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Perspectives on Global Communications

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Abstract

Speech given at Session 2: World Communication: Where is Technology Leading Us? The European Commission's objective is to do our best in the European Community to support the paradigm shift from the Industrial Age to the Information Age. Mr. Eckert noted that in the past, this topic alone was the subject for a speech his. While those were interesting speeches, he focused, more or less, on the real nitty-gritty of deregulation and liberalization and how to bring those concepts into practice.

PERSPECTIVES OF GLOBAL COMMUNICATIONS

*Detlef Eckert**

The European Commission is particularly glad to have the opportunity to present our views on world communications and the places where technology will lead us. I would like to mention that, if an organization deserves to have a good reputation among lawyers, the European Commission is a good candidate. Through our current activities, Brussels is competing head-on with Washington on the highest density of lawyers per square meter. I hope that this is not the result of over-regulation, however. Commissioner Bangemann is always concerned that people understand that our main goal is deregulation, not regulation.

Having said this, our objective is to do our best in the European Community to support the paradigm shift from the Industrial Age to the Information Age. In the past, this topic alone was the subject for a speech like mine today. Those were interesting speeches, but now we have come, more or less, down to the real nitty-gritty of deregulation and liberalization to bring our concepts into practice. Nevertheless, it is important to examine the two basic principles behind this shift.

The first one is that this process towards the Information Age is driven by technology, in the first instance, and is translated into economic facts through market forces. Technology and market forces lead to an effect that information — more precisely, the generation of information, the storage of information, and the processing and transmission of information — costs less and less. You have to have this in mind when you are talking about a new communication society.

Markets and technologies drive societies and economies in a direction that nobody predicts nor decides beforehand. Therefore, many of the discussions we have in policy circles — to the effect of "will it serve our people? Will they like it? What will be the next market?" — are in fact irrelevant. These questions will

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be decided in the marketplace and through the forces in the marketplace, and not at round tables.

The second principle is that information and communication technologies have rendered distances more and more meaningless over time. Remember that not too long ago, traveling was the only means of conveying information. By the middle of the last century, the speed of the train was basically the highest speed with which information could travel. The telegraph changed this initially. Subsequently, we have added new technologies. More and more, physical presence — for instance, in meetings like this one — and physical mail will be replaced by e-mail. This results in a globalization where distances no longer play a role for many applications.

Against this background, three or four years ago there were several predictions about how these two forces would work. In particular, there was a lot of discussion about the merger of cable and telephone operators. Many were dreaming of building a new information grid spanning across the country, providing new services, such as video-on-demand. One of the famous projects in that sense was the Time Warner Orlando project. Basically, none of these dreams have come true yet.

What has come true is that so far the Internet is the driving force behind the global information society, but not behind the full-service network. Rewiring a country is extremely expensive and would require consumers to be willing to pay more money for these services. Instead, the Internet has become the driving force.

Why the Internet? Everyone talks about the Internet. Indeed, the number of people using the Internet has increased dramatically. For instance, the number of hosts rose from six million to over twelve million from 1995 to 1996, and currently, at sixteen million, the number of hosts doubles every year. Soon we will have 250–300 million Internet users, probably before the year 2000.

This development opens the way for new investments. For instance, more and more households in the United States are asking for a second residential telephone line — the reason being those famous ten to twenty-year-old kids sitting two, three, or four hours in front of the computer and blocking the telephone

line. Thus, parents are asking for a second line to have at least one line to communicate in the traditional way.

Especially in Europe, but also slowly in the United States, the number of ISDN lines is increasing. Between 1993 and 1995, the number of ISDN lines increased worldwide by sixty percent. Obviously, it is through applications that infrastructure develops, not vice-versa.

If we look more closely at the reasons for the success of the Internet as compared to the notion of a new, full-service infrastructure, we can see that the regulatory framework is just about to come into place. In particular, the new telecommunication environment is still not effective. Most countries all over the world have decided upon full liberalization beginning in 1998 and not earlier. The European Union will, with only a few exceptions, move as an entity into full liberalization of telecommunication by January 1, 1998. This means, for instance, offering any telecommunication service and, with the exception of using radio frequencies, building any infrastructure at no cost.

The European Commission has partly used the responsibilities derived from the Treaty to liberalize public monopolies. In addition, the Commission could win a political agreement for the Member States for full liberalization by January 1, 1998. By February, we could have achieved quite a comprehensive agreement within the World Telecommunications Organization: sixty-eight countries of the world have signed an agreement and will start liberalizing telecommunications from next year onward. Infrastructure competition may finally trigger those investments necessary to overcome some of the existing limitations in multimedia developments.

The Internet has also grown because it is largely unregulated. As soon as the Internet became popular, people immediately became nervous and wanted to regulate it. Fortunately, up to now, the Internet could withstand a nuclear attack, so it could withstand those attempts at regulation because by its global nature it seems to escape from such attempts. This does not mean that people are entirely free as to how they use the Internet. What is illegal off-line is also illegal on-line.

We are discussing the means to increase self-regulation, to develop filter technologies and other techniques with Member States and with our international partners. This does not mean

we are looking indifferently at the abuse of the Internet and saying: "This is unfortunately the problem we have." We would like to solve it, but not through strangling regulatory measures.

Another important factor is that investments in new networks have been insufficient, despite privatization. This is an interesting link to the discussion you heard this morning on capital markets. It is true that many telephone operators have been partly privatized, some even fully privatized. Even in liberalized countries, such as Sweden or Finland, telecommunications operators are not fully privatized. The United Kingdom is the only country in Europe which has a fully liberalized and privatized environment. The problem is that much of the capital raised did not go into additional investment, but simply was used to balance the books of heavily indebted public budgets or to bolster the pension funds of formerly overstaffed telecom operators. This is disappointing and, hopefully, with a second and third round of privatization, this money will be used eventually to build new infrastructures.

Another difficulty to overcome is that technologies are still not up to scratch. Technology still needs to be improved. It needs to become more user-friendly, cheaper, interoperable, and more reliable. How many times does a computer crash by comparison with the telephone? How difficult is it to install sophisticated software? How long does it take even a computer engineer to debug a computer with problems with new software? How long does it take to download a file from the Internet? Why is eighty to ninety percent of the language on the Internet English? This user-unfriendliness is still in the marketplace and needs to be resolved.

The European Commission is preparing a new research program — the so-called "Fifth Framework Program" — that will effectively start in 1999. This program has one major section on a "user-friendly information society." We will devote substantial resources to developing user-friendly technologies, such as search agents, filter technologies, and language devices. This is the result of three important research programs that we are currently running. We are spending US$1.25 billion per year supporting information and communication technologies and their applications.

Finally, acquiring content is a problem. That the infrastruc-

ture has not yet been built to the extent that we had expected is also due to consumer reluctance to pay for new services although the consumer of course wants to have great service and good products. You need to offer him value-added services and good content.

Compare two markets, digital television and mobile communications. In digital television, the market is difficult to develop. In Europe, there are several operators now trying to establish a service in the market, and it's extremely difficult for them. One big problem they have is content because it is expensive to acquire content. Traditionally, content is designed for one media only. That means, for instance, that you acquire the content for digital television, you distribute set-top boxes, and then you charge the consumer for the content. Maybe the future consists more in a platform-independent approach to content. That means digital content that can be channeled to the consumer on various platforms, such as the Internet, DVD, and cable.

In comparison, look at the mobile communications market. The mobile communications market in Europe is truly a success story. Currently, we have fifty million mobile subscribers, most of them now using digital technologies, such as GSM and DCS. This figure is expected to rise up to ninety-five million by the year 2000. We will see an average annual growth of twenty-five percent, and prices will be reduced annually by three to four percent for this market. In other words, in the year 2000, one out of five Europeans will communicate with a mobile phone.

The content in mobile communication basically is self-content, self-publishing, and communicating. This is something which is also a strength of the Internet — it allows people to create their own content, to become a publisher. This means we believe that the consumer is not a single-minded couch potato who only loves his television environment and passively getting information. Already today the consumer, faced with thirty or more television channels, zaps from one program to the other. I am convinced that, if you provide him with an interesting and useful interface, he will also use the Internet and Internet-like businesses and services.

In that sense, we have a relatively positive view on the development of new markets for digital services like the Internet. I am not limiting myself to the Internet as it is today, but the In-

ternet model as a guiding principle. It must be cheap, it must be user-friendly, it must have value for money, and it must offer choice.

The Internet is good, but not perfect. I would only like to quote two problems we are now facing that the European Commission is trying to combat. One is limited bandwidth. This especially prevents the exchange of attractive video-enriched content. Once the problem of bandwidth is overcome, there will hardly be any reason left to distinguish television from the Internet or from Internet-like services.

The other problem is security and authentication, i.e., ensuring confidentiality and making sure that documents are not changed and can effectively be accessed by the reader. Both solutions are or will be based largely on cryptography. This will be necessary for the development of electronic commerce.

What lessons could we learn from the experience we have had over the last four years? The first lesson is that we are faced with a time paradox, in the sense that, although technologies are moving fast, many developments nevertheless take time. It will take a while until the PC or PC-like sets will have replaced the television or both have converged into a new interface. Quite some time passed before the calculator became a PC and a PC became a multimedia tool. Again, technology is moving fast, people are moving slowly, and regulation and institutions are not moving very fast at all.

We cannot wait, however, because international competition is mounting rapidly. So in order in ten years' time to have developed a new Internet industry, we have to start now. This is a message we are trying to pass urgently, *inter alia*, to the Member States. In the United States alone, every year a significant number of new companies are being listed on the NASDAQ as doing 100% Internet business. Netscape is one of the famous examples, but there are others also. A similar development is not taking place in Europe because many of our people think we have to wait until the business develops. This is wrong. Creating markets is a difficult exercise and sometimes you have to wait ten years until the market really matures. Once you are "wired" in, it is difficult for others to pick up. Thus, the first lesson is not to under-estimate the time paradox as it can be very dangerous. The fact that it may take ten to fifteen years to replace analog

television with digital television should not prevent us from doing the business right now.

A second lesson concerns the role of competition policy. When the market changes, more and more companies seek to develop new business models. They also seek alliances and move into vertical integration. Competition policy is critical for these developments. The European Commission, in its role as the European competition authority, has to study the new environment. In general, European competition policy is extremely important. Even the case of McDonnell Douglas/Boeing is something which the European Commission has to look at. Our policy needs to safeguard competition and to support the market process.

Finally, I would like to draw your attention to the new global rules, because business has not only become global, but is performed on electronic networks without borders. A "globally recognized framework" is needed to enable electronic business to take off. What would be the situation of a consumer in the ideal world of electronic commerce? He would enter an open electronic network — call it the Internet — that should not be where the communication partner is located. He needs an assurance that the owner of the website or the offer on this site has certain legal liabilities. He may need someone that says, "this is an authorized person or institution." It doesn't matter where he places his orders or where they will be received: New Zealand, Australia, Brazil, the United Kingdom, or the United States. Therefore, international law and international cooperation in regulation will mean a lot in the future.

Take for instance the example of a "digital signature," which is currently something to be resolved. It means, in particular, to create a European framework for digital signature. A digital signature allows you to detect any alteration of a digitally transmitted text. It also allows you to identify and authenticate people. This is a prerequisite for electronic commerce. If electronic commerce is to emerge globally, we need *inter alia* an international framework for digital signatures. A European framework alone is not sufficient. Clearly, certificates need to be recognized on an international level. We also need a common understanding about the legal status of a digital signature. This cannot be answered in a national or European context alone.

Perhaps, this could be one of the issues or subjects an organization like the IBA could look at more closely.

Let me summarize the message I have tried to pass on to you. We are looking at applications of tomorrow which we do not know about today. We may have some feelings, some ideas, but not the answer. However, what we know is that we should not apply the rules of yesterday, as I have tried to explain to you with reference to the Internet.

We need to enter the virtual circle of increasing computer power, develop attractive applications, and lower communication costs which reinforce each other. If we manage to get into this "info-spiral," then we are on the right track. It will take time to develop appropriate business models, but most likely many of them will be global and will only be sustainable on a global level. Therefore, we are convinced that more and more global rules — even legally binding global rules — will be necessary. Hopefully, I have addressed this particular topic to the right audience today.