

The Influence of Information Technology on Spatial Development

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Key words: Information Society, Information and Communication Technology, Spatial Change, Land Use Planning and Land Use Planners.

ABSTRACT

We live in an era of rapid change moving towards the information / knowledge / network society. *eCity*, *eRegion*, *eCountry*, *eEurope* and the like are targets of many authorities round the world. One of the driving forces of this development is the new information and communication technology, ICT. This technology has progressed rapidly during the last 20 years and the pace of development of new tools and applications is intense.

The microprocessor, personal computer, mobile phone, e-mail, Internet, WWW and a number of software are good examples of ICT. The use of these tools is growing continuously and at a fast rate. The productivity of industries and effectiveness of services have increased. Civil society has found new ways of networking. Individuals have easy access to information around the world. Mobile and wireless communication is becoming commonplace.

One aspect of ICT has been rarely discussed and that is: will ICT influence spatial development. During the agrarian era rural areas were the focus of life, during the industrial era urbanisation took place. Railways and roads shaped spatial structures. Modern telecommunications can be seen not only as a new way to behave but also as new kind of traffic. Thus it can be predicted that ICT, as an essential element of information society will reshape in the long run current regional, urban and rural structures and create new spatial forms for urban and rural life.

Although there is still only little empirical evidence about new spatial development tendencies, a number of scientists have described these phenomena and predicted that essential changes in the structures of cities and regions will take place. The basic principal reason for this development is the change in the meaning of space, place, distance and time as the determinants of location factors. Space and place are not affected by distance and time factors in the same way than before. ICT gives more freedom for location and the specific features of place will play an important role in selecting locations of activities. ICT will also change the traditional ways running businesses in industry, services and other organisations as well as in everyday life. These developments will also have spatial consequences. The conventional and virtual worlds will function at the same time.

ICT will have both centralising and decentralising effects, it will influence production and services, location of offices and housing, foster *ework*, have impact on traffic etc. It is still difficult to perceive how these new technologies will affect spatial structures. It is definite that changes are taking place all the time and we are just at the beginning of this evolution.

TS8.1 Basic Planning Aspects and Examples Worldwide

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For spatial planning change is always an opportunity. Spatial planning in general and land use planning in particular are important tools to guide the development also in the future. Therefore land use planners should be aware of these development tendencies and be prepared for the new challenges they are facing. What is needed is a new way of thinking and new planning applications based on new knowledge about the spatial impacts of ICT. Planners have to work for their own city and region and benefit from the opportunities new technologies provide. Winners are those who will understand the emerging new spatial order.

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