Session 2: World Communication: Where is Technology Leading Us?: Questions and Answers Moderated by Stewart D. White

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MR. BANKI: I thought it would be interesting to hear Dr. Eckert or Dr. Nagel comment on Steve Weiswasser's comments on the future of the Internet and its commercial prospects. Would you like to do that?

DR. NAGEL: Yes. I'd just like to address one comment, that people don't want interactivity, if I can paraphrase part of what he said. It's quite clear, it seems to me, that people do want interactivity. But, they don't want it necessarily while watching TV.

You know, with a paradigm shift, activities reflecting the old paradigms don't always go away. When movies came out, people didn't stop going to plays, and when TV came out, they didn't stop going to movies, and when you could rent videocassettes in stores, they didn't stop going to movie theaters.

I think that customers will increasingly, as they are showing all evidence of doing, want interactivity, but they will want it in the right form. The telecommunications industry, a couple of years ago, basically just got it wrong. They thought that people wanted interactivity while watching TV, and what they really wanted was interactivity in accessing services, information, knowledge, and the kinds of things that Richard Susskind was talking about, off the World Wide Web or whatever it evolves to.

Consider the market in the United States today: 40% of the people have PCs; about half of those, we think, have Internet access, or will shortly have Internet access. Those figures are both growing quite rapidly. PCs are still growing at something like 15–20% per year, although there is a large replacement market there. The number of people who have modems and are connecting to the Internet is growing at probably at least 50% a year and will do so through the end of this decade. So something like half the people in the United States, certainly in the next ten years, will be, without question, connected to the Internet and will be interacting with it. I suspect a significant number of them will also be watching digital TV by then.

DR. ECKERT: The question is to what extent interactivity
can be made user-friendly. Communicating people create content themselves. There will also be a market for video-enhanced interactivity, provided it is cheap and it can be accessed easily.

The next question is whether television content, as provided, currently, in a traditional way, and delivered to 99% of the households, will be provided in an interactive form to 99% of the households? Maybe this is what Steve Weiswasser is questioning. My opinion is — and here I share Dr. Susskind's assessment — that we will see a convergence of the two means to deliver information and entertainment, i.e. television and Internet.

My prediction is based on the assumption that we should not limit our imagination to the limits of current technologies, which are for instance limited in bandwidth and are not secure. Let us start with computers or digital devices that will have full connectivity and 100 to 1,000 times of computer power of today. This will bring the opportunity of new services combining television and Internet — as I said before.

Digital TV services are now developing in Europe and in North America. They are partly delivered via satellites and partly through cable. Digital television will probably gain a lot when being combined with interactive services because services have one big problem: content. Content can be extremely expensive, risky to acquire, and therefore a multi-numbered channel TV service needs additional value-added services in order to succeed, to convince people to pay more.

MR. WEISWASSER: Let me just say that we can argue about this or we can wait to see who's right, and hope we're all here once this is all figured out. I would not want to be perceived as ideologically doctrinaire on this subject. I have just a few observations.

I think there is evidence, obviously, of growth in all these markets, although that evidence is not always as clear as might have been suggested. I think a lot of people have PCs and a lot of people are on the Internet, but you can't extrapolate from the numbers today and assume continued growth at the same rate. I think there is going to be some resistance to continued growth beyond a certain point.

You have to ask what people are using those services and those devices for now. I think you would find that overwhelmingly they are being used for e-mail and chat, which is perfectly
fine. But, that is, I think, clearly a market outside of what I'm interested in and not in my judgment a particularly great advancement.

Ultimately, the really critical question is commerce, the capacity for commercial activities to support a lot of content development. I may be unclear about it, I may be skeptical about it, but the fact is my company's chief long-term focus will be to build interactive services and tying them into television. All I'm trying to suggest is that we've been around this path at least once before, with respect to broadband services. That didn't quite pan out the way we had hoped. I believe we could have made plausible cases from the research — you know, people were saying they were interested in this two to three to five years ago — but it didn't take off. So I am trying to be cautious and cautionary. The Internet may not turn out to be quite the answer we would hope.

MR. WHITE: Just to pick up on this content issue, because that is absolutely vital, particularly as we go into this digital multichannel era, I'd like to ask Steve Weiswasser where he thinks the bulk of the programming will come from? And, to supplement that, how realistic is it, for example in Europe, to have a program quota for programs set up by a country requiring that fifty percent of the programming be based in Europe? Where is that going to come from in multichannel?

MR. WEISWASSER: Again, I'd love to answer this question for the United States. First of all, a lot of the content is going to come from the same sources that provide it now.

In the United States, the greatest weakness of the television system, in my judgment, is in the creation of content that is local and meaningful to people in their lives. I believe that in this country the great opportunity for television will come from the creation of new ways to think about local television as opposed to the national networks.

We have 150 networks — some national networks, cable and broadcast networks. It's going to be very hard to think of new ones or new things for the existing ones to do. But my guess is that almost everybody in this room who watches American television hates the news, and that's because many of you think you know as much as you need to know about murders and fires and the like, and want news content to be richer and more meaning-
ful in your lives. That is where there may be an interesting tie between what goes on now on the Internet and what you might be able to do in television. There is an enormous opportunity to make the news more meaningful in people’s lives.

As an American, as somebody who has been in television for over ten years, for the life of me I do not understand the notion of quotas in content. I do not understand the notion of stopping content at a nation’s borders. The essential notions of the free flow of ideas, of competition for ideas, of competition for quality, and of competition among creative people, in my judgment, say that is exactly the wrong way to go. Restraining content whether it’s in the United States, with the Congress of the United States requiring broadcasters to put little rating symbols on their programs, or it’s the European countries trying to measure how much content of various kinds is wrong. These efforts must pass, because the power of the marketplace will not permit them to succeed.

MR. BANKI: Do you have a comment on the situation in Europe?

DR. ECKERT: I am not opposed to the sobering or analytical approach of Mr. Weiswasser. What I’m saying is that technologies in the future will allow much easier interactivity and content provision than today. I am looking at a completely new way of producing and delivering content. Look how even today multimedia content is produced and put on CD-ROMs, it’s a shame. Too often CD-ROM producers just dump the content on the CD-ROMs. They do not exploit the current technology enough, and in addition the current technology has still visible limitations. The future, starting with use of the DVD, will allow a much more sophisticated and innovative way to present and to deliver content. So, in my view, we can be optimistic that technology and innovators, in particular new companies, start-ups — not necessarily traditional — will come up with new ideas which we are not thinking of currently.

Regarding the Television Directive, I don’t know to what extent this audience is familiar with the Directive. In first instance, it assures a common European market for television. It also tries to safeguard some of the public broadcasting ideas. It has the notion that Europe is in principle open to television programs
We are at the moment working in DG XIII on a Green Paper on convergence, which will show — or will try to show — how information technologies, communications, television, and publishing are creating and merging into a two to three trillion dollar market world-wide. It is important that public broadcasters realize that it is not in preventing competition but in creating new services where the future lies.

QUESTION: We have heard in this discussion a lot about the two ends, I would say, of technology transactions: on the one hand, the consequences the communication revolution is having for the manufacturers and suppliers of goods and services, and on the other hand the effects it has on the customers, purchasers, or clients of these goods and services.

My question to the panel would be: what will be the consequences for the intermediaries, i.e., distributors, traders, and retailers? If I may take up the example of television here, which the panelists were discussing in the last minutes, essentially what you were describing as the need for the television stations, that the unscrupulous could take movies and put them on the Internet or put them on some sort of a television channel and go directly to the consumers without the networks or whoever as an interface. This could be true for essentially all types of television programs, and it also could be true for all types of information that is today traded.

The question is: what role does that leave — I used the example of television to highlight it — but what role does that leave for broadcasting stations as they operate right now? I would like to address the same question. I'm sure it also applies to any type of written information, to newspapers, or to city guides — I know Microsoft is trying to provide city guides?

The answer that I would describe, that I have found so far, would be: Wouldn't they have to become now guides in the Information Age? That leads back to what Professor Susskind did ask about their selection of the information. Yes, you're right, they may be able to identify my interest by using a couple of catch words. On the other hand, all of us are busy professionals, and the question is how much time do I have to go through the Internet, to look at all the Web sites, to take my time to identify
the piece of information that I would like to have? Therefore, would I not in the future need new types of services that will replace those who today make their choices on behalf of mine?

MR. WEISWASSER: Very quickly, I think that most of the traditional media have enjoyed protections in their national structures that have basically protected their ability to profit. We are entering an age in which that will not continue. The reality is that no medium, whether it’s a television station or a newspaper, is going to succeed or continue because of a protective structure. They will survive only because they have found a way to be relevant to their audiences.

Local television stations in the United States — notwithstanding my brash, glib remark with respect to the quality of their news — are still the places people in this country primarily go to get news. As long as that’s true, they will continue also to have Hollywood movies to offer and so on. The question will be how long that will continue when they have to learn to compete in the digital age with those who offer multiple services when they no longer have a structural preference.

PROFESSOR SUSSKIND: Well said.

DR. NAGEL: I think that some of the people in the category of “middlemen” will disappear, and the ones that will remain and succeed are the ones that will modify their behavior to take advantage of the new market conditions. A good example of that is the movie industry. When the video rental businesses began to grow, movie theaters began to change — they didn’t disappear, but they changed. Today, a good theater is increasingly difficult to make a go of economically, and what you see are megacomplexes and other approaches to aggregating eyeballs, in this case spatially, to watch movies.

So, some of the middle people will be disintermediated. If video-on-demand had been successful — and it may be yet — I have no doubt that we would have begun to see an impact on the video rental business, for example. So, the people in the middle do have to figure out where the market is going and have to adapt their business models to accommodate that or they will go away.

PROFESSOR SUSSKIND: I think the future in this context can appear rather grim. This is actually part of that great debate over “disintermediation” which focuses precisely on the middle-
men. Those who are intermediaries, and the substance of their work can be classified as being intermediaries in the supply of information or knowledge, will have really two choices. On the one hand, they will not be able to exist as they currently are structured. On the other hand, they will have to get into the business of packaging or repackaging their expertise and experience and knowledge in new ways.

One fine example of this is that of routine, repetitive legal work. It is precisely because that is a form of intermediary service that I think it lies open to being disintermediated! Good lawyers have to, if they don’t want to get out of the business that they’re in, seek out those who actually help with the commoditizing and the packaging of information.

The questioner was right to the extent that a big industry will build up in actually helping people gain access to vast volumes of information. It’s not such a simple exercise to do that using the current technologies or processes. What is important for the future is to have agents and filters and so forth.

**QUESTION:** What I was struck by in all these presentations, particularly Professor Susskind’s, is that the trend we’ve seen over the last ten years amongst lawyers we are seeing reinforced by the Information Age. For the lawyers to survive and prosper with this trend, they are going to learn significantly more about their clients’ business; they’re going to have to learn as much, if not more, about the content and their clients. I think people like Richard Susskind and others who have an intimate knowledge of computer law, the Internet, and so on, are models for that new era of lawyering, if you like. So, I’m afraid we’re not going to have to be just good lawyers, but we are going to have to be good technologists as well if we want to grow with this business.

My question is rather more esoteric, but this is a relatively high level seminar. I was struck by the fact that nobody has mentioned the labor consequences and the social consequences of the Information Age, where this is leading us.

I had dinner with somebody in the cable industry recently who said she had been very impressed by a market survey that she had just read, a social survey, which had shown that the amount of time people were spending in front of their screens
was actually depressing their social skills and they were becoming, or were liable to become, antisocial and depressed. Well, that's a very provocative thought. I'd be interested in what the panel thinks and whether that's really true, whether the communication revolution is going to make us better communicators or actually worse communicators in some respects.

My other comment is on the employment consequences. When voice or processing technology is mentioned in our office, we usually talk about it in hushed tones in case our secretaries get to hear about it. I think it is going to cause a huge change in the way we work, particularly in the office environment. Again, I'd be interested in any observations on this issue.

DR. NAGEL: I just have one observation. This notion that the technology has this sort of dehumanizing or desocialization aspect is something that has come up in the context of education. Apple, which derives something like half of its revenues from the education market, was particularly interested in this issue. In fact, they did a fair amount of research on it.

Counter-intuitively, at least in the education setting we studied, the effects were rather the opposite. That is, the technology seemed to facilitate children getting together and actually learning together in a sort of community fashion.

In fact, a lot of the research that is taking place right now in the context of distance learning is exploiting that idea, or at least examining it in a fairly rigorous way, by looking at community learning, companion coaching, and related things of that sort. It seems that technology can, in some circumstances, have a facilitative effect rather than an attenuative effect on socialization.

MR. BANKI: At least in educational circles.

PROFESSOR SUSSKIND: The first question is very important. Certainly, in the United Kingdom, I have for long said that the social and ethical implications of information technology, and technology generally, are poorly understood. Actually, we see very little attention paid to this, although it's true that there are a few computer scientists that have dabbled.

I think that there might be an important analogy in the early 1980s when there was a major government study group set up in 1981 to look at the moral dimensions of a whole set of developments, from test-tube babies onward. It set a level of de-
bate and a level of public interest in the topic which would be appropriate today for technology.

The second question is an interesting one. I think it has to be said that, just as lawyers will fundamentally change their work in the coming years, so also shall the secretaries. I actually believe that their role will change fundamentally from being that of, essentially, typists and text creators, to those who are involved in a paralegal capacity that will do anything from setting up databases to working with a spreadsheet. Actually, IT will give rise to many more opportunities for secretaries, and actually create power-secretaries and more-productive secretaries.

I think the ratios will change, but those to whom I speak are actually interested in the future will welcome the new technologies and the changes.

QUESTION: I’m a lawyer and I run a venture capital fund for multimedia content. My concern really is that so much of the debate today seems to have gone off on the incorrect tangent of trying to treat the Internet as a mass medium. It’s not necessarily a mass medium. A much better paradigm for this thing is the magazine publishing business, not the television business.

The mass medium in the United States is defined as one which has over sixty-five million regular users daily. The Internet is a very long way from that, and probably will never attain that. But, that doesn’t mean that there isn’t an enormous business, and a very important business, in following the magazine model. A magazine may only have 10,000 subscribers, but if the subscription level is high enough, it can be perfectly financially viable.

MR. BANKI: Would anyone like to respond to that?

DR. ECKERT: I would like to make, briefly, a comment on the social and economic implications of the information society. We are quite often challenged by our constituency, and in particular by the European Parliament. They are concerned that we are pushing technology and unleashing market forces that nobody can control afterwards, with severe social consequences.

It is important to take into account their concerns when formulating a policy. Although being in principle positive, we know that the new technologies will have social consequences. There will be losers and winners. However, information and
communication technologies have some advantages, have some characteristics, which make a significant difference in the way the industrial society moves into the information society compared to the move from an agricultural to an industrial society, namely less critical in terms of negative social consequences. I give you two or three examples.

The first one is that this technology is in principle environmentally friendly. Electronic communications replace physical movement which could help monitor and control pollution.

Secondly, it is not a technology that fosters exclusively big, huge companies. Small and medium companies have more than a role to play; they may be better suited to take advantage. Even individuals can set up Web sites today and become publishers.

A third thing is gender. Often technology discriminates between men and women. It may be true that in computer use we still see a slight tendency that boys have better access to computers than girls, but to a much lesser extent than with other means or toys. Our examination of the Internet has shown that there does not exist a significant difference between genders in the use of the Internet.

Finally, although English has become the lingua franca of communications and Internet, more and more local content providers, regions, and communities appear on the Internet with their own language. While, on one side, we have globalization and a certain uniformization of language used for communication, we see more cultural diversity and creation of new content.

There is one important prerequisite for a positive development of the information society. It is crucial to make sure that people always have a choice. For instance, currently in school, children have only the choice to listen to the teacher and to take what he says. Using a textbook, children are forced to learn in the classical way, i.e. in a linear way. In the future, people should have the choice to either follow this traditional model or to switch to the interactive, more visualized model. It is necessary that people have a variety of means to obtain information and not be too dependent on one single source of information.

QUESTION: I have a question for Richard Susskind. Clearly, clients care about the transaction costs associated with
any service. Are you predicting an age of Virgin law, Coca-Cola law, and Nike law?

PROFESSOR SUSSKIND: Very much so, particularly in the middle ground, the middle band. It seems to me if you accept the model for commoditizing, that there will be some brands associated with them, sort of branded legal products. I think that will give clients confidence. I anticipate that very much.