

After the Great Party - A Great Hangover

Text below was written in 2001/2. ☐ As you can see over 20 years on - really accurate forecasts on the future of banking and related issues.

Future of Banking: Every aspect of corporate finance and wholesale banking will be transformed by the digital economy, despite the collapse of new technology share prices at the beginning of the third millennium. If the year 2000 was the great Party, then 2001 was the great Hangover. The big question is what comes next.

In the last five years, most large companies made three big mistakes and are about to make another. The digital economy has consistently caught financial institutions off-balance, lurching from one leg to another, each time trying to correct a previous mistake.

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In 1996, many people said the internet was irrelevant, would not have a significant effect on client behaviour and was not worth investing in.

In 1999, many of the same people decided they were late: the internet was very important and they should spend huge sums of money to catch up.

In 2001, the same people changed their minds again. The internet was significant but not central and as little should be spent on it as possible.

Yet throughout all the ups and downs of the market there has been solid growth in the number of people online, as well as in the value of financial services conducted, the breadth of financial products trades, and in the depth of relationships conducted using digital channels. People do not check the share price of Amazon before they buy a book.

The big question is: what will be the next corporate mistake by financial institutions? I suggest it will be a failure to recognise the power of the digital economy to make a deeper transformation of corporate and wholesale finance.

One reason why so many banks have consistently made the wrong decisions about the digital future is over-reliance on market research, which strongly confirmed the scepticism of executive boards. The overwhelming majority of customers said they weren't interested in using the Internet to run their bank accounts, corporate finance relationships or anything else.

But since when have the general public or corporate clients been experts in global technology and financial services trends? How could they possibly be expected to form an opinion about e-banking when most still doubted their need to be on-line?

Don't Believe Market Research

Don't believe market research - it can't predict the future. Market research only tells us about today. It tells us nothing about tomorrow. Customers usually know even less about the future than the executives who have paid to ask them.

Many financial institutions will not survive in the new millennium because they are relying on late 1990s surveys to plan third millennial products and services. They will land up with the wrong products, designed for consumers who no longer exist.

Most people see the future as more of the same: faster computers, better cars, more TV channels. They can't see the big picture - how life itself will change.

A classic example is aircraft design. In the mid 1990s airlines such as British Airways asked business fliers what they wanted and they said good food and wine, comfortable seats, more video choices and personal screens. Hardly anyone mentioned data sockets on satellite phones, and even fewer asked for power supplies in arm rests so they could use PCs without clusters of spare batteries. Now these things are regarded as number one essentials for any world class airline - but it's too late. They won't be widely available on BA flights for some time.

This was a hugely expensive mistake. According to Primex, makers of 82% of all in-seat power systems, installation costs \$1,000 a seat, but after delivery there is an additional cost of up to \$1,000 a day per seat in lost revenue while aircraft are sitting in a hanger. In 2001 British Airways still had huge numbers of business seats offering data phone sockets to frustrated and angry executives with dead portables.

Those with longer range vision have won a competitive advantage. Over 1,700 aircraft world-wide already had in-seat power by 2000, but not one owned by BA. Delta introduced it in 1996 and is rapidly extending this across its fleet. Lufthansa has power in all new first class seats and is upgrading business class. But American Airlines is leading them all after a delayed start. Retrofitting is complete on all its Airbus aircraft. Power will soon be available on all business class and half their economy seats. Code-sharing airlines are now under pressure to make sure travellers stepping out of a powered seat with one partner airline can continue their journey with the same facilities.

So what went wrong? Airline chiefs trusted market research and lost sight of the future. Fundamental changes were taking place in three areas. E-mail replaced fax and people began to expect near-instant answers. Last minute interactive presentations on PowerPoint replaced dusty overheads. Heavier flying schedules meant that many executives were forced to give up in-flight leisure time to catch up on work. Laptops appeared everywhere in departure lounges and during flights.

There is nothing more annoying than being forced to stop urgent work less than three hours into a seven hour flight. What's the point of a data socket when you have no power? Instant access to e-mail is essential in a world where responding in an hour can make all the difference between signing or losing a multimillion pound deal. It also means you can get vital reports out of the plane seconds after completion at 33,000 feet.

The trouble is that behaviour is changing far faster than lead times for new products and services, and the gap is getting worse. That means market research will be even more useless for future-casting financial services in the next five years than it has been over the last decade.

Institutional blindness is a dangerous condition

Time and again we see this institutional blindness, compounded by dangerously misleading survey results. Account holders changed their minds about online banking and purchases faster than market research predicted, and as a direct result banks are struggling to catch up. But it's

already far too late for some, as non-banking competitors race ahead with a wide range of well developed digital products and alliances.

Survivors will be future-thinkers: companies that see six months to two years further than competitors. That means early warning systems, able to distinguish a faint blip on the horizon from background noise. It means taking a bigger, wider view, an integrated approach. It means parallel planning, preparing for fast response to a variety of outcomes.

Companies need visionary [leadership](#), management skills are not enough. What's the point of managing people and products superbly well but in the wrong direction? Visionaries in large organisations are often marginalised because by definition they are constantly challenging assumptions about the future. But a board without vision is a dead board. Find those with vision, give them a voice. Bring in fresh, independent thinking.

So then is there any point in market research at all? Listening to consumers will always be very important, to understand shorter term issues that need addressing now. Changes in survey results over time also give a valuable indication of trend. Market research is vital to fine-tune existing services, but as we have seen, over-reliance is deadly.

Death of National Stock Exchanges

Another example of blindness has been over stock exchanges. National exchanges cannot possibly survive. The London and Frankfurt stock markets will disappear altogether, as will every other national exchange in Europe to create a Pan-European Exchange. The process could be almost complete in less than five years with huge consequences for every financial institution in Europe and beyond.

The very idea of a national stock exchange is a throw back to an ancient era when people still breathed the same air in order to trade. The rot set in the moment that electronic trading began, forever separating deal from the dealer. In that moment national [stock exchanges](#) became nothing more than a computer servers in a basement.

Of course, such a switch is technically straightforward: simply a question of which computer server lands up in which basement within a new regulatory framework. There is some resistance from exchanges who have spent a fortune creating incompatible electronic platforms

of their own, but not enough to prevent a stampede into new alliances.

The trouble with national exchanges is that they embody national pride and psyche. Every day, Swiss investors watch movements on their Bourse with a mixture of pleasure, alarm and pride. The Germans, British and Americans likewise can hardly conceive of the death of their own markets.

There are other pressures on these ancient exchanges, caught in a late twentieth century timewarp. In a globalised world multinational companies want multiple listings, allowing their stocks to be traded across every time zone.

The notion of a multinational trading only in the country where its historical HQ is based is a nonsense. Multinationals are voting with their feet, running away from national exclusive listings.

Then there is the Internet: by 1999 some 25% of all trades in the New York market were already via the net, and the process has continued to accelerate across the world, but we are still in the first ten minutes of the digital age. The transformation has hardly begun.

Who needs old stock markets anyway? At least one company has floated stock on the net, without using a traditional market at all. What is there to stop me selling my own share certificates on a bulletin board? What would happen if - say - ten medium sized companies created their own co-operative exchange just for their own shares, on the net, with 365 days a year 24 hour access, and ultra-low costs? What would happen if two or three major financial institutions began to experiment with creating a broader cyber-market, using the latest security encryption?

24 hour global virtual trading in major stocks

I have asked many large audiences of global fund managers this question: if - say - Microsoft were to partner with five leading financial institutions to launch a global 24 hour trading platform, handling the top 30 stocks worldwide, with huge transaction savings, how long would it be before the platform won at least 30% of all global trades in these stocks? The general consensus is 6 weeks to 12 months. My next question has been this: how long as a second phase to win 60% of all trades in the top 100 global stocks? The answer is a further 6 weeks to 12 months - assuming another virtual platform is not launched to seize some of the action.

These global fund managers are the people who would make it happen. They are saying that in 12 weeks to a year a single new online trading platform could win up to 60% of all the trades they place every day in the big stocks, regardless of yet-to-be-resolved problems such as legal framework and risk. Whatever happens it is clear that those in the market are ready and willing to embrace new technologies far faster than many realise.

We saw this in June 2001 when the new Virt-X platform was launched as the first integrated trading, clearing and settlement system for Pan-European stocks. Their aim was to take 10% of all trades in blue chip companies within twelve months. However in the first day alone it handled 20,000 trades (compared with 117,000 on the London Stock Exchange). Developed from the Tradepoint stock market platform, it began to trade in 612 European "blue-chip" stocks after just couple of weeks.

Of course, such electronic trading platforms are hugely efficient and Virt-X started by pricing deals at between 2-20% of traditional markets. Virt-X is owned jointly by the Swiss Stock Exchange and a consortium including Instinet and major banks including Morgan Stanley.

So then it is inconceivable that national exchanges in their current form will live beyond 2010. Expect further major convulsions long before then. Once Europe begins to trade on one exchange, it would only take one other major player to announce a link to set in motion a rapid chain reaction. The result will be a single global exchange trading continuously, which raises the spectre of a rolling world market crash at some point in the not so distant future. Some exchanges might chose to remain outside the global trading alliance, but their longer term future will be uncertain. Key issues in any new formations will be trading confidence: liquidity and security. Both these barriers will be overcome, with time. Confidence comes with use, and with confidence volumes and value of trades begin to grow. Indeed there are already a large number of virtual trading platforms of varying size. The future is being set in place right now.

What happens to banks and brokers?

But the bigger questions are these: what happens to banks? What happens to brokers? What happens to communities of finance sector workers, in a virtual world?

Communities of financial expertise will continue to be found in places like London, even if a regional or global server is based elsewhere, because quality people often need more than

money to relocate and big national exchanges have attracted relatively immobile but highly skilled labour forces.

However, it is questionable how long that geographical bias will last. In virtual world any traders anywhere in the world with the right skills can be welded into a global investment team. Stock Exchanges such as London, New York and Tokyo need to wake up, move fast and try to take the lead.

Many banks are in serious "digital" trouble as it is. A gathering crowd of non-banking competitors is already taking their business, ranging from supermarkets to airlines.. Exchanges exist to serve their members and their members are banks and most banks are dinosaurs. This is a fundamental weakness of the structure of exchanges.

From the investors point of view, trading on-line should be simple and low cost, enabling someone with a computer in a hotel room to directly buy and sell in the market. But members insist that all trades are done via members, who cream off profits for doing nothing except transmitting an electronic pulse from their server to the exchange. At present for example, individual investors cannot access Virt-X - a block which is totally illogical in a digital world. The block is there only to protect the interests of banks and brokers as intermediaries who would otherwise not be willing to support Virt-X. However this situation is completely unsustainable in the longer term.

It is just an example of the fundamental problem which affects every aspect of corporate banking to one degree or another: we can get very involved in the detail of back-end processing systems and other IT solutions and totally fail to see the great tidal wave heading towards the beach. Since banking transactions are essentially nothing more than altered bits of data on spreadsheets, the pressure for total digital integration is irresistible.

Take another example which is the absurd nonsense over delays in transferring funds from one bank to another. Internally, funds can be transferred by clients themselves in a single mouse click, and appear instantly in a different account - yet between banks there are usually delays of several days. The computer systems have been artificially slowed down to imitate the slowness of traditional paper systems over ten years ago. Client money should move between institutions as fast as data - at the speed of light - with no exceptions. There is absolutely no good reason in the third millennium to accept anything less.

An end to commissions and problems with advice

The industry is in for a huge shaking. Life will not be more of the same. With commission rates falling rapidly towards zero, old-style brokers will be unable to make a living. They will only survive as financial advisers. But most small to medium corporate investors will object to handing back every penny they have saved in commissions. Job losses are inevitable. The process is well under way. Larger institutions are already negotiating what overall commission rates they are willing to pay based on the previous year's performance.

But this raises another huge problem. Can investment fund managers consistently beat the market - and if not, why should they be paid such huge amounts for commission or advice?

Every year I lecture to hundreds of the most senior investment analysts and managers and ask the same question: how many people here today are confident that your teams consistently out-perform the market and will continue to do so? By this I mean that they make more money for their clients in equities than they would have made by investing in a tracker fund, after deducting the additional charges for actively managed portfolios. Very few raise their hands. They all know of good teams and bad teams inside their institutions. They also know a good team can become a terrible team in a single day with the loss of a key team leader to a competitor. Therefore they recognise that previous performance is absolutely irrelevant to future predictions of success.

This is bad news. At a time when costs are being closely looked at, when it is ever harder to charge as much for advice as you lost in commission, performance of the advisers is also being severely tested.

Some say that they will continue just as before - that the largest deals will never be done on e-trade or similar platforms because the security is simply not there. I would argue that they are blind to the future strength of new platforms and security systems that will provide a corporate client with as much security as needed to make huge fund changes just as they wish without any human intermediaries whatsoever - if they wish.

Then again, some say that although they admit it is hard to beat the equities market, at least they add value by advising on what proportion to keep in equities and what to keep in other kinds of investments. That may be true, but requires far less brain power than deciding on a

daily basis whether to buy or sell Microsoft or UBS. And therefore will mean less money for the advisors. The impact is inescapable. We may argue about timescales on these things but the process itself is beyond question.

Corporate Finance in a Mouse Click

Despite all this, most corporate bankers still assume that the nature of their business will protect them from the most destructive effects of the digital revolution. They say that the client relationship is the most important thing, based on trust, and that this cannot be replaced by an electronic channel.

While this is certainly true in the short to medium term the longer term future is far less certain. The lesson of history is that whatever starts to work on a smaller scale tends to have a later impact on larger financial arrangements. For small to medium sized businesses it is already clear that online banking is going to alter the decisions they take.

Let's take the example of an overdraft facility or a longer-term corporate financing arrangement. How long will it be before a company can switch the loan from one lender to another on a single mouse click, to gain a small short-term advantage? The technology is already in place, even if the products are not. The same applies to interest bearing deposit accounts. Whatever complex investigations and reports that were gathered to support the original lending decision four weeks ago, can in theory be made available in secure electronic formats to other lenders for instant decisions. The key is an intermediary that firstly gathers all the client data and guarantees its accuracy, and secondly gathers all the lenders' criteria. The rest can and should be done by robots.

In the retail market such product switches could be a reality within five years. The implications are huge. Once you allow money to be switched instantly from lender to lender, the next step will be to replace the human with a robot, whose only function is to switch funds perhaps many times every day as new offers appear in the wholesale market. It will no longer be relevant where the finance is coming from, but only which financial institution is running the robot.

A few months ago I took out a large loan on my house. It was arranged by a broker who took standard client data and matched it to 400 different lenders - whose best offers were constantly changing. When we did the deal, the broker said that the loan could be switched to another lender without further commissions if the rates changed. Today that means me signing another piece of paper - but why in the future? Why can't I sign an authority to my broker permitting the

broker to place my loan wherever the interest rates are the most favourable, on identical repayment and contractual terms, without further contact with me? And once that system is in place, why not run it electronically, eliminating all further human effort until the mortgage runs its' term or the house is sold? Of course, eventually a switch may require a fresh property evaluation - but not every day or every month even.

Some corporate bankers believe they will never face these kind of threats - but the logic of the digital market is impossible to avoid. At present the only thing stopping these kind of arrangements is the lack of knowledge and security each potential lender has about the nature of the risk they are taking on. But all that could be dealt with by a trusted intermediary.

At the top end, arrangements will remain very complex and personal trust together with reputation of the institution will always be the most important factors, but it is foolish to think that even here the digital impact will not be significant.

Why New Technology is Usually Bad News for Banks

New technology is almost always very bad news for banks but good news for those who use them. The aim of technology is usually to remove the need for human brains, and for human strength. Full digital automation means no thought and no human movement. No human activity whatsoever. Since most financial services are simply about lending or borrowing bits (financial data), they lend themselves to digital automation on a grand scale.

Every step in the process results in destroying jobs, as the robots take over. As costs fall, products and services become cheaper, in an ever tightening downward spiral towards zero. If your technology is good and it works, you can be sure someone else will copy it in a few months, at a fraction of the cost, ending up with a better system, undercutting your own pricing.

We conclude that financial institutions never gain a competitive advantage from new technology unless they have great system, that works, that is the first or a fast-follower, and that even then whatever advantage they have is likely to last far less than a year.

We also conclude that the only competitive advantage apart from price and nature of products is going to come from the nature of personal relationships at the premium end.

Why banks are usually up to three years behind

Ask any Chief Information Officer of a major financial institution how long it takes to roll out a completely new system onto every desk of every executive and you get roughly the same answers: at least a year to get the system in place and usually at least a further year before it works well and everyone is using it. If you ask how long it takes for the board to make a decision about which system to go for, the answer can range from six months to a year, from being an "Any other business" item at the end of a board agenda to final decisions. That means the cycle of innovation can be at least three years long.

The problem is that an individual can make a similar jump in less than three hours - by going to the nearest computer store and buying the latest laptop with, for example, the latest video-email system.

So the reality is that large institutions can be three years behind. That means they have to start planning and building today the systems that will be needed in three year's time: systems that are unwanted today, look foolish right now, that meet no consumer demand, fit no market research profile, and all using technology which is currently almost science fiction.

Smaller institutions win every time when it comes to packaging creative new products. Take for example Virgin, which started as an airline and went on to become a bank. Bank of Scotland is a traditional large bank crippled by old legacy systems like all its major competitors. Along comes Virgin with a bright idea and a request for some wholesale finance. Their idea was simple and brilliant: start a new retail bank which combines all current, deposit, loan, mortgage and credit card accounts into one big account, secured on property.

All money in the account is then used to reduce the mortgage on a daily basis. If mortgage rates are - say - 6% then the amount saved is equivalent to a gross interest rate on the deposit of 10% before tax - and how can you get such a rate on short term cash any other way? And any extra short term loans - overdraft, credit card, car loan or other debts - are also serviced at only 6% - a saving of up to 12% on current loan rates. Every month account holders get a single statement showing all income, outgoing and total net worth.

The fact is that although the idea took off, many traditional banks did not have the technology to make such accounts work. Their systems could not even begin to produce the right kind of

statement calculations. In this case, Bank of Scotland became a wholesaler of finance, while all the real banking work was done by Virgin.

In a similar way we can expect many imaginative solutions for small to medium corporate banking needs over the next five years.

Virtual Banking and Relationship Banking

For those handling the largest accounts, relationship and trust are everything. These account managers are often convinced that new technology will hardly affect them because this personal emphasis protects them from digital pressures. Nothing could be further from the truth.

Internal efficiency demands use of new tools

At every level we can expect aggressive cost-savings through use of new technology to increase efficiency inside institutions.

Eight Steps to Double Personal Productivity

Many financial institutions and their corporate clients are investing huge amounts in new systems while failing to address simple changes which could double executive productivity at almost zero cost. The aim is also to increase availability to global clients across different time zones while also protecting quality of life.

1. Typing speed increase - What is the point of installing a knowledge management system or an upgrade to e-mail handling for a team that can hardly manage to type 15 words a minute with two fingers? Most people who claim information overload, handling up to 100 e-mails a day, are in fact suffering from their inability to reply quickly to simple messages. Simple keyboard training produces dramatic improvements, especially when a robot is used to analyse common errors for practice. Speech recognition is now effective at up to 140 words a minute, with 98% accuracy but does require the user to be disciplined in the way they speak and also to train the computer. However, typing is still necessary for redrafting. If people type slowly they tend to use the phone more but the phone is very inefficient - 100 words per minute of communication without any written record. Most executives can scan a 1,000 word e-mail in less than a minute - so that means phone can reduce the productivity of the listener by 90%, just so the speaker can improve their own productivity by avoiding the pain of typing. The lesson

is that receiving a well-written e-mail saves a huge amount of time on the phone.

2. e-mail discipline - Ban all attachments unless absolutely necessary. In the time it takes to open one Word attachment, you can read and delete twenty other emails. Attachments are a dangerous source of viruses and also slow down access using devices such as mobile phones, because an attachment is often up to 50 times the size of the same message as an ordinary e-mail. For speed, also insist on a summary of every message in the header, and a slightly longer summary in the first two sentences if the message is long.

3. Stop using voice-mail - In a typical break from a meeting, executives rush out to check their voice-mail. This process takes an average of a minute per message. Since some messages require an immediate call, the executive often has to re-enter a meeting without having been able to get to the end of the messages, after wasting considerable time listening to messages that turned out to be unimportant. In a fast-moving digital world this is no way to manage important relationships. A better alternative is to divert callers to a message service where each call is answered by an assistant who gives a personalised greeting, and asks for your message. This is then typed and arrives in your mobile phone a couple of seconds later as a short text message (SMS), a permanent record, so that you are constantly aware of who has been calling and are able the moment you are free to prioritise who to call back first. Unlike your office, the service never sleeps, which is vital when travelling globally and when managing relationships across several time zones. And the service costs almost nothing.

4. Use e-mail more and phone less - except to build trust, clarify issues and where the other person's preference dictates it. Most executives can scan text at 5,000 words a minute, but can only understand human speech at 100 words a minute. That means I experience a 50 times productivity gain when reading an e-mail than when someone is explaining exactly the same thing to me over the phone. But if the sender can only type 25 words a minute, then he or she experiences a four-fold productivity fall when writing me an e-mail, because it is so much slower than speaking. We conclude that bad typists will always tend to use the phone, and in doing so, they slow down the efficiency dramatically of the people they are talking to.

5. Use telephone conferencing more - Telephone conferencing is greatly underused yet is a powerful low-cost tool to bring several people into a discussion.

6. Use videoconferencing more - Many executives tell me they have travelled more in the last twelve months than in the previous two years. Some are already spending more than six weeks a year at 35,000 feet. What happens next year? Many financial institutions are about to reach a ceiling regarding their ability to expand further, because they are continuing to use last-century management models to manage in a globalised world. Every time there is a new merger or acquisition the usual behaviour is to visit again and again, in the process of integration. This is unsustainable. We have to find other ways to work. A complete videoconferencing system can be installed for less than the cost of a return business class fare from Europe to New York. If broadband internet connections are used such as ADSL, then there are no call charges and centres can be linked with sound and picture 365 days a year, for less than \$150 a month, with each office displayed across an entire wall using a data-projector. Even if conventional ISDN lines are used, the call charges are far less than an air fare, and bureaux can be used to link up to ten different sites very efficiently in the same videolink. If your clients or other offices don't have the equipment - give it to them.

7. End all travel budgets - The only reason to travel is to communicate, so travel budgets should be re-labelled communication budgets, with executives given the option as to how they spend, whether on air fares, taxis, hotels and restaurants, or on videoconference equipment

and call charges, personal technologies and other devices.

8. Encourage home-working across time-zones - When many of your most important relationships are across different time zones it makes no sense to regard the office as the centre of activity. For a start it makes no sense from the geographic point of view. It also makes no sense from the time point of view. If I have to make calls to the Middle East at 6am and more calls to San Francisco in the evening up until midnight, what is the point of going to work? What happened to time off? My Middle East clients don't work Fridays but want to talk to me on Saturday and Sunday - what happened to weekends? Fully globalised executives should be encouraged to regard conventional office hours as meaningless.

In conclusion, every aspect of corporate banking will be transformed by new technology. The products, how they are sold, and the nature of client relationships will all come under pressure. The most successful institutions will be those who combine visionary technology and very competitive pricing with strong relationships and brands built on trust and previous in-depth experience of the client business.

Size will continue to be very important when offering global support to multinationals, and will also be essential to create the power-base for large-scale institutional relationships and transactions. We will see further rapid integration at the top end, at the same time as the emergence of many new niche players and trading platforms offering an ever widening spectrum of products and services in ways that few would have foreseen five to ten years ago.

Just as many financial institutions have run away from retail banking towards premium or private banking and institutional banking, so we will also see severe competitive pressures on the bottom end of corporate banking and a constant trend to seek higher margins in more complex business deals.

The greatest changes will not happen overnight, but should be planned for now because it will take financial institutions many years to adapt and be prepared. For many, the process is already too late, and their best hope is to continue to remain profitable in declining areas of business, until they are taken over.

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Dr Patrick Dixon is often described as Europe's leading [Futurist](#) . He is Chairman of Global Change Ltd, a lecturer at business schools and, author of ten books including "FUTUREWISE. He advises Fortune 500 company boards and senior teams on strategic implications of a wide range of global trends including the new economy, the digital society, virtual corporations, financial services, biotechnology, lifestyle changes, consumer behaviour, public policy and corporate ethics.

Dr Dixon is also one of the world's most sought after conference speakers. His multimedia vision of the future is experienced by up to 4,000 people a time, in up to three countries a week. He has presented at the World Economic Forum (Davos), The WEF Southern Africa Economic Summit, the International Emirates Forum and Internet Expo (Helsinki). Recently a member of the World Bank Technical Assistance team in China, his clients include Hewlett Packard, Compaq, Microsoft, UBS, Credit Suisse, Price Waterhouse Coopers, Arthur Andersen, Ford and IBM. As a global authority on the future he has featured in over 150 TV and radio broadcasts in the last 24 months, including CNN, CNBC, ABC News, Sky News, BBC, ITV and Channel 5. He has written for many publications including Time magazine and his own web TV station has had 25 million requests in year, running from a cyberbubble studio at the top of his house. In it he lives in the year 2020 and sees tomorrow as history.