

networks  
 introduction  
 socioeconomic  
 aspects  
 classification  
 LAN topologies  
 concepts  
 network software  
 the OSI model [1/2]  
 the OSI model [2/2]  
 the TCP/IP model

news  
 glossary  
 links  
 downloads

credits  
 contact

search

 

last update  
 19/02/2003



[hit.parade](#)



## ► Socioeconomic aspects

### Social aspects

#### An answer to vital needs

We cannot neglect the consequences of networks. These consequences are what people do with networks, whether these uses may be expected or not. The relevant point is that networks have become the medium of two vital needs of mankind: the need for meeting and communicating with other people and the need for entertaining.

Networks are an answer to the need for meeting and communicating with others because they have been invented and developed to fulfil this basic need. Initially networks were the medium of communications only between companies, but progressively news and chat servers became available to everybody. Being able to communicate so easily has some interesting consequences: some people tend to shut oneself away because their needs of meeting other people are fulfilled by virtual relations on the Internet. Fortunately enough, these cases are rare. Other typical example: mobile phone that has completely freed men. Every single moment of our lives can be shared with everybody, where ever we are (even the cinema or the theatre; that is regrettable: some cannot moderate themselves and guess where are the boundaries of freedom). In a more general way, a complete virtualization of human relationships and freeing of geographical limits have (sometimes important) consequences we can hardly measure.

The "answer to entertainment needs" aspect appeared only a short while ago; it actually appeared in the 90's, i.e. when the Web was born. The World Wide Web only made the Internet more attractive, and it is certainly this aspect that made what the Web has become. Networks have contributed to develop new kind of games (network games) and these games bring a very important interactive and world-wide aspect to ordinary games.

#### When a man meets the others

The weak point of networks unfortunately comes from the answer they give to these two vital needs: the perversion of some individuals is calling everything into questions.

Illegal uses of networks and the Internet, to convey prohibited or reprobated information (pornography, nazism or pedophilia), have made change their mind to people who had a positive view of these technologies. Software or works piracy have become common and companies that built huge businesses on them are starting worrying. Beyond these big companies, this may endanger young artists.

Through these barbarism acts, some may look for a social gratefulness. As they cannot be a pop star, they prefer to use their knowledge in computer science to hack web sites ou phone lines, or even program destructing viruses. They do so only as a simple brain game or for competition. Reasons for this are various and numerous and they reveal a fundamental anthropological problem: which is my place in the society in relation to others. In most cases, even if it was not basically

malicious, we can feel a huge need of expression towards the outside world: I need to speak, tell I exist so here am I! It is often a deceitful game: it is very easy to surf anonymously on the Internet, but finally we do not want to be that anonymous, so we take a nickname and we hack web sites. It is not spiteful to become famous; becoming famous by harming others is spiteful.

Two of the factors that tend to favour those facts are the increase of band width (it is easier and easier to transfer huge amounts of data) and the increasing number of users. This latter factor is particularly interesting because it means that the Internet is gathering more and more people that are likely to realize this kind of reprehensible acts. With the current increasing rate of the Internet big companies are naturally investing a lot of money in more and more sophisticated security systems.

### **The society into question**

The new problems we should have to solve are fundamental, since it is somewhere a matter of calling into question a part of the foundations of the current society: accessing information is a right, so who should be punished for the misuse of these resources? All the more so it is quite easy to change one's identity (not to say becoming completely anonymous) on the Internet. As it is not easy to know who did these licentious acts and as a crime cannot stay unpunished, should we sentence the web hoster who was too lax by hosting this web site, or simply blame the Internet provider that favour the access to this site?

The problem of private liberties is also to be questioned. The typical example is the employee who can access the Internet at work: what web sites can he visit? Obviously news web sites, but what else? Filtering programs are now available, but they are far from being efficient. According to the specialists, this is a growing market...

Another important consequence for our society affects work. Indeed networks improve work conditions but also create new kinds of jobs and new way of working (working from home for instance): networks bring a new freedom aspect to work. This is a great achievement that should stay for long, but once more in this context of total liberty our individual responsibility is important, and people working from home must not be "less efficient" than before...

### **Economic aspects**

Basically networks were supposed to bring a simple and **economical** solution to communication needs of companies. But nowadays, not only they save money, but also they make people earn money.

There are two main markets in the networks area: the market of framework and support for networks and the market of services provided over networks.

**The support and framework market** is now maybe exclusive: only big providers are likely to bring something or have a leading position. We speak about billions of dollars or euros. It is a very competing market where we try to gain and sell bytes. One of the most important stakes concern billing: providers would like to invoice the amount of transferred data, but with the current technologies it is quite difficult. This market is also the market where technical innovations are the most important ones, but also the place where it takes a long time to implement them. As it is hard to provide a better quality, this is actually a problem for providers, since they have to play on prices to charm customers.

The second most important market of networks is **the services market**. It is simply here a matter of providing the most profitable and useful services over

networks. As for many other areas, the creation of need in this area is very important. The range of services goes from services for professionals to services for individuals. Services for professionals usually concern what we call **information systems**. It is here a matter of finding the most rational mean to organize the traffic and use of information in a company. The solution uses a network and especially the service we can provide over it. Another category of services for professionals but rather for networks providers, is billing: it is indeed difficult to invoice the amount of transferred data because it is not easy to guess who is the sender of a given data packet. The last category of services concerns individuals. It is actually all the rest: online shopping, but also reading one's mail with one's mobile phone, detailed phone bills, GPS (Global Positioning System)... Most of these services already exist and (in particular those for mobile phones). However for few years, proximity services via the Internet have become common and important and they represent a very competing market. More and more users buy on the Internet through reverse auction web sites; it is a growing market.

In brief, networks form a huge market which is far from being closed, not only for networks providers, but also for services providers. But we can say it is also a very fragile market if we consider the stock market crisis of 2000, in addition to the DoS (Denial of Service) attacks towards important web sites. This market will get over a stage of its development when developing countries (especially Africa and south America) start entering telecommunication market: big companies will no longer have the possibility to develop themselves on these continents.

### The future of networks

One thing is sure: networks and all technologies adjacent to them have a nice future. Increasing of band width, more and more users (i.e. more and more customers)... all these elements are motivating companies to find innovating technical solutions. The goal is no longer to find a way to connect people together but to provide the best possible connexion and the best service at the cheapest price.

Competition on the market of networks is so important that only big companies are likely to lead, as they have enough money to invest in innovating technologies. However, networks represent an area open enough to allow other people to interfere and a lot of things are still to be discovered. Big and small companies are going to provide more and more services and use what bigger companies are offering. The market of services over networks is certainly the most promising one because it is the one that can evolve fast.

This sector is controled by two main factors: the growing number of users and the technological innovation that tends to connect everything (computers, mobile phones, cars, fridges...). Miniaturization and the emergence of portable devices (mobile phones and PDAs) are also other controlling factors: markets of embedded and real time computing and wireless is progressively opening up, and the goal is finally to provide this proximity service everyone dreams of.

Networks will spread to finally be interconnected into a hypercomplex structure and become bigger and faster (we are only at the very first step of high speed networks). In the same time we are building a wireless world, where everybody buys with one's mobile phone into one's car the latest CD we've just heard on the radio.



**printable format**



**introduction**

**topology**



---

Copyright © 2000-2002 **themmanualpage.org** - This site is submissive to the **terms** of the GNU **GPL** and **FDL** licences.