The Effects of Telecommunications on Business

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Abstract

Speech given at Session 2: World Communication: Where is Technology Leading Us? In many ways it does not make much sense if, say, you are setting up a business to go to one source for your legal guidance, another source for your accounting guidance, and another source for your financial advice. It will all come together, and lawyers may indeed be the people who bring that together into multidisciplinary services, bringing together the information that people require in their real-world circumstances. We will no longer package or present our guidance in the traditional legal categories, but we will aim them toward the market and we will work with other professions, combining their expertise as well. If you are a customer or a client of these kinds of information services, this is a great improvement. You no longer have to go to many individuals to receive guidance, and it is there in a form that is easy to digest.

THE EFFECTS OF TELECOMMUNICATIONS ON BUSINESS

Richard Susskind

Most of you sitting here, being lawyers, are wondering how this telecommunications revolution may affect your own business, and that's what I'm here to talk to you about for the next few minutes.

I would like to tell you, in this context, a story about Einstein, who was giving a lecture tour in England many years ago. He got rather friendly with the chauffeur who used to take him to the various lectures that he was giving. One day, the chauffeur said to him, "Professor Einstein, you really are a remarkable man. What I find particularly amazing is the way in which you can break down your complex theories into very simple terms such that even I can understand them. In fact, I've heard your talk so many times that I think I, myself, could give it."

Einstein pondered over this for a second or so, then he said:

> Well, it's funny you mention that. I'm getting rather bored of giving the same talk, so I wonder if we might try a small experiment. We'll reverse roles. So just before we arrive at the lecture theater I'll change into your clothes and I'll stand at the back of the hall dressed as a chauffeur as you would normally do. You get into my clothes and stand at the front of the hall and give the talk as I would.

The chauffeur thought this was a marvelous idea. When they arrived at the lecture theater, Einstein got into the chauffeur's uniform and stood at the back of the hall. The chauffeur put on Einstein's clothes, stood out in front of the crowd, and gave a marvelous presentation. The crowd was tremendously impressed.

What they hadn't banked on was "question time," when a terribly eminent U.K. physicist stood up and asked an impossibly difficult question. The chauffeur's eyes glazed over, but then they lit up. He said, "that question is so easy, I'm going to ask my chauffeur at the back of the hall to answer it."

So, similarly, ladies and gentlemen, if anyone has any partic-

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ularly difficult questions, I'm going to throw them back among the chauffeurs in the audience.

Let me start where I like to start talks on computers to lawyers, and that is the story of the power drill. It is said that Black & Decker, one of the world's leading manufacturers of power drills, take their new executives off on a course. They sit them in a room. They pick up a slide and they say to these new executives, "this is what we sell, isn't it?" The executives look rather hesitatingly around at one another, but eventually they concede, "yes, yes, that is what we sell." The trainers say, "that's not what we sell. This is what we sell." And then they present a slide of a hole in a wall!

There's a vital point here for anyone in the legal profession. Just as the trainers went on to say "it's your job to find ever-more-competitive, imaginative, and creative ways of giving the customers what they want, which is the hole in the wall" — then, similarly, we, as lawyers, when looking to our future, I think, have to refocus our attention, focus away from perhaps streamlining and optimizing what we already do and look more fundamentally at what it is the client wants and whether or not information technology may give rise to entirely new ways of delivering legal service. It is along that line that I would like to pursue my discussion today.

Much of what I say, I think, is consistent with some of the previous speakers, while some of it is rather inconsistent. The future is a rather strange thing, of course. When I was originally writing my book, *The Future of Law*, I used to think that the future was a bit like a misty day — that is to say, in a sense the future was out there, preexisting, and it was just a question of the mist lifting and all would become apparent. There was some sense in which I felt it was there; it was just not quite clear yet what its content might be.

But, I now see it more as a lump of clay. By that I mean there may within the lump of clay be a perfect sculpture, but there may actually be nothing at all; it may be a hopeless blob. But the crucial thing is that it is up to us to fashion the clay.

Similarly, when looking to the future of lawyers, and the future of technology generally, it is not that there is any definite future; it is up to those of us who are involved in either shaping our future or involved in taking technology ahead to shape that

future. So although there may be disagreements in the panel this afternoon, there are no right answers.

In that context the next five to ten years, for me, look a little like this. In the first instance, I think there is going to be, of course, a major impact from global communications. We have heard so much about that. I summarize it simply by saying that we will have, at negligible transmission costs, instantaneous transmission of almost infinite amounts of material.

So from the point of view of being a lawyer looking ten years ahead, forget about all the technical limitations. In a sense, I do not think telecommunications are going to pose any restriction for the information we want to distribute — whether that be text, video, sound, or whatever. The telecommunications infrastructure that is going to be put in place will support almost any conceivable form of legal service in the future.

Secondly, I also think that home computing and television are going to converge.

Just now when we think of the home — and I have to say my speech is mainly about the homes in the United Kingdom, where you have 99.8% of homes with televisions, and already over a third of households with their own personal computer. On that model, in these homes, there are really two windows on the world. There is the television, which is the source of entertainment, very broadly speaking; and there is the personal computer, which is the source of information, and to some extent a tool for business as well.

These two windows on the world, I argue, will converge, so that your one window on the world — which will probably be a wall screen rather than a monitor on one's desk — will actually provide access both to information on the one hand and to entertainment on the other. So I think these two will come together.

Already, in the United Kingdom — and I think this is rather contrary to the position in the United States — eighteen million people every week, approximately a third of the population, access what is known as "Teletext." That is a terribly primitive text-based information system that hides behind or lies behind the television that ninety-eight percent of the homes are using. One can flick a switch, in practice largely for sports results, and you can actually browse through text. So, in a sense, in the United

Kingdom, people are already used to the idea of looking for information through the window through which they normally focus on entertainment. But these will come together, so the natural place to turn to — and this is one of the themes I will come to in a second — will be this screen, this window on the world.

Thirdly, we will all be talking to our machines. Voice recognition is coming on by leaps and bounds. Within ten years, rather than pressing buttons or remote control systems, we will be directing our machine through its various paces by speaking to it. And, eventually, through limited natural language processing, we will actually be speaking to our computers as we would do with one another. No longer will the world of technology involve the manipulation of mice and keyboards, with which people are still uncomfortable and fearful of, but, actually, will be a question of chatting to the machine that will be your window on the world.

Here is the premise that I think is perhaps contrary to what Steve Weiswasser[1] was saying. I believe, and quite strongly — this is the future that I want to help create — that the World Wide Web, that part of the Internet that provides access to information, will over the next five to ten years, become people's natural source, their first port of call, for information, for guidance, on almost any conceivable matter. That is a fundamental premise of what I have to say today.

Whether it be the conduct of your banking business, or whether or not you want some medical guidance, or whether or not it is home shopping — the whole range of activities that one hears being speculated about in relation to the use of technology — I believe the first port of call, the easiest port of call, will be the wall screen, the window on the world, the machine that one can talk to quite naturally and say "I'd like to buy a bicycle; I'd like to do some shopping; I'd like to find out my bank balance;" and so forth.

That is one of the premises I am putting before you, and, clearly, it is one that is up for discussion. But the discussion, in many ways, should be "is it desirable?" rather than "is it possible?" We know it is possible, although there are many of us are trying to drive towards that goal.

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1. *See* Stephen A. Weiswasser, *Role of Technology in Communications*, 21 FORDHAM INT'L L.J. 439 (1997).

My premise, then, is that one's natural first port of call for almost any form of information and guidance in our world will be this thing called the World Wide Web. There is very strong evidence, certainly in the U.K. and Europe, to support that premise.

At that same time, my fifth likelihood relates to what I call the "technology lag." Many of you who are involved with information technology ("IT") and use technology regularly, I am sure, will not say, "it's great since we've been using IT. I have hardly any paper on my desk or I've got very little reading to do; I've caught up." Quite the contrary, most of us find that we are actually, more than ever before, overloaded by information. It is often said that the so-called "information revolution" has surely given rise to more, rather than less, information, to information overload, in fact, to a situation that was considerably worse than pre-IT.

I think there is a conceptual problem here, and that is the misconception that we are in the IT-based information society. Our first speaker[2] used the term "paradigm shift." In our society, there will indeed be a shift from, essentially, the print-based industrial society into the information-based or the IT-based information society. But I do not think that shift has happened yet, and it will probably take some twenty years to happen. It will happen only in a full-scale way when the lag between what I call knowledge processing and data processing is closed. Let me explain that.

We are great at using information technology today to create information, to reproduce information, to disseminate information. No one questions about that. We have got that down to a fine art. What we are hopeless at is using technology to get only the information we need. Every lawyer sitting here will know that problem. When you have a legal research task, or indeed any task which involves sifting through information, ideally you want to get all the information you need, but only the information you need. Just now technology is not very good at helping.

It is only once a variety of techniques are developed, and some of them have been hinted at and mentioned in passing

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2. Detlef Eckert, *Perspectives of Global Communications*, 21 FORDHAM INT'L L.J. 422 (1997).

today — intelligent agents, expert systems, artificial intelligence, lots of buzzwords that we will be able to get only the information we need. The theory of this is important: Technology is gradually going to help us manage the information; it's going to help us get at all but only the information we need.

Some of you have heard of the notion of the "Daily Me," which is a personalized newspaper. The idea there is that you indicate to an electronic newspaper service what subjects you are interested in. So, personally, I have no interest in soccer, but I'm very interested in track athletics. Unfortunately, if you look in in any U.K. newspaper, there is infinite coverage of soccer but there is hardly anything about athletics. In the future, my information service provider will create a personalized newspaper every day for me which will have lots of coverage of athletics but no coverage at all of soccer. And so too with all my professional interests and my social interests too, I will indicate what I am interested in, and all but only that information will come to me because the information provider will have a profile of my interests.

I know many of you will say that it is dreadful because one of the great things about newspapers is they expose you to random stories and topics that you would not otherwise have known you were interested in. You can also say to such a provider, "Please give me two pages of random news every day as well." There are many ways around that problem.

The point is that you can see a glimpse there — and I have only given one glimpse — of technology helping bring information to you rather than you having to go to 650,000 web sites and say "which one is relevant for me?" We are going to see this shift over the next twenty years, a shift whereby information starts coming to us.

In that context, in a world in which we have this global telecommunications infrastructure, where information is flowing, not like water dripping from a drinking straw today but as though being fired through a main pipe, where we have infinite amounts of information flowing through at negligible cost, where we are talking to our machines, where the first port of call, the natural port of call, for guidance on almost any matter of all will be the World Wide Web or the Internet or its successor, and where information will gradually become more focused

as it comes towards us, in that context, what I put to you as lawyers in the room is "will legal life ever be the same again?" My answer to that is "probably not." In fact — I vary the adverb according to the audience — I passionately feel the answer is "definitely not." It will not be, in my view, that as all other forms of information — and, indeed, as many other professions too are providing information on this global information infrastructure — that lawyers can hope to continue providing service in the time-honored way.

My theory is this: legal guidance, legal expertise, and legal experience will be available across the Internet alongside all sorts of other information. That is just the natural way by which one will gradually seek legal guidance.

For those of you who are skeptical — and this is the crucial point — it is already happening. I can take you to web sites today where legal services are being provided — and it is not, interestingly, just by lawyers. It is by accountants, it is by consultants, and it is by business managers too. Already, a market is being created for advice on regulation, advice on legislation, and advice on case law. So this is the world we are moving into, and it is a world of considerable challenges to the legal profession.

To add a little flesh to the bones, I want to give you three short case studies.

My first case study involves will drafting on the Internet. In the United Kingdom already you can get your will drafted across the Internet. A system asks a series of questions; the document comes through. It is intuitively obvious that this should be possible. Those of you who do will drafting for a living will no doubt say "in complex cases it won't work." There is a debate we could have about that. The point I am making to you right now is that this is the kind of service that is already up and running, whatever you might think of it.

My second case study involves a car crash my wife had because I think, for me, it was in many ways a defining moment. My wife had a rather complicated car crash, complicated in the set of facts involved, the evidential questions, and so forth. I had the feeling that this was going to be a difficult legal issue. I thought at that stage "maybe I should seek legal advice," but I suppose, like most clients, the thought of paying several hundreds of pounds for some preliminary legal guidance rather put

me off, so I thought I would wait until it went badly wrong before I actually sought guidance.

Then I recalled that I have a brother who does this kind of work. I called him up and I said, "Alan, Michelle has been in a serious accident and I really don't know what the legal position is." His response was fascinating and, in a sense, set an agenda in my own mind for information technology.

First of all, he did not say to me "go and read this piece of legislation," he did not say, "I've got a great case for you read on this," or "there's an interesting article in such and such a journal." He actually said, "Richard, there are only four or five things you can do here. Remember to tell the insurance company this, do not do this, and remember to do that." He just gave me a few legal points, "golden legal nuggets." The way I express this usually irritates lawyers — he gave me the kind of guidance that lawyers will give their friends and family but not their clients.

There are good and bad reasons that we package our guidance in more formal ways. The crucial point is that it is sometimes possible to package guidance in a punchier form, in the form of "there are really only five or six things one really needs to worry about here." That in many ways is going to be, I think, the ethos of law in the Information Society.

One of my claims is that, where in the past many people would have gone without any legal guidance at all, in the future they will come home and they will "say" to their television, "I need some help, I've had a car crash," and twenty options will come up. They will say, "I'd like some guidance from firm X." It might cost £5 and will give four or five pointers. It will orientate users. It will move legal guidance, if I can put it this way, earlier in the life cycle of social and domestic affairs, as well as business affairs. And that is absolutely vital — that, as lawyers, we will actually provide our services more proactively than reactively.

Let me, in my third case study, give you a live example of how all of this might unpack in practice. I was approached several years ago by the head of legal services of one of the U.K.'s largest companies. She said to me that they employ 4,500 new employees every year and they had just done an audit of their employment contracts, and it turned out that ninety-five percent of them were defective. I said, "Well, how can this be? Do you

not have an employment specialist in-house?" She said, "Yes, but he spends most of his time in industrial tribunals," which seemed to me to be predictable in the circumstances.

I was thinking, in traditional avaricious legal fashion, that she was going to say, "we'd like you to draft 4,500 new employment contracts a year." But in fact what she said was, "we have no intention of anyone out-of-house drafting these contracts, but what we would like you to do is generate an automated document assembly system."

I said, "Hang on a second. Who does all of this for you now?"

She said, "The personnel department."

I said, "Well, what's the problem?"

She said, "Well, we have given them three large files of legal guidance on the standard form contracts."

I found out that what actually happened was that the personnel officer would just take whatever contract happened to be on the top of the pile at the time, put it in an envelope, and send it off. With that model, a five percent success rate seemed to me to be rather impressive.

In any event, she said, "what we want is an automatic document assembly system," and it began to take shape in my own mind. What she had in mind was this: the personnel officers, rather than actually having to make decisions and read through the files themselves, would be asked a series of questions — for example, "is it a full-time employee or a part-time employee? Working in the United Kingdom or outside the United Kingdom?" — and these responses would trigger appropriate paragraphs, insert them into the document, and delete inappropriate paragraphs, sentences, and words.

The task for the lawyer setting up the system — the task that I call "legal information engineering" — would be to create a set of templates and a set of rules, like a decision tree, which would indicate when and in what circumstances paragraphs should be inserted or deleted and so forth. In fact, software has existed to do that for over twenty years now in the United States, so it is not technically challenging.

The fundamental point in all of this was that it involves a major shift in perspective. Let us go back to the hole in the wall and the drill again. The hole in the wall is that this client wants

more reliable employment contracts. Now, I was thinking of polishing the drill at first; I've made the drill a bit faster, a bit lighter, and so forth. But she was saying, "we don't want you to draft in the traditional way. There's another way you can deliver this service." She was asking for an information service. That was her hole in the wall.

That, I think, in many ways, is what we are going to see more of in the future. We will be asked to model and systematize our knowledge and make it generally available, perhaps on a one-to-one basis, for clients, so that they can re-use it; or perhaps we will make it workable across the global information infrastructure as well.

Let me conclude by broadening this out a bit. I have given just three case studies to give you a flavor of what might be possible.

The fundamental distinction in technology — no matter what industry, no matter what aspect of IT you are talking about — is between automation on the one hand and innovation on the other. In fact, the reference earlier to Porter and his theories of the transformation of business reflects this exactly.

Automation is an essential that many of us for many years have expected of technology. It is about computerizing, automating, routinizing, systematizing, and motorizing — all these kinds of words — essentially speeding up what already goes on — not changing the process, but using technology to make it a bit quicker and cheaper. That is one use of technology.

The other use of technology is innovating, where we say, "no, actually we're going to do things entirely differently." Technology enables us to deliver a business, a product, or a service in an entirely different way.

Now let me give you just a brief illustration of this. Think of one of the most successful information technologies in the world, cash dispensing technology, ATMs. Now, what did that automate? It was not the case that thirty years ago in the middle of the night you went down to the local bank and there was a hole in the wall and you said "$30 please" and they said "here you are." It was not the case that that process existed and technology came along and sped it up a bit — of course not. But, if you are thinking of automation, that is the kind of model you would have in mind.

We have to get out of the mindset of automation. We have to get out of the mindset in our information society that technology is simply going to speed up or improve what we already do.

In fact, the great opportunities for the legal profession will not lie in automating what we already do — that will only be a thin sliver of legal work, to which I will turn to in my conclusion. But, in fact, the real benefits are going to come from using technology to change the way we deliver our services, to allow us to deliver entirely new forms of legal service. The way we should drive ourselves toward that is by thinking of the hole in the wall rather than the drill.

Let me conclude. What is the future of legal practice?

I still believe — I believe this strongly — that high-value, complex, or socially significant legal work will still be the preserve of the traditional lawyer in the future. It will be streamlined and optimized through IT, I have no doubt. But the high-value work will still require the human legal specialist.

Now, normally when I say that to a group of lawyers, you physically see a sagging of shoulders — because each thinks "that's me, I'm a high-value, socially significant lawyer." And generally people are also thinking, "I hope I can hold out until retirement." But, I genuinely feel that the high value work is the tip of the iceberg.

There is, secondly, a middle market, and I think there are difficulties for you if you are in this business. Routine and repetitive legal work, I have no doubt about this, will be systematized and then commoditized. It is not just going to be will drafting, it is not just going to be property transactions, like domestic conveyance in England. There are also whole bodies of legal work that are conducted today about which we will ask, hand on heart, "could this actually be systemized and commoditized?" And, we know it could be. And even if lawyers do not do it, other people are going to do it. So if you are in that market, I think there are some serious challenges ahead.

But, thirdly, there is — and here is the good news — what I call a latent legal market. There are, out there, innumerable circumstances where people, both in their business and domestic and social circumstances, need legal guidance, but to get that legal guidance in the past has been too expensive, too cumbersome, or too forbidding.

Now, if the general theory is accepted, if the premise is accepted that all manner of information and guidance will be available on the Internet, on the World Wide Web, and that this will be people's first port of call for that guidance, then, I think you can expect people to benefit from Web-based legal guidance as well, in a less expensive and in a less-forbidding way than in the past.

And finally — and this is a crucial point, I think — this will not simply be legal guidance, because in many ways it does not make much sense if, say, you are setting up a business to go to one source for your legal guidance, another source for your accounting guidance, and another source for your financial advice. It will all come together, and lawyers may indeed be the people who bring that together into multidisciplinary services, bringing together the information that people require in their real-world circumstances. We will no longer package or present our guidance in the traditional legal categories, but we will aim them toward the market and we will work with other professions, combining their expertise as well. If you are a customer or a client of these kinds of information services, this is a great improvement. You no longer have to go to many individuals to receive guidance, and it is there in a form that is easy to digest.

So when asked what I think about the future of law, I think the future of law is actually exceptionally rosy for the users of law. I think the future for lawyers is very much in your own hands.

Thank you.