## Technological innovations – the world is shrinking

**Technology** 



The world is shrinking. Both the time and the cost of transporting people, goods and information across the globe have fallen dramatically. Technological innovations have taken both transport technology and the telecommunications industry to extraordinary heights. Together they have created a world where global transports and intercontinental communication and coordination are carried out on a daily basis. In the nineteenth century rail and ocean transport could not have developed as they did without the telegraph, similarly the far more complex transport system of today depends heavily on telecommunications technology.

Though transport and communication are closely interwoven in a very important symbiosis, telecommunications is significantly important in its own right. Determining the effects of telecommunications poses some difficulties since this technology in its most potent form is an integral part of what is usually known as IT, but what Dicken more precisely labels " convergent IT"(Dicken, 1998, p. 151). The problem is that IT is neither telecommunications nor computer processing but the two combined with synergy effects as a result, causing separation problems in examining the effects of each component.

However, a commonly accepted distinction is that telecommunications is the actual transmission of information and computer processing deals with the information. The purpose of this paper is to give an overview of the telecommunications industry, describing both past and future, and also to give a deeper insight in Swedish industry through a case study of Ericsson. A third aspect of this paper will also be the description of geographical transitions within the financial sector caused by the telecommunications industry.

Applying theories, introduced to us during the course " Omvirldsanalys", we will try to give an as accurate picture as possible of the complexities and dynamics of this most exciting industry. Development in the telecommunications industry has been very rapid, especially during the latter half of our century. From the telegraph of the nineteenth century and Bell's invention of the telephone, we have leaped into a world of personal mobile communications and digital video conferencing. In the postwar era, the most important medium was the telex. Nowadays the telex has been displaced by the facsimile machine (fax), which as a medium has experienced phenomenal growth.

Right now, however, we are in the beginning of a new shift as we replace our facsimile machines with electronic mail. As an ever-increasing number of people connect to the Internet, the trend towards integration between communication technology and computer technology should be clear to all. " The new telecommunications technologies are the electronic highways of the informational age, equivalent to the role played by railway systems in the process of industrialization" (Henderson and Castells, 1987, p. 6).

The most important catalyst to increased and enhanced global communications was probably the development of satellite technology. Satellite transfers are very quick and are also insensitive to distance, which makes them very competitive as vessels for information. The first satellite designed for commercial telecommunications was launched in 1965. Named " the Early Bird", or Intelsat I, it had the capacity to carry 240 telephone conversations or two television channels simultaneously (Dicken, 1998, p. 155).

Thirty years later, in 1995, Intelsat VIII was launched, when given maximum capacity it will handle well over a hundred thousand two-way telephone circuits. The Intelsat system is a consortium of 122 countries whose satellites are positioned to give complete global coverage. In addition to Intelsat there are today a number of different actors on the satellite market, among them are Eutelsat and the PanAm Global Satellite System, which was the first private system to provide global satellite services.