5 Is There a Substitute for the Real Thing? Information Appliances

At the British Council of Shopping Centres' Annual Conference in Edinburgh in 1991 there was a panel discussion on the future of shopping. When questions were invited, I put forward the view that the panel had not addressed the question at all. They had spoken of the form of centre design, leases and so on. I said that in an era when one could experience flying a 747 from an armchair, it must be possible to use virtual reality to experience visits to a shopping centre – in fact any shopping centre in the world! It was worthy of consideration – and still is – because of the obvious impact it could have on the industry. At that time, I was being somewhat contentious, using a general assumption that the advance of technology had to be seen as a means of retail development in the future. As it was meant as an argumentative question I did not raise the extreme difficulties of authoring such an expensive program. I had no definite ideas or knowledge, but the point of an expert brainstorming discussion group was to indicate where we might go. To my mind, this did not mean better design for lighting or entrance floor mats: we must borrow the introduction to Star Trek™ and consider if it is possible to go where no man has gone before! Naturally, I have given the matter a huge amount of thought since then. Above all I have been impressed by three facts: firstly, the software program development for normal simulations such as planes or racing cars is very expensive and lengthy to produce. The market for those simulations, with a few exceptions, is small and volatile and the computer literacy is generally focused on games playing coordination or business applications without the need for a wide-ranging intellectual capacity. It is likely, therefore, that the time lag required to update current merchandise listings or visuals, either on CD-ROM or online is likely to be too long for efficient updates. Relatively fast updates of listings or photographs can be achieved but will require very efficient coordinated marketing efforts. Good and successful retailers merchandise their shops to make the greatest impact and achieve the greatest sales.

The latest fashion item and accessories, the best selling lines, tend to be in the forefront, with slower selling lines moved to less prominent positions. The customer wants to see the newest, latest, offer and be seduced by it. The standard of shop window displays, high quality of design and fittings internally, shop displays and personal customer service are high investments made by retailers to engender sales. One must wonder if this can be achieved on a computer program.

According to *Shopping Centers Today*, in a special report on Value Retailing, several discount retailers are calling for reorganisation protection in the United States. A handful more are on the verge of bankruptcy. Jamesway, Caldor and Bradlees have all filed for Chapter 11[1] in the recent past. It would appear that convenience and price is not necessarily the over-riding reason to shop.

Second, it is a strange paradox that the growth and popularity of video rentals and improvements in VCR and television has been reflected in record attendance at cinemas. The British Video Association announced at its annual awards ceremony in October 1996 that there was an increased level of video rentals for the first time since 1989. Rentals in September showed an increase of 6 per cent year-on-year rise, giving the highest volume of rentals for any month for the previous five years and retail sales of videos increased by 4 per cent. Yet cinema chains are continuing to develop multiplex and multi-screen cinemas at an unabated pace. In December 1996 a report issued by the Central Office of Statistics in Britain showed that the number of people going to the cinema was up by 23.7 per cent to more than 30 million, and that they spent £93 million at the box office.

There are other examples to support this continuing desire for a personal experience. Televising live soccer on terrestrial and satellite television including Premier, First Division and Italian Serie A games has been reflected in steady increases in attendance at live matches. Live screening of major Rugby Union internationals, complete with close up action and replays, still sees 73 000 capacity at Twickenham and a big unsatisfied demand for tickets. At the lower level, the televising of Rugby Union club games has also coincided with

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1. Chapter 11 is roughly the equivalent of an administrative order allowing the company to continue trade while insolvent and providing protection against winding up action by its creditors.

increased attendances. One must logically conclude that the public interest is whetted by the technological appetisers and, as Coca Cola would say, there is no real substitute for the real thing.

As a result of this heightened interest, better facilities have been possible, with increased investment by clubs in top class players and better sound systems, etc. at cinemas: the public becomes more attracted. So the spiral continues. It would be reasonable to think that tele-shopping would act in a similar way. Would the advertising effect of merchandising into the home increase the attendance at the actual shop? Indeed, as argued later, are many retailers following this line by using the Internet as a marketing tool? The deal made between the Premier League and BSkyB from 1997–8 guarantees each Premier Club a staggering multi-million pound income per season with a still major amount for two seasons for any relegated club. This income has enabled clubs to invest in better players and facilities. It therefore follows that a strong and attractive league is in the best interests of Sky because their programmes will be correspondingly more attractive. It also follows that online shopping providers would be best served by featuring strong traders who are well known with recognised brands. If Sky has shown such extraordinary success by supporting the live event it seems logical that online providers should follow this course. On that presumption, retailers will not disappear but will, instead, look forward to more custom as their attractions are advertised to Internet browsers. To put the argument simply, television, video and online are supports to the main activity providing ancillary services, including advertising and awareness.

Thirdly, in the short term, I have become more sceptical with regard to my previous feeling that computer literacy would become the norm among our young people. I am now less convinced that the recent results of standards among eleven year olds in Britain, and the results of computer literacy surveys in America, encourages the belief that sophisticated programs will be usable to the extent needed by the relevant targeted portion of the general public to justify the investment in home or virtual reality shopping of a very comprehensive nature. The development of pictograms or voice recognition systems in the future will probably alter that opinion, but it is likely to be a number of years before reaching that stage. We must certainly await the expected installation of integrated home information centres incorporating telephone, fax, computer and cable before seeing if the system will provide easily-used and cheap methods of access. A MORI survey published in October 1996 stated that forecasts of

Britain going totally online for work as well as play are confirmed as way off the mark. The poll discovered that 75 per cent of respondents did not know how to get onto the Internet, let alone how to use it once there, and that 43 per cent of the population does not use mobile phones, computers, electronic organisers or pagers.

Some moves have already begun through the introduction of Personal Computer Hegemony.[1] This clearly is not the same objective as an easy integrated communications system of the future but it does indicate the thinking among leading companies. It is another form of design to satisfy an increasing number of perceived needs without having to leave our armchairs. The question it raises is whether we stick to using computers for application of our skills, or do we integrate computing into the mainstream of appliance technology?

Intel, Compaq and CompUSA have a proposal for something called Intercast. This is a scheme which will permit the watching of television on a Pentium computer and receive related Web pages from the Internet at the same time. Intercast™ technology offers an easy way to get more out of television programmes you watch. Accessed through a PC, it combines the interactivity of a computer, the rich programming of broadcast and cable television and the world wide resources of the Internet. Philips and Sony are introducing WebTV, which is said to be a high resolution, high speed Internet 'experience'. In effect, it is a Black Box which is placed between the television and telephone inputs. A card slot in the box will allow it to be upgraded with new design plans. There will also be a port in the box so that credit cards can be inserted to make purchases over the Web. WebTV boxes made by Sony and Philips have, however, fallen foul of the US restrictions on the export of cryptographic equipment. Because the browser software in the boxes uses industrial strength routines, the whole thing is considered a weapon. This question is dealt with in more detail later in the book.[2]

Intel, Compaq and CompUSA sell computers and computer devices and Philips and Sony sell electronic appliances. It is not likely that any of them will provide objective assessments of the future advantages and disadvantages because they have their own

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1. Personal Computer Hegemony – Hegemony means Leadership (Greek *hegomonia*, from *agro*, to lead). Its general meaning is authority or influence, and I assume the use of the word in this context indicates Personal Computer leadership.
2. See p. 178.

agendas to make profits from selling their own goods. There is an opinion that the movement to use the PC to replace everything we use such as televisions, radios, tape recorders, VCRs and answering machines is a way of reinventing the wheel in order primarily to solidify the computer producers' market share. That opinion thinks that it would be preferable to see the computer integrated into existing appliance technology, as it has been for years. This has been a successful approach because computers still cannot operate as efficiently or as cost effectively as many appliances, such as televisions and VCRs.

The message that simplification of use will be essential in the future is certainly getting through. Computer illiteracy and generally low standards of education, added to lack of funds among the poorer sector to purchase sophisticated means of accessing offers, means that a large market awaits gadgets which are as easy to use as the telephone. I reflect that even this simple statement is now being confused by the amazing amount of sophistication on quite ordinary telephone handsets. Memory recall, redial, hands free, diverting, conferencing, etc. makes some telephones difficult for non-technical folk and rank alongside programming of video recorders. The real and simple fact is that everything seems to be getting more difficult rather than simpler to use and one must presume that even a 'simple appliance' to be introduced will also be updated and developed in the future years, thereby presenting new problems to be addressed.

It is reasonably clear that many of the brightest brains concerned with software, hardware and computer science are working hard to discover methods whereby huge amounts of information can be transferred as easily as using a common kitchen appliance. Not only are major corporations tackling this problem, but small innovative firms are trying to come up with the solution. On the premise that the future is likely to be based on electronic gadgets that are as simple to use as the TV, everyone is racing to be first. New products ranging from wristwatch data phones to smaller personal computers are being developed as prototypes.

Appliances which can be used as easily as the telephone are seen as a way to allow the mass of people who are not presently wired into the Information Age. Although the personal computer may have already brought a large sector into Cyberspace, due to its high cost and complexity it relates mainly to the younger, better-educated and higher segment of the population. Therefore, the general opinion is that PCs in their present form are less likely to result in a mass market

online. Laurence J. Ellison, President of Oracle Corporation, says 'The world is in need of computers that are easier to use and less expensive.' Oracle is just one of many trying to predict what such computers will be like. In their case, it is presently a stripped down version with the bare essentials for cruising the Web. Everyone is looking at the large market who have yet to enter Cyberspace, which is about 60 per cent of US customers and about 90 per cent of households around the world.

At this time nobody really knows what content will encourage the millions to switch from channel surfing to Web surfing. It is recognised, however, that the figures are so vast that huge amounts of money are being invested in designing information appliances around the world. International Data Corporation predicts that in the next three years the market will simply explode. By the year 2000, some 22 per cent of all Internet access devices, about 22 million units, will be machines other than PCs. It took the world PC industry a decade to reach that level of shipments.

There are predictions of what is the ideal information appliance. These are hedged by saying that they will be many different types. Ideas include simple variations of what we have today, such as slimmed down home computers adapted as Net cruisers, Web-surfing TVs, smart phones and Net-connected game players. Some ideas are wildly futuristic, such as that of Tim Berners-Lee, creator of the World Wide Web, who says it might even be inside a cereal box: 'My kids could rummage around for the free gift, take out a tube, unroll it to something flat, flexible and magnetic, stick it to the refrigerator, and start navigating the Web. From the Kellogg's home site to the wild blue yonder', he says. The point is that these appliances will be everywhere. 'You don't treat it as something special', says Berners-Lee.

It is generally agreed that the PC will survive because it has such a huge momentum with a market said to be approaching 70 million units per year, and also because it has proved to be very adaptable. 'The PC is the TV for the Internet', says Duncan Davidson, a Consultant with Gemini McKenna High Tech Strategies. Greg E. Blonder, Director of Customer-Expectations Research at AT&T Labs adds, 'Four years from now, five years from now, the PC will still be the information appliance.'

As in any evolution scenario the PC is adapting to meet the rising competition. Clearly the major consumer electrics companies have certain advantages over PC manufacturers because they have brand

names that are used in every home, together with a marketing philosophy which focuses on how consumers want to use their products. That is an approach that PC manufacturers are only just starting to understand. 'We don't need breakthroughs in software or technology,' says Stan Shih, Chairman of Acer Inc., 'we need break-throughs in business philosophy.' Acer, the electronics giant of Taiwan, is planning to move from computers into consumer electro-nics and plans to introduce a $500 Internet PC for sale in emerging markets such as China.

This recognition of the need for a new approach is also supported by William 'Bill' Gates III of Microsoft. In April 1996, they initiated Simply Interactive PC as a standard for a more consumer-orientated Wintel computer that includes a format for linking those PCs to a variety of consumer-electronic items. Gates says, 'We still have a long way to go to make the PC an appliance.' To assess how long, we can look at a recent poll by MIT when they asked people what invention they couldn't live without. The top answer was the automobile at 63 per cent while only 8 per cent cited the PC, which tied with the blow-dryer and was just below the microwave oven.

There is also a viewpoint that neither PC manufacturers nor consumer-electronic giants will be the future leaders in information appliances. The new market offers great opportunities for new entrepreneurial companies. As an example, some of the first informa-tion appliances to hit the market will be those designed by Diba Inc., started up by Farzad Dibachi, who was head of Oracle's new-media group. Diba has ideas for some 30 devices, each being a single-purpose item such as Diba Mail being a phone and e-mail combina-tion.

Whatever the form of the future information appliance it is the software which will make it succeed or fail. Looking at the present systems, Web browsers have hidden the complexity of computers so that scanning the Internet is relatively easy, but improvements in software are still needed. The appreciation for the need for better software technology is acutely felt when one is side-tracked or over-whelmed on the Net – when, for example, a few words entered into a search engine answers with 26 983 possible matches. As a further result, software developers everywhere are working on ways to make the job easier for everyone, providing a user-friendly approach before the world's consumers rush to the Net. What is needed is an information appliance which is as easy as popping bread into the

toaster to produce toast, and of course producing it at the right colour and definitely not burnt.

Whatever the final result, a startling report of a survey by Dataquest was announced in December 1996. It said that 93 per cent of American households do not intend ever to buy one of the various devices that enable access to the Web on domestic TV. This is obviously bad news for a product category that is supposed to appeal to the two-thirds of American households that do not own personal computers.