words the strong confidence of modernism in instrumental rationality has led to an overall failure to appreciate the importance of reciprocal communication flows and procedures as the main amplifiers of social opportunities and the key combatants of injustice, discrimination and inequality among diverse social strata (Kazemian R and T. Haas 2010).

This means therefore while communication rationality through the use of ICT offer possibilities to create new living and modernity it does not cut across all the social

strata and hence the need to eradicate the existing communication inefficiency between haves and have nots.

2. Relationship between ICT and Urban Communities

As we enter the new millennium, one of the crucial issues is the question of ICT in relation to urban areas and urban communities. There are indicators that new ICT services will characterize the next century. These will need to certify the demands and aspirations of urban inhabitant.During the last few decades, presence of urban life was not much so felt as it is today. Interaction between urban communities interms of carrying out their social and economic activities was slow and this was for only the privileged. During that time, People were more aware of the self in relation to the outside world. It was difficult to asses the dimensions of the world beyond.

Haas and A. Roberts (2010) note that today's society is becoming more global, moving into the "on-line" reach of wireless networking with interconnected computer terminals, improved telecommunication and IT facilities as well as digital media appliances. Trends of information technology (IT) have become more and more part of the overall 'wave of people's lives. These have brought the whole world closer to people, have reduced travel, and have brought people spatially and socially closer together.

Nevertheless, there is a growing concern confronting modern communities with unexpected effects targeted towards the most vulnerable social groups in terms of imbalanced power-structure, unfair resource allocation, educational inequality and inaccessibility to ICT facilities. The main questions, that we can ask is that can communicative rationality act as a major leveler of the gaps between system and life world be deployed as a reliable abolisher of deficiencies in distribution of possibilities ? Secondly, Can ICT be deployed as a central mediator of urban community life and function as accelerator of social and spatial qualities? And third, can the wide spread use of ICT support Urban communities sustainably?The answer to the above questions is that there is need to reduce this irony and meet today's challenges in a sustainable way. We must find pathways that allow changes to occur that will not degrade the potential of urban communities as well as functional urban changes.

Urban Communities are experiencing a ground –breaking condition when opportunity to rapid information exchange and accessibility to ICT are becoming an inevitable necessity of being. It is important to note that globalization has turned our perspectives towards un identified horizons that are likely to be the sources of our future economic revenue, our cultural values, our system of thinking, the way we interact with the every day life and the medium we choose at the world around us and beyond (Schon, et al 1999).Castell, Me (1996) observes a revolutionary condition in ICTs that has welded its

presence on modern urban life .He agues that this emerging revolution in ICT has not only caused the gap between the rich and poor communities but has also exacerbated it.

3. Sustainable urban communities

Tigras Haas and Andrew Roberts (2010) observe that sustainability is not a fixed formula for all solutions but rather it implies different solutions for different places. It is a philosophy and a way of life that expresses adaptability. As a concept it allows on one hand utopianism and conjectural thinking, but also a realistic tool ready for use here and now, in every aspect of life, on the other. It should be noted that the interest of sustainability arose out of the desire to increase quality of life, preserve the environment for present and future generations and provide opportunities that economic development can bring. The concept of sustainability is also closely linked with the most powerful need of our life time: the need to over come poverty, the need for environmental protection, and the need for social justice and cultural diversity.
In view of that ICT can serve as a powerful tool for social progress, for sustainable development, and for sustainable environment. Technology can be used to provide basic services, health carne and new impulse for education. New technological applications can be used to the advantage of those places or groups with low or limited access to services by promoting a more sustainable and balanced development. The diffusion of ICT has a great potential for social empowerment and bottom up developments. This implies empowering individuals and groups from the bottom up, allowing ordinary communities to become active participants rather than passive recipients of information.

4. Transformation of urban areas through ICT

Urban areas are the most sensitive recipients and leading carriers of values and norms of civilization. They are the vital ideological, cultural, political, economic social and technological actors of societies (R. Kazemain and T. Haas 2010). Urban areas take shape through accumulated values and norms, and when values and norms begin to change; the form, meaning, content, identity and function of urban is affected as well. Urban areas are also the vibrant generators of social capitals continuously inaugurating new concepts, new meanings, new norms and new values of human cultures.
Technology in general and ICT in particular have been among the most influential forces that have transformed the norms and valves of societies. Technology is also among the powerful factors that have put their impacts on the design of urban areas or cities. Due to technological innovations and advances, the design of urban areas is foreseen to be highly compound, unique, uncertain, and full of unpredictable value conflicts. Nevertheless, the abilities of urban areas to adapt to the prevailing condition and be able to harness the opportunities arising from technological novelties are divergent and their paths are different. What is emerging are conditions that are instigating considerable socio-spatial decomposition and conflicts in future urban areas

and cities in particular.Simultaneously, new technological outcomes are entailing genuine possibilities unrevealed to conventional urban design theories, methods and process inherent from the past industrial Age.

Kazemian (2009) observers that with the technological innovations in ICT, a new global awareness on urban design convolutions is growing among planning and design practitioners, local policy makers and academia. Many urban researchers are reconsidering skills, theories, traditions and methods of urban place making. What it means here is that urban designers are turning their attentions to quality and sustainability issues of urban life; to the predicament of the larger social, cultural, economic, and political texture of urban areas, they are gaining new knowledge of urban design practice as entities shaped by intensely interwoven networks of processes, products and organizations.

It is important to note that since the 1990s, ICT has become very powerful agent of social and economic changes, deeply ingrained with functioning of new socio-spatial and politic -economic organizations of urban areas. Tel-communications and exchange of information in real time have become the main foundation of rapid transformation of urban areas and cities through effective and efficient connectivity. This is in form of moving from use of telephones, faxes, mobile phones, e-mails, face book to the popular twitter conversations. This transition has taken place for obvious strategic reasons of global competition and fight for survival. Many economic activities are increasingly linked to ICT processing and transmission, or critically dependent upon Tel-communication accessibility.

5. Importance of Breakthroughs Due To ICT.

These breakthroughs and innovations have detached a large portion of people especially in the rural areas from the peasantry life to take part in ICT revolution. People are not only able to trade goods but ideas as well as information. Cities have become more complex, very populated and further expanded behind the city walls. The individuals in cities are empowered by new information and telecommunication technologies.

However, according to the United Nations Development report, 2001, it states that " people all over the world have high hopes that new technologies will lead to healthier lives, greater social freedoms, increased knowledge and more productive livelihoods, that the 20th Century unprecedented gains in advancing human development and eradicating poverty came largely from technological breakthroughs (UND Report 2001.)

6. Information Technology and new sustainable living

The future of sustainable communities will depend much on ICT and "new living". The modern alternative living will be dependent on availability of affordable housing,

efficiency energy use, clean environment, good health, sufficient food production among others. However, these will have to be complemented by advances in ITC.
ICT is continually reducing spatial distances allowing people to spend more closer to home. The communication capabilities that can allow this are in form of video conferencing, on-live data-searching capabilities, facsimile transmissions among others. Telcentres will promote private and public organizations and will set up satellite offices near neighborhoods, providing computing and communication connections from a location close to where workers live (Pamela B, 1996).

Advanced technologies have potentials for administrative growth and knowledge expansion. However, there are many broader social implications as well which are now beginning to be realized.For example, in places where technologies are becoming predominant and part and parcel of ones daily life, it increases the potential for isolation and alienation (Thomas B.R, 1993) This therefore underlines the need to sustain communities in places of social interaction, neighbourhood cohesion, street life and civic vitality.

Advancement in ICTs has the potential towards saving in time, energy, natural resources and psychological stress. Communities for example could put most destinations within walking, bicycle riding or short commuting distances. This will be achieved by use of telecommunications, computers, and other new technologies which will let many people work form their homes. Cervero, R (1995), refers to this as "Information superhighway" which in many respects "living superhighway" where the need to "walk to work" or travel in general is reduced.

On the one hand however, despite the positive potentials cited above, Doheny-Farinas, (1996) Suggests a more negative potential. He points out that the new forces of ICT can either enhance communities by enabling a new kind of local public space or it can undermine communities by pulling people away from real personal interactions towards virtual ones. Researches have shown that computers were supposed to make it possible for people to avoid working in cities, but recent history shows that people work best when they are together, and that this happens in the city. (Neal R.P 1998).
In light of the above therefore, it is important to support the ICT movement not on the expense of people disappearing in the globalised world, but accepting the new technologies as instruments that can help build stronger and more humane communities as well as enhancing modernity in cities and urban areas in general.

7. Some Draw Backs of ICT

Inspite of the efficiencies brought about by ICT; there are a number of worrying side effects. There is disappearance of traditional places these used to encourage social contacts physically instead of interacting through remote wireless connections and online face to face meetings and charts.Accessibility to ICT facilities id confined to a

few who can afford. There is what is termed "digital divide" caused by unjust distribution of resources, inefficient infrastructure and luck of the necessary computer literacy or skills among others. The speed at which ICT is changing brings other issues of affordability and adaptability of the new technologies and innovations. While the new advanced ICT technologies can easily be accessed, it takes time to be defused in the developing countries and it becomes short-lived as soon as it adapted.

8. Conclusion

Connectivity to information and communication devices is shaping the important essences of our relationships that are communication exchange of information between people. The convergence of information and communication technology and its diffusion from high tech and work environments to home and mobile locations are visibly transforming urban areas and the people. ICT will be an important force shaping communities of tomorrow in a sustainable manner although not a predominant one. ICT as an agent of globalization, economically, socially, politically can serve as a powerful tool for social progress for sustainable urban and community development. With respect to meeting new ICT challenges, it requires comprehensive and focused response. Individuals and countries in general should be empowered to get access to new technologies as well as adapting themselves to new innovations.

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