

# Exploring Social and Economic Impact on Built Spaces in the Telecommunication Era

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**Abstract:** City is a physical and a social entity. The telecommunication era changed the social and economic patterns that will influence generations. Urban places and electronic spaces can be seen to influence and shape each other, and it is this interaction which will define the future of cities. Telecommunications allow infrastructure and transport systems actually to extend their capacities to further urban growth. New telecommunication technologies bring new options and capabilities within which urban processes can be shaped. The fusion of a range of technology driven structures and systems into the old fabric of the city has marked the beginning of such transformation. Derelict industrial spaces are rapidly being transformed into foci of global consumption and culture. There is a de-concentration of many cities into multi-centered urban areas and reshaping as edge cities by the combined decentralizing power of transport and communication backed by advanced technology. The paper explores such restructuring components that tend to transform the social and economic patterns of built environment.

**Keywords:** Telecommunication, Technology, Built spaces, Cities

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## 1. INTRODUCTION

Change is inevitable and acceptable, but the real intent is to adapt to the right change which will brighten the frontiers in future generation. We must understand the importance of our social life and make our constructed environments livable and sustainable. Accepted notions about the nature of space, time, distance and the processes of urban life are similarly under question. The boundaries separating what is 'private' and what is 'public' within cities are shifting fast. Urban life seems more volatile and speeded-up, more uncertain, more fragmented and more bewildering than at any time since the end of the last century.

## 2. THE CONCEPT OF SPACE AND PLACE

Norberg Schulz in 'the Genius Loci' presents that man dwells when he can orientate himself within and identify himself with an environment. Further he identifies the distinction between the concepts of 'space' and 'place' to our interest and elaborates that the 'spaces' where life occurs are 'places'. In the present era there seems to be a death of places everywhere with the advent of technology and innovation. The Public realm which creates liveable public environments and social life are becoming absent. The architecture driven by utopian and paradoxical ideas are changing the typology of livability. Everything is dictated by new technologies making lives more "virtual".

## 3. SOCIAL IMPERATIVES

Social change in modern times has become the symbol of a continued movement towards modernization. Social means collectiveness and behave as a community. The places where people communicate as a community are getting dissolved.

The human experience of place and social construction of cultural identities by groups and individuals is radically altered in emerging global cultural systems by integrating people and places through circulation of images, knowledge, information, symbols, etc. in 'real time'.

Lewis Mumford's in "What is a City?" defines the city as a "special framework directed toward the creation of differentiated opportunities for a common life and a significant collective drama". The city to him is a "theatre of social action." The significant collective drama which was evident in our cities is fading and the theatres of social action are the computers and modern technologies.

New Technologies, that have emerged since mid 1970s are transferring production and consumption, management and work, life and death, culture and warfare, communication and education, space and time.

Economic technology driven tele-communication has sparked off a massive economic restructuring by facilitating the phenomenon of globalization and in turn an intense global market competition has radically altered the traditional industrial fabric of many western cities through deindustrialization. Such phenomena of deindustrialization can be witnessed in the most recent shifts of manufacturing houses in underdeveloped and newly industrialized countries by more responsive and thoroughly networked corporations operating across global distances. Thus a global division of labour is created as argued by Graham and Marvin (1996). Even political decisions towards liberalization of investment markets have boomed the financial services. Information apart from playing the key role in the production of all the sectors, it too is emerging as a basic commodity to be brought, sold,

traded, exchanged, etc. As a result of all these shifts, 'industrial cities' has transformed into post industrial or 'information cities', dominated by consumption industries and the processing, storing and circulation of vast flows of electronic information on a continuous and real time basis points out Manuel Castells (1993).

#### 4. TELECOMMUNICATION AND THE CITY

Steven Graham and Simon Marvin (1996) argue that telecommunications will affect the urban development in a number of ways- economical, commerce, transportation, social, cultural and environmental layers.

Political shift towards liberalization and the growth of investment markets have led to a remarkable boom in financial services. This has fuelled the growth of the larger cities which are placed at the hubs of global electronic and financial service networks. The result of these shifts is that the economic activity involving the transactions of information now dominates the economics of western cities (and few emerging cities) as never before. Because information has such a central place in the production in all sectors, it is also emerging as a key commodity to be bought, sold, traded and exchanged in markets. This is made possible by telematics. A corresponding shift has gone into the labour market in the cities, with 60-70 % of new jobs concerned with some type of information processing, distribution or production. Investment in telematics now surpasses investment in any other industry.

#### 5. ECONOMIC TRANSFORMATION

This economic transformation in cities is associated with growth of structural unemployment (growth of well paid knowledge intensive jobs dwarfed by the loss of manufacturing jobs). The result is that the cities are being restructured from internally integrated wholes to collection of units which operate as nodes on international and, increasingly global economic networks.

As a result, world financial capitals have emerged as key command and control centers, where best jobs are located. Smaller non- industrial towns managed to specialize in advanced manufacturing and high technology services, others as key tourist centers. Same time, many older industrial towns have to compete even for low order service jobs. In this context, because of the speed of these systems and the erosion of the attachment to the place, the city economics are more turbulent and face many uncertain futures. The new telecommunications and telematics innovations, however, force a social, economic and geographical polarization within cities. The human experience of place and social construction of cultural identities by groups radically altered to globalization.

The economic and social shifts have led to a growing concern for environmentally sustainable urban futures, as to reduce pollution, less vehicles and less congestion. Most often this analysis is hampered by the assumption that telematics based flows can substitute physical transportation. But the solutions are not that simple and such a substitution is not simple. Rather, telecommunications can help make traveler cheaper, coordinate and reduce congestions. Although telecommuting and teleworking methods help reduce peak time congestions, they have second order effects. They use same energy levels and weakens the need for living in close proximity to work, which can encourage urban sprawl. What can be done is the use of combinations of transport and telematics innovations to make work process more flexible in time and space. Fixed constructions of places and buildings in the urban places linked into electronic networks and 'spaces' seem to define contemporary urbanism.

In addition to the deconcentration of many cities, the restructuring of the cities and new telematics leads to the emergence of multicentered urban area – what Jean Gottman(1983) called 'megalopolis', as supporting economic activities away from urban cores. These 'Edge Cities' are reshaping the physical layout of urban areas using combined decentralizing power of automobiles and telematics. Core cities are turned into extended urban regions; they themselves part of bigger megalopolis. But this decentralization do not mean the end of cities as we know. Telematics based restructuring will also lead to new corporatist approaches to urban government for the regeneration and successful entrepreneurship of the role of the city as a node on urban networks.

Manuel Castels, in *European Cities, the Information Society and Global Economy* (1993), also tells how information technology will restructure relationships between rich and poor, labor and capital, centralization and decentralization of services, governments, the individual and society.

#### 6. INFORMATIONAL CITY

The informational city is the urban expression of the whole matrix of determinations of the informational society as the industrial society was the spatial expression of industrial society. The character of informational city is determined by space of flows over space of places. By space of flows, Castells refers to systems of exchanges of information, capital and power that structures the basic processes of societies, economies and societies. The informational city is at the same time the global city, as it articulates the directional functions of the global economy in a network of decision making and information processing centers.

Finally, the informational city is the Dual city, because informational economy has the tendency to generate polarized

occupational structure, according to the capabilities of different social groups.

## 7. GENERIC CITIES

In Rem Koolhaas's *Generic Cities* (1995)- you see homogenization, endless repetitions of the same structural module, still more varied boredom, redundancy, and *deja-vu*, but also a city that is fractal, discontinuous, made up of enclaves, seemingly accidental and disorderly. The generic city is not planned, it just happens. The Generic City is found by people on the move, the move created by shifts by telecommunications, transnational and transcultural migration for work, pleasure and business. The generic city is the city without history, without layers, superficial like a film studio, in a process of never ending self-destruction and renewal. This city is liberated from the captivity of the centre and of identity. (Koolhaas Rem, 1995)

The Generic City is what is left after large sections of urban life crossed over to cyberspace. The Generic City is also multiracial and multi-cultural, flexible diversity, aesthetic 'free style', and lots of mirrors. It may have mass tourism, but the streets are dead and the public realm has been evacuated in the favour of cars, highways and speed. (Koolhaas Rem, 1995)

Koolhaas points out that Singapore is a Generic city that removes traces of authenticity and many such Asian cities are copies of western architecture. He also says that in China, cities seem to emerge out of nowhere in about eight years due to the rapid shift in communication technology and economy. Singapore strategies for internationalization of the 1991 concept plan allocate landuse for future high technology and information based industries. The concept of the planned decentralization was to decongest the business and commercial dominated central area and make it well connected by MRT, light rail and expressway system. Technology corridors are the business parks i.e. industrial estates of the future-non-pollutive industries and business that engage in high technology, research and development, high value added and knowledge intensive activities.

## 8. SOCIAL CHANGE-WHAT IT BROUGHT:

Socially and culturally, the new information based economies will have destabilizing effects. Global marketing means intense global competition and may lead to sharp division between the information-rich and the information-poor trapped in 'information ghettos'.

Environmentally, telematics will contribute to the efficient management of every kind of infrastructural networks. The trend is towards both movement and communication intensive society based on growing flows of goods, people, services, information, data and images. Both in fact feed off each other rather than undermining and combining them work process could be made more flexible in time and space.

An amalgam of urban spaces and electronic spaces occur whereby the fixed and tangible aspects of familiar urban life interact continuously with the electronic and the intangible. For example, the daily life of an urban resident leaves a continuous set of digital images as it is mapped out by a wide array of surveillance systems – close circuit cameras, electronic transaction systems, road transport informatics and the likes.

## 9. REFERENCES

- [1] Bouchet Dominique (1998) Information technology, the social Bond and the City: George simmel updated. Volume 24, number 2/3, 1998, pp104-133
- [2] Budman R.A. (1992) The power of the Machine, The impact of Technology from 1700 to the present, London: penguin.
- [3] Castells, M. (1996) The Information Age: Economy, society and culture. Volume 1: The rise of the network society. Blackwell, Oxford
- [4] Castells, M. (2008) European Cities, The Informational Society, And The Global Economy, Wiley publishing 2008
- [5] Freidman Ken (1998) Building Cyberspace: Information, Place and Policy. Built environment, vol 24, number 2/3, 1998, pp83-103.
- [6] Graham, Stephen and Marvin (1996) Telecommunications and the city, Electronic spaces Urban places, London, Routledge
- [7] Jacobs, Jane (1961) "The Uses of Sidewalks : Safety" The Death and Life of Great American Cities
- [8] Koolhaas, Rem (1995),. *Generic Cities*", (Small, Medium, Extra Large)
- [9] Michael Peter Smith(2001)*Transnational Urbanism: Locating Globalization*, Blackwell publisher, 2001
- [10] Mumford, Lewis (1937), "What is a City?" Architectural Record
- [11] Oldenburg, Ray "The Character of Third Places", Great Good Places
- [12] Roberts Marion, Lloyd-jones Tony, Erickson bill and Nice Stephen (1999) Place and space in the networked city: Conceptualizing the integrated Metropolis. Vol.4, no.1,1999.
- [13] Wilson, Mark L, Kenneth E.Corey (2000) *Information Tectonics, Space, Place and technology in an Electronic Age*, Chichester, England: John Wiley and Sons Ltd.
- [14] Wirth, Louis (1938) "Urbanism as a way of life" American Journal of Sociology

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