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"NOW YOU SEE IT... NOW YOU DON'T" MYTHS OF THE DOT.COM MARKET

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ABSTRACT

Many would claim that the development of e-commerce is reshaping almost all industries, even to the extent that we are undergoing a paradigm shift. This enthusiasm represents a speculative bubble, what economists would describe as 'mania' as we witness increasing numbers of firms embracing the need for an online presence, despite the absence of both profits and sales. The recent turn of events – referred to as the 'dot.com implosion' – indicates that the rapid profit growth that was initially projected was unlikely to be achieved by many. As the technology markets crashed along with a number of high-profile dot.com collapses, numerous investors have almost turned off from funding this sector. This should come as little surprise. What is of interest is why myriad investors were drawn into financially supporting these start-ups in the first instance. Here we proffer some explanations, based on the mythology that surrounds e-commerce.

Keywords: e-commerce, business-to-consumer, dot.com, failure, mythology

1. INTRODUCTION

Numerous pundits, academics and research firms enthuse about the ways in which the Internet has transformed the lives of many. The rhetoric is particularly florid vis-à-vis business and the development of

e-commerce which is often claimed to be reshaping almost all industries, almost to the extent that we are witnessing a paradigm shift (Wigand, 1997). We argue that this perspective, which assumes change is taking place on a fundamental level, is not based on fact, but reflects a speculative bubble, one that has been created by numerous investment analysts and bankers keen to build upon rampant speculation about high-tech stocks. Without doubt, the development of the Internet and telecommunications industries represents significant potential for change, yet it seems that the response of the Stock Markets in the late 1990s regarding the future rate of return on Internet stocks was based on 'irrational exuberance' rather than sound economics (Freeman and Louca, 2001).

In the not too distant past, venture capitalists vied with one another to lend money to potential Internet entrepreneurs. This excitement led to an explosion of web start-ups as it was suggested that we were on the brink of a new economy. Yet, the recent turn of events – referred to as the 'dot.com implosion' – indicates that the rapid profit growth that was initially projected was unlikely to be achieved by many. In Spring 2000 the technology markets crashed along with a number of high-profile dot.com collapses, As a consequence of these cascading failures, there has been a significant change in the funding climate with countless investors raising their concerns about the potential profitability of such ventures to the extent they have almost turned off from funding the dot.com sector. This should warrant little surprise. What is of interest is why so many of these investors were drawn to (heavily) financing these start-ups in the first instance. Here we proffer some explanation, based on the mythology that surrounds e-commerce.

This paper is structured as follows. The next section will provide some background to e-commerce generally in order to contextualise the proceeding section. We then move on to deconstruct a number of myths, which are used to explain some of the rhetoric that adorns this phenomenon. The myths are as follows: the myth of the virtual; the myth of the entrepreneurial geek; the myth of success; the myth of the new economy; and, the myth of the e-consumer profile. Finally, some conclusions are drawn.

2. BACKGROUND

The section provides some background information on e-commerce generally, in order to assist us in the location of the dot.com boom and slump.

The term e-commerce is often misunderstood and used to denote different meanings. It has been described, at its broadest level, as representing "any form of electronic activity conducted via electronic connections" (Wigand, 1997: 2). It is currently viewed as representing a new way of doing business that will revolutionise retailing, even to the extent that little will be left of the 'High Street' (De Kare-Silver 1998). Therefore, it may come as a surprise to hear that for the last thirty years or so, various aspects of commerce have been conducted with the aid of electronic means, with a large majority of financial transactions (certainly in industrialised countries) involving some aspect of information and communications technology. Indeed, electronic commerce has been an established part of the business vocabulary since the early 1970s and so we raise the question, what is new?

In order to answer this, we begin by noting the genealogy of the term electronic commerce, which originated with electronic data interchange (EDI) and value added network (VAN) concepts in the early 1970s. These developments in electronic communications were further supported by the procurement and industrial policies of many governments, with a range of various initiatives (Hawkins et al., 2000). By 1990, ecommerce was fairly well established, but was primarily centred on business-to business and business-to-government transactions in the contexts of supply chain and logistical activities, and thus received limited public attention. Yet, within a decade, the vision of e-commerce had altered dramatically, having attained the status of a ubiquitous electronic market place that was relevant, and in some instances, essential, to all manner of commercial trading activity. It has been argued (Hawkins et al., 2000) that the concept of e-commerce encompasses a whole business philosophy that states not just that commerce can be conducted electronically, but that it *ought* to be conducted in this manner. For those who choose to ignore this new phenomena are at risk of becoming 'dinosaurs', as business becomes increasingly virtual: "The perspectives on electronic commerce presented and the implications to be drawn here are the realisation that the world of

economics is essentially borderless, as well as boundaryless, and those who do not see this will create more difficulties for themselves and their organizations than otherwise" (Wigand, 1997: 14). This is in keeping with the view that we are incessant consumers with self-directed expressions of agency freed from any structured social relations, rather than our experience of consuming being shaped by social relations (Edgell, 1996).

The main impetus for this radical shift that embraced all-things electronic was the rapid growth of the Internet, represented by the commercialization of Web browsers, which is now seen to symbolise ecommerce generally, despite being only one such vehicle. This forum, that was initially seen to represent a revolution in human communication, has quickly been hijacked by commercial interests. This is undeniable as we witness the steep growth in the number of domain names that are registered under the commercial .com category.

The links between the assumptions that the Internet is driving e-commerce and conversely that e-commerce is driving the use of the Internet are all underpinned by an inherent determinism. This determinism is based upon the premise that technology drives societal change and also that the population is ready to embrace a technological platform that provides a new channel for commercial delivery. However, realising the potential of e-commerce in Europe is likely to be less dependent upon the ability to source all technological elements and more upon proactive marketing strategies by firms that employ e-commerce (Hawkins et al., 2000). The evolutionary trajectory of the business-to-consumer paradigm is driven largely by commercial, rather than technological, criteria. Yet often, much of the hyped speculation regarding the future potential of dot.com start-ups is based on the misguided understanding that technology *per se* delivers benefits, including wealth-creation. The venture capitalists that provide financial backing for these start-up companies are not alone in this misconception, since for numerous businesses exploitation of the web remains a 'pipedream', as they either do not or cannot analyse their motives for having a web presence (Sauer and Burton, 1999).

When Amazon.com were launched onto the stock market in 1997 the dream of a booming stock market was initiated as analyst bankers exhibited unquestioning faith in the new high-tech companies. Certainly within the US, the rise of the dot com market, aided by television publicity, became the equivalent of a national spectator sport with analyst bankers taking on the role of television celebrities as they provided so-called rational evaluations of stocks that would rise *despite* the inability of these high-tech companies to generate profits. Financial markets represent a highly risky environment, one that is ferociously competitive with employees facing strong pressures to perform and succeed (Barret and Walsham, 1999; Freeman and Louca, 2001; Scott, 2000). Not surprisingly then, as high-tech stocks became part of the stock market index, analysts started to buy them, even though they may have been sceptical of the overly optimistic forecasts. Many of the young, inexperienced dot.coms with high evaluations are inherently fraught with risk, but as the banking analysts are no doubt aware, there is nothing more compelling than a booming market. As warnings emerged in Spring 2000 that a number of companies were running out of finance, it soon became evident that the multi-million evaluations were absurd – the emperor had no clothes (see table 1 for examples of some of these casualties).

Boo.com Sportswear and fashion retailer	Having ran up debts of almost £200m in two years they faced a spectacular collapse in May 2000. The failure was largely attributed to technical 'glitches' – it was difficult to use and the site was so sophisticated technically that only a small minority of users could actually gain access. The original company had over 400 staff based in 12 offices and was renown for their excessive expenditure on company luxuries. They recently re-launched as they were bought by Fashionmail.com of the US.
Boxman.com CD retailer	Boxman.com an e-retailer that sells CDs from a central warehouse, was at one stage Europe's largest internet retailer, but the company crashed in Oct. 2000. This collapse is significant as the company was seen to differ from other dot.coms since they had a business model, an experienced management team, and tight cost controls.
Clickmango.com Health and beauty website	The health web-site, ClickMango.com, fronted by celebrity, Joanna Lumley, raised £3m from investors in just eight days during the height of the Internet frenzy. But these same investors decided to 'pull the plug' within just four months of them launching their web-site when their monthly turnover was quoted as £4,000.
TheStreet.co.uk Financial news and commentary website	The American company (TheStreet.com) launched a British site in February 2000 but this collapsed in November, despite earning revenues of £250,000 per month. It was seen to represent a blow to the internet sector because the company was careful with costs and hit their targets. The company was looking for an additional £6m in order to continue.
EToys.com Toy company	The US company filed for bankruptcy in March 2001 having once been valued at \$12bn. Previously, many had assumed that first movers had prime advantage with online business; this has implications for all the other online companies that adopted this same business model.

Table 1: Examples of some of the casualties of the dot.com boom and slump (summarised from Barrow, 2000; Barker, 2000; Daniel, 2000; Goodley, 2000; Keegan, 2000; 2001)

3. MYTHS

In this section, we deconstruct five high-profile myths about e-commerce in order to understand some of the rhetoric that flourishes around this phenomenon. The use of myths in IS research is not new and has previously been applied in the IS field by Hirschheim and Newman (1991) and Grover and Ramanlal (1999), amongst others. According to Bolman and Deal (1984) myths serve a number of functions, including the provision of explanation and the maintenance of solidarity and cohesion. The function of mythology that we are primarily concerned with is the creation and perpetuation of myths for the purpose of legitimation and the mediation of contradictions. Here, we see mythology as an important vehicle for establishing a number of dubious justifications for participating financially in the dot.com share market.

3.1 Myth of the New Economy

This myth is used to announce the break with the traditional mode of production and the move to a new, totally different, digital economy. Here, we no longer need to rely on the traditional infrastructure (material) since everything can be transposed to the virtual.

During the period of speculative bubbles, currently witnessed by the dot.com revolution, but historically repeated in the case of south sea bubble, the railway mania of the 1840s, and the Wall Street crash (to name but a few), people believe that a new age1, has arrived whereby overnight wealth-creation is accessible by all. In this section we concur with Webster (1999) that history matters and indeed, repeats itself. As Webster points out, if we are to appreciate current trends, then capitalism needs to be contextualised. There are many superficial resemblances between the bubbles of the 1990s and the 1920s when previously we witnessed over-optimism about new technology (the car and the fridge) (Ferguson, 2001).

With regard to the dot.com rise and demise, we see that cycles of boom, which peak in a speculative frenzy, followed by a slump, are as old as capitalism itself. In the words of the liberal Amercian economist, J.K. Galbraith:

"There can be few fields of human endeavor in which history counts for so little as in the world of finance. Past experience, to the extent that it is part of memory at all, is dismissed as the primitive refuge of those who do not have the insight to appreciate the incredible wonders of the present."

Proclamations to the effect that we are entering into a new age, should be examined critically rather than simply accepted without question. Webster (2000: 70) argues that although change is taking place at rapid speed, this variance is "for the most part a matter of the continuity, consolidation and extension of established relations".

As the dot.com market hits a slump many of the icons of the new economy are being evaluated in old economy terms – namely, the need to generate a positive cash-flow. As their initial growth starts to trail and the investment funding starts to dry up, dot.coms are faced with the prospect of either imminent bankruptcy or revising their existing strategy. We see this with Amazon, who have recently built up vast infrastructures of warehouses and distribution centres to enable them to house growing inventories of product lines which rely primarily on brand-name identification. Their future success will depend upon their ability to estimate the amount of inventories required in order to meet demand, at the right price, without overstocking - difficulties faced by the majority of old-style retailers.

In the technological ferment that surrounds the notion of the new economy, two staples of the old economy – marketing and delivery – have been seriously under-estimated. In order to generate sales, the consumer needs to know that the seller exists, they also have to be selling their products at a competitive price and deliver or despatch those goods within a time that is deemed reasonable. This is very much reliant on a core element of the old economy – delivering goods in delivery vehicles.

3.2 Myth of Success

This myth questions our conventional understanding of both success and failure. We argue that the mainstays of success in a traditional environment – fundamentally based on profit-making2 – are conveniently ignored or swept away in the virtual market-place. As one newspaper reporter commented: "The British b2c sector is awash with companies with absolutely no experience of retail. With one idea and an inexperienced management team, they launch Ice Online for Eskimos after raising £100m from venture capitalists" (Barrow, 2000). And so we see Amazon.com, probably the best-known example of a 'successful' virtual shop counter and an embodiment of the virtues of a dot.com company, still failing to report any profits (Sauer and Burton, 1999). Yet time is running short for the likes of Amazon, who have previously been able to rely on funding from investors. It seems probable that this funding will soon

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¹ The names of these 'ages' come and go, so we have seen the steam age, the space age, and we are now in the midst of the information age or digital age – the naming conventions depend upon who is doing the telling, but they all imply a break with the past. (cf. Bell, 1973)

^{2 &}quot;The restless never-ending process of profit-making - alone - is what the [Capitalist] aims at. This boundless greed after riches, this passionate chase after exchange-value, is common to the capitalist and the miser; but while the miser is merely a capitalist gone mad, the capitalist is a rational miser." (Marx, 1998: 221).

evaporate as the 'dot.com implosion' means access to venture capital is less likely and they will have to replenish finance through their own business operations.

Amidst the euphoria of dot.com 'mania', some basic rules of the old economy regarding the success and failure of enterprises were suitably forgotten. Success was an outright assumption. This ignored some fundamentals, such as that in the old economy 50% of all new businesses fail within the first four years (Keegan, 2000). This, combined with the fact that new Internet companies were largely run by the young and inexperienced, operating amongst unknown terrain, meant that the failure rate for dot.coms was inevitably going to be higher than average. But just as these new companies are upheld as representing endless possibilities for success, a type of success that is accessible to all, we witness this success is often short-lived. These companies that arise spectacularly overnight then undergo what amounts to a public cremation and mourning under a national spotlight, when they later fail.

3.3 Myth of the Entrepreneurial Geek

This myth suggests that much of e-commerce minimises links with physical infrastructures, thus enabling technologically savvy individuals or small, innovative firms to enter new and exciting markets, securing considerable wealth creation in a short time span. This concept has a strong anti-establishment flavour and is anchored in much of the culture that romanticised the hacker as a counter-cultural hero in the early 1990s (Ross, 1990).

On closer examination, we see that e-commerce remains principally about business-to-business interactions, as opposed to business-to-consumer, and most of the opportunities and challenges in the e-commerce arena relate to changes in the structures and processes of transactions between trading partners, (Hawkins et al., 2000). Not surprisingly, therefore, the earliest corporate promoters of e-commerce were firms already involved with EDI and VAN implementations. These 'early adopters' are the already powerful players who simply employ the new ICTs to their advantage in order to strengthen their existing base. This history, coupled with their visible market presence and high levels of confidence in their brands means that large established traders are frequently in commanding positions to lead e-commerce developments (Hawkins et al., 2000). The scalability and flexibility of the Internet yields similar advantages for both large firms and for small niche players and so there is little evidence that smaller or more specialised firms can reap disproportionately large cost savings from adopting an e-commerce approach.

As an example of this, we see Britain's top supermarket chain, Tesco, exercising a degree of caution before its official launch in May 2000 (Barrow, 2000). They spent five years testing their online delivery service amongst a cluster of ten different shops, before they were willing to venture nationwide. This is not to presume that online trading will thus become a guaranteed success at Tesco.com, just to note their caution in ensuring their business was cost-effective before launching themselves on a grander scale. When comparing the logic and experience of this large, established trader with new companies who had no trading presence before the launch of their web-site, the notion of 'first-mover advantage' becomes highly questionable.

Despite the difficulties faced by small traders, much of the dot.com publicity focuses on 'rags to riches' tales engendering feelings that large-scale success is not only possible, but there for the taking. This is very much at odds with research on technological innovations and the possible gains for SMEs. A multiple case research study conducted by (Levy et al., 1998) highlights their limited time for indulging in future business development, including the exploitation of technology. As a consequence, there is a reluctance for SMEs to spend on technology beyond the 'bare minimum' that is necessary for basic administration and transaction processing; so few SMEs have either the motivation or the capacity to introduce systems that would support IS-based innovation. Undeniably, internet commerce can offer some benefit to its adopters, but this depends on a number of pre-conditions, notably customer participation (Poon, 2000).

Sauer and Burton argue that, based on both empirical and theoretical evidence, 'online success is neither certain nor easy for retailers' (1999: 388) and they provide some statistics to illustrate the point. Whilst studies consistently show that on-line purchasing is on the increase, this is generally from a low base which amounts to only a small proportion of the population. The Internet shopping study conducted by Ernst &

Young reported that the number of US households that shopped online had increased from 7% in 1998 to 10% in 1998. Another 1% of households said they were 'very interested in shopping online in the future, whilst 7% said they were 'somewhat interested'. Despite this limited interest on the part of consumers, we hear a different story from retailers. In sharp contrast we note that the number of retailers selling online or intending to sell online more than doubled in the same period, from 34% to 76%. This huge gap in consumer interest and retailer provision suggests that competition for a small number of customers is likely to intensify, as opposed to providing a retailing nirvana whereby shop-keepers turn into an international supplier overnight.

This history does not bode well for SMEs if they are to jump on the dot.com 'bandwagon'. Indeed, the extent of the costs of gaining a significant web presence raises a number of issues for them, since most of the former do not have strong technological abilities in-house and thus will be unable to sustain participation. As Sauer notes, there is more to 'a successful web site than a corporate logo on a home page' (Sauer and Burton, 1999: 296) since it also involves maintenance (a huge resource in terms of traditional IS expenditure), could enhance competition by exposure to the global market place and, more than likely, will have a considerable impact on their existing business. Most ICT investments are long-term and the cost of maintenance and upgrades often far outweigh the initial outlay costs. This is especially significant for smaller enterprises where investment costs in new technology represent a proportionately higher segment of corporate revenue than those costs for larger organizations.

Initial indicators show that the shift of the locus of control from the producer to consumers heightens further competition in the electronic market. Users are now able to quickly and easily search the web for alternative suppliers, cheaper products, and quicker delivery. Hence, the tradition of customer loyalty, crucial for a number of SMEs (Reid and Jacobsen, 1998), now becomes largely irrelevant. Consequently, for many of the new Internet start-up companies they end up selling old economy goods at lower prices, using a fairly expensive medium.

The deconstruction of the myth of the entrepreneurial geek presented here, is not intended to imply that there are no opportunities for such people within cyberspace. The point is to highlight the problems of equating the availability of these opportunities with a fundamental change in the relationship between actors in the market-place, whether they be established or new, large or small.

3.4 Myth of the Virtual

This myth is concerned with the implications of the increasing automation of transactions and the subsequent denial of the material.

Various citations regarding impressive sales are speculative, often based on assumption that once sales 'take off' then the dot.coms will need far less resources than traditional 'bricks-and-mortar' retailers. Amazon argue that their 'success' is partly due to them needing no more than a third of the investment of traditional retailers for the same amount of sales. And so we hear claims that we are moving to a 'new economy', one that represents a fundamental shift from that of the industrial society to that of post-Fordism/postmodernism. This utopian view ignores the material requirements that persist *despite* the move to the virtual. For example, when buying a book online, the paper still has to be manufactured, the book needs to be mass-produced and boxed before it is stored in a warehouse until it is ordered and despatched to the consumer. The only difference here, as compared to the last 150 years or so, is the way in which the book is ordered – this, and only this, uses a different technology.

When considering business strategies for e-commerce, it is important to also consider the commercial transaction structures that operate within the traditional market-place. These involve: management of key transactions related to choice of product designs and configurations; provision of advertising and technical information; arrangement of supply logistics; and, specification of ordering and payment systems. These cannot be ignored in the electronic market-place. For e-commerce projects to become successful, they still need to face the (traditional) problem of reducing the costs of promoting, selling and distributing goods, yet achieve higher sales without incurring any additional costs. The ability to do this has not been successfully

demonstrated to date (Giga Information Group, 1999). Similarly, in a study of online banking (Methlie and Nysveen, 1999) it was shown that determinants of loyalty in the traditional market-place (primarily customer satisfaction and brand reputation) are just as important in the online environment.

Numerous e-commerce proselytisers suggest that the eradication of the majority of processes that now intervene between buyers and sellers in the conventional market-place, will enable direct connections, thus removing the need for the 'middle man'. Some sources even maintain that the need for human agents will disappear completely (Hess and Kemerer, 1994; Schmitz, 2000). Emerging evidence suggests otherwise, as we arrive at the increasing realisation that the situation is far more complex than was initially assumed, with variations from industry to industry (Crowston and Wigand, 1999, Grover and Ramanlal, 1999, Schmitz, 2000). For example, disintermediation is more likely to occur within the travel industry (Lewis and Talalayevsky, 1997) than within the real estate industry, which relies far more heavily on human intervention. This focus on e-commerce 'solutions' as a substitute for existing forms of business intermediation both over-emphasise and mis-specify the development trajectory of virtual trading (Hawkins et al., 2000). The notion that advertising and selling a product online will result in a large gain in efficiency through disintermediation is, quite simply, a fallacy (Hawkins et al., 2000; Pisanias and Willcocks, 1999).

3.5 Myth of the E-Consumer Profile

This myth focuses on the contradictory assumptions that presume the future of shopping is 'online' yet the participation of women, who are the primary, traditional shoppers, is failing to materialise in the virtual market-place.

The decision whether or not to buy a product in the conventional market-place is a complex one and is subject to all types of conventions and pressures (Edgell, 1996). For large numbers of consumers, the process of buying a product is, in itself, a social and cultural experience rather than a necessity that has to be endured in order to purchase the desired product. Whilst there is a lack of consensus and a great deal of hyperbole regarding the future potential of on-line shopping (CISCO, 1999), its success depends largely upon attracting more female shoppers (Ody, 1998). Online home shopping has its origins in the traditional mail order business where the typical profile is female, aged 25-44 years and in the C2DE socio-economic groups (Baxter, 1998). Yet if we look at the profile of the typical Internet user3 we see a very different picture: the archetypal Internet users are university-educated, 'thirty-something', males, commanding fairly substantial salaries (GVU, 1998; Ody, 1998). And so we see a gap, and a fairly substantial one, between the types of Internet users and the types of online shoppers (Richardson, 2000). The study of an online pilot project for a national department store conducted by Sauer and Burton (1999) revealed that online customers may be very different from their traditional customers. Whilst an Internet site provided access to two segments that were traditionally difficult to attract (younger, technologically competent men and older professional men), neither turned out to be a successful long-term prospect in terms of both sales and profits. This is in sharp contrast with the store's key customer segment – professional women who like to buy medium- to high-price fashion.

This gap between Internet users and online shoppers is even wider when we consider women's access to ICTs within the home. When reflecting on the issues of leisure access to computers, we see that women perceive them primarily as a family resource and hence their needs are not prioritised (Kirkup and Abbott, 1997). If Internet shopping is to become more popular, then this could further transfer women's leisure into an arena where resources are competed for (Green and Adam, 1999).

Clearly, women are not a homogenous group, yet when they use the Internet they prefer to search with a purpose, to communicate and to gather information. Lowest on their list of priorities is shopping and therefore developing an attractive and entertaining online version is unlikely to have much appeal for women. It would simply 'take the fun out of shopping', which for many women, remains a pleasurable and

105

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³ Whilst over the years the results show slight differences (more women users, more people at either end of the age spectrum), nevertheless, they still make the same basic point regarding a stereotypical profile

social experience (Bernstein, 1998). So whilst at present the potential for women to shop online is unknown, unless the business-to-consumer firms can convince women that much is to be gained by doing so, the much vaunted online shopping boom will fail to materialize (Ody, 1998).

4. DISCUSSION AND CONCLUSIONS

In this paper we have used mythology as a means of deconstructing the somewhat erratic dot.com market which been subject to booms and slumps. The generation of a number of myths has helped explain why analyst investors were able to generate such a frenzy over high-tech stocks, drawing in investors to initially funding these start-up companies, which, under different circumstances, would have never even been considered. Without doubt, all myths are rooted in some aspect of reality, but they are also used to shape the future, a future that is willing the e-commerce vision, and so problems arise when people base their decisions solely upon this mythology.

So, what is the significance of the mythology? And what are the implications? On one level, there is nothing new in the linkage created between enabling technologies and the notion of revolution. Over the years, various leading-edge technologies have become mythologised and glorified (Marvin 1988; Winston 1998). All have taken centre stage with the claims that a new and exciting age was about to emerge. Just as the telegraph would eliminate wars, the telephone would bring democracy, and television would educate the masses, the Internet and with it the new dot.coms is heralded as the technology which has the potential to profoundly affect many industries and the entire retail experience. The notion of transformation must be tempered by noting the hollow predictions about earlier technologies. Much of the discourse about the power of computing technology is blatantly utopian, framed by a 'genre of discourse' (Kling, 1996), with a limited number of themes being explored. Many of these writings shy away from the more difficult question of what is happening in reality, preferring to opt for speculation about future possibilities (George and King, 1991). Experience should tell us that people often use technologies in far too complex ways for neat predictions to come true as they fail to deliver the promises of market researchers and computer vendors. Whilst the growing ICT market represents the potential for radical change, perhaps we should exercise a degree of prudence and remember that the gold-rush of the 1920's ended with the Wall Street Crash in 1929.

REFERENCES

Barrett, M. and Walsham, G. (1999). "Electronic Trading and Work Transformation in the London Insurance Market." *Information Systems Research* 10(1): 1-22.

Barrow, B. (2000) The Grit to Make it Click, *Dotcom Telegraph*, 19/10/2000.

Barker, T. (2000) E-tailer Boxman close to liquidation, FT.com

Baxter, J. (1998) Home Shopping, Keynote Market Report.

Bell D (1973) The Coming of Post-Industrialist Society: A Venture in Social Forecasting, Penguin, Harmondsworth.

Bernstein, D (1998) Will home shopping throw a lifeline to the independents? FT European Retail Analyst, 10-11.

Bolman, L. and Deal, T. (1984) *Modern Aproaches to Understanding and Managing Organizations*, Jossey-Bass, San Francisco.

CISCO (1999) The Impact of the Internet economy in Europe: a Study into the Social Implications of the Internet, *Henley Centre Report*.

Crowston, K. and Wigand, R. (1999) Real estate war in cyberspace: an emerging electronic market? *International Journal of Electronic Markets*, 9, 1-8.

Daniel, C. (2000) Downside for dotcom directors Financial Times 27/09/00

- De Kare Silver M (1998) E-shock. The electronic shopping revolution. Strategies for manufacturers and retailers. Macmillan.
- Edgell, S., Ed. (1996). Consumption matters: the production and experience of consumption. Oxford, Blackwell.
- Ferguson, N. (2001) The Cash Nexus: Money and Power in the Modern World, Penguin.
- Freeman, C. and Louca, F. (2001) As Time Goes By: From the Industrial Revolutions to the Information Revolution, Oxford University Press, Oxford.
- George, J. F. and King, J. L. (1991) Examining the computing and centralization debate, *Communications of the ACM*, 34, 63-72.
- Giga Information Group (1999) available from www.gigaweb.com/marketing/gpr/ecomm_trillion.htm.
- Goodley, S. (2000) E-delivery firms running out of funds *Dotcom Telegraph* 12/10/200
- Green, E. and Adam, A. (1999) On-line leisure: gender and ICTs in the home, *Information, Communication and Society*, 1, 291-312.
- Grover, V. and Ramanlal, P. (1999) Six myths of information and markets: information technology, networks, electronic commerce, and the battle for consumer surplus, *MIS Quarterly*, 23, 465-495.
- GVU (1998) Tenth WWW User Survey, available at www.gvu.gatech.edu/user_surveys.
- Hawkins, R., Mansell, R. and Steinmueller, W. E. (2000) Controlling electronic commerce transactions In *Mobilising the Information Society: Strategies for Growth and Opportunity* (Eds, Mansell, R. and Steinmueller, W. E.) Oxford University Press, New York, pp. 197-239.
- Hess, K. and Kemerer, C. (1994) Computerised loan origination systems: an industry case study of the electronic markets hypothesis, *MIS Quarterly*, 18, 251-275.
- Hirschheim, R. and Newman, M. (1991) Symbolism and information systems development: myth, metaphor and magic, *Information Systems Research*, 2, 29-62.
- Keegan, V. (2000) One year on ... The Guardian, 27/01/2000, 13.
- Keegan, V. (2001) eToys' move sends a shiver down the spine *The Guardian* 08/03/01
- Kirkup, G. and Abbott, J. (1997) *The gender gap: a gender analysis of the 1996 computing access survey*, Open University, Milton Keynes.
- Kling, R. (1996) Reading "All About" Computerization: How Genre Convensions Shape Non-Fiction Social Analysis, *The Information Society.*, 11, 147-171.
- Levy, M., Powell, P. and Yetton, P. (1998) In *Information Systems: Current Issues and Future Changes* (Eds, Larsen, T., Levine, L. and DeGross, J.), pp. 377-392.
- Lewis, I. and Talalayevsky, A. (1997) Travel agents: threatened intermediaries?, *Transportation Journal*, 36, 26-30.
- Marvin C (1988) When Old Technologies were New, Oxford University Press, Oxford.
- Marx, K. (1998) Capital, vol I, 221, the Electronic Book Company Ltd.
- Methlie, L. B. and Nysveen, H. (1999) Loyalty of on-line bank customers, *Journal of Information Technology*, 14, 375-385.
- Ody, P. (1998) *Non-store retailing: exploiting interactive media and electronic commerce*, Financial Times Retail and Consumer Publishing.
- OECD (1998) The Economic and Social Impacts of Electronic Commerce, OECD, Paris.

- Pisanias, N. and Willcocks, L. (1999) Understanding slow Internet adoption: 'infomediation' in ship-broking markets, *Journal of Information Technology*, 14, 399-413.
- Poon, S. (2000) Business environment and internet commerce benefit, *European Journal of Information Systems*, 9: 72-81.
- Reid, G. and Jacobsen, C. (1998) The Small Entrepreneurial Firm, Aberdeen University Press, Aberdeen.
- Richardson H (2000) Popping to the virtual shop gender and home e-shopping in the UK. in *Women, Work and Computerization. Charting a Course to the future*: The proceedings of the IFIP TC9 WG9.1 Seventh International Conference on Women, Work and Computerization. June 8-11, 2000, Vancouver, British Columbia, Canada. Edited by Ellen Balka and Richard Smith. (Kluwer Academic Publishers)
- Ross, A. (1990) Hacking away at the counterculture, *Postmodern Culture*, 1, 1-43.
- Sauer, C. and Burton, S. (1999) Is there a place for department stores on the Internet? Lessons from an abandoned pilot, *Journal of Information Technology*, 14, 387-398.
- Schmitz, S. (2000) The effects of electronic commerce on the structure of intermediation, *Journal of Computer-Mediated Communication*, 5.
- Scott, S. V. (2000) IT-enabled credit risk modernisation: a revolution under the cloak of normality, *Accounting, Management and Information Technologies*, 10: 221-255.
- Webster, F. (2000) Information, capitalism and uncertainty, *Information, Communication & Society*, 3, 69-90.
- Wigand, R. (1997) Electronic commerce: definition, theory, and context, *The Information Society*, 13, 1-16. Winston B (1998) *Media, Technology and Society*, Routledge, London.