

Introduction

Leading economic commentators, such as Alvin Toffler, have predicted a “third revolution” – the “information revolution” – carrying the society forward in another major leap equivalent to the earlier agrarian and industrial advances. Economic historians may well look back on the final five years of 20th century as the defining period in that revolution.

According to Diaz, Hoffmann and Muron (1999) the origins of the Internet are normally traced back to developments undertaken by the American Department of Defence in the 1960s.”Many of the applications, which were to prove so successful later, date already from that time.”

Kosiur (1997) states “for some time now, large business enterprises have used electronic commerce to conduct their business-to-business transactions. Electronic Data Interchange (EDI) on private networks began in the 1960s, and banks have been using dedicated networks for Electronic Funds Transfer almost as long. Recently, however, with the increased awareness and popularity of the Internet, electronic commerce has come to encompass individual consumers as well as businesses of all sizes.”

During the period of spring from its original environment there were two moments of crucial importance. They were both linked quite closely to the widespread introduction of personal computers. One was the moment when the Internet became the “network of choice” for linking all of the desktops inside the companies. The other was the moment when access from the home to the Internet via telephone dial-up became a market in itself.

Blair (1999) argues that there is no doubt that electronic commerce is going to have a profound effect on business, Government and consumers and on the way people live and work. E-commerce presents enormous challenges. Countries that wholeheartedly embrace e-commerce will benefit from improved national economic performances. Those that do not risk seeing trade ebb away to low cost competitors elsewhere in the world.

“There is no question that E-commerce will represent a significant portion of the global economy over the next five years” (Colony

George, 1998). “To achieve its full potential, businesses need to move quickly to establish market leadership, while governments must nurture electronic

commerce with supportive laws and policies. If a favorable climate can be established, Internet commerce will reshape the global economy.”

Source: [Aurel Voiculescu, MBA dissertation](#)

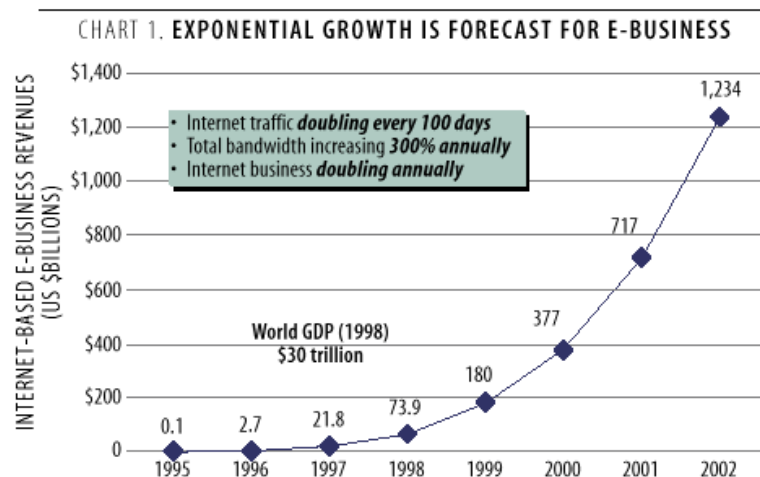


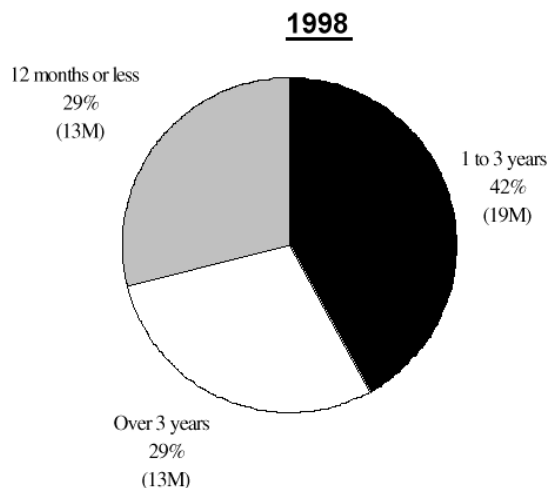
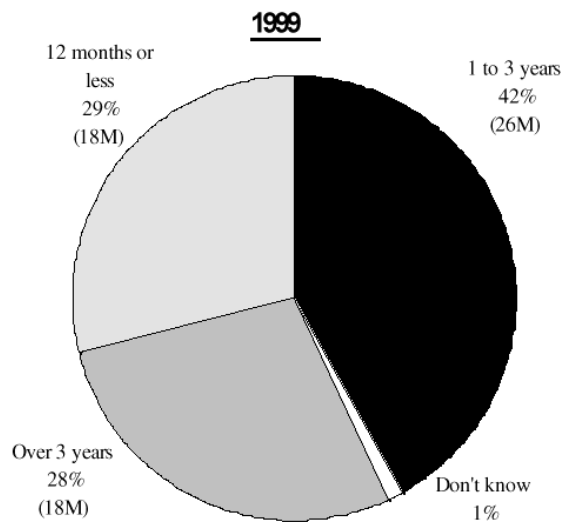
Figure 1 Exponential Internet Growth
Source: Deloitte Research, 2000, On-line B2B Exchanges, The new economics of markets

Internet growth

The explosive growth of the Internet, beyond its initial base in the military and academic communities, has been unprecedented. Kosiur (1999) states that over the past few years, the number of computers attached to the Internet has been doubling annually.

Europe, Japan and the other developed countries are on the similar growth curve of adoption, some one to three years behind the USA. According to the NUA Survey (1999) in the USA and Canada 102 million people have access to the Internet and worldwide usage exceeds 179 million.

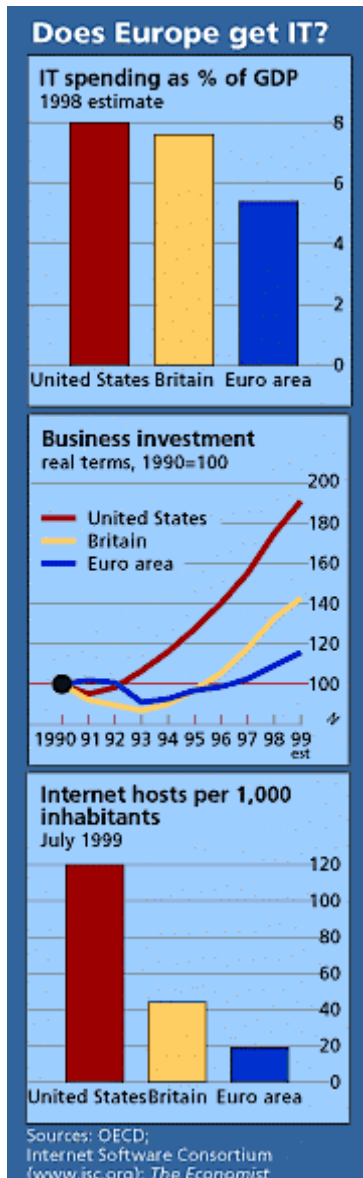
% saying when they first went online from home



How long ago did you first go online at home?

*Figure 2 Percentage of the people when they first went on-line from home
Source: AOL/ Roper Starch Cyber study, 1999*

According to AOL/ Roper Starch Cyber study (1999) online consumer population continue to grow dramatically. The total on-line consumer population has grown from 45 million in 1998 to 63 million in 1999, an increase of over one-third. While 1998 realized approximately 13 million new arrivals in 1998, this number has grown to about 18 million in 1999.



According to the Economist Survey (1999) three quarters of all e-commerce currently takes place in the United States. The country also accounts for 90% of commercial websites. The Economist (2000) explains the reasons behind American Economy's recent boom:

- There has been a surge in business investment, especially in IT equipment
- Many firms have restructured embracing the Internet to boost efficiency
- Flexible labor markets, open product markets made it easier for entrepreneurs to start new firms

“Although European firms are now embarking on a high-tech spending spree, they lag far behind the

United States. Total

spending on IT

with around 8% of GDP

in America, and 7.5% in Britain. Overall five times as many people per 1000 population have access to the Internet in America as in the Euro area.” (The Economist, 8th of February edition)

Forester Research (1999) argues that e-business in America is about to reach a threshold from which it will accelerate into “hyper-growth”. ”Inter-company trade of

goods over the Internet, it forecasts, will double every year over the next 5 years, surging from \$43billion last year to \$1.3 trillion in 2003. If the value of services exchanged or booked on-line were included as well, the figures would be more staggering still.”

In some ways Europe and Asia are at a disadvantage compared with America. Credit cards are far less widely used, which is one reason for the success of mixing online (to place orders) and offline (to pay and pick them up) business. Another problem is telecommunication costs. In Europe these can be five times as high as in America, where local calls are often free. Despite the success of “free” Internet service providers in Europe, Boston Consulting Group reckons it still costs twice as much there as in America to surf the web.

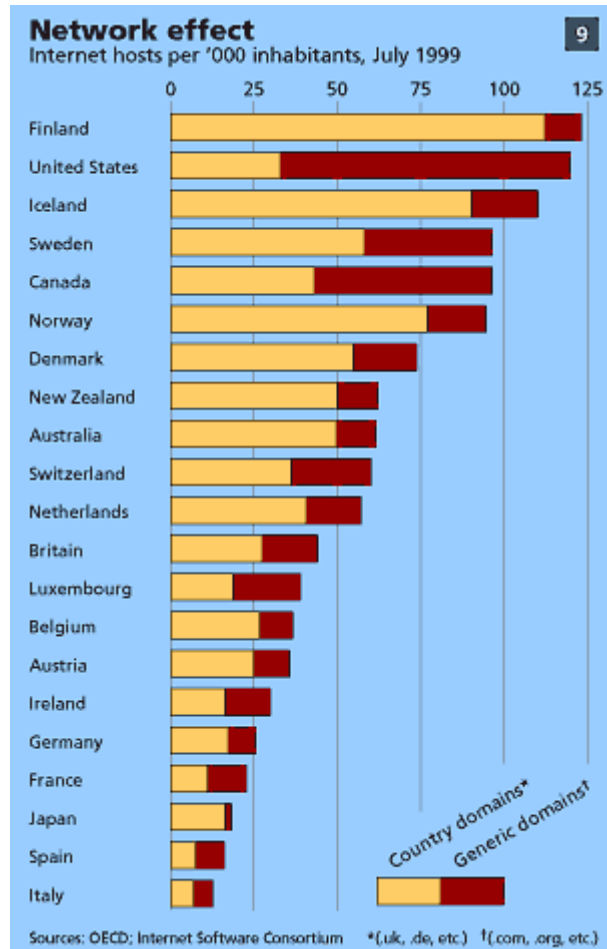
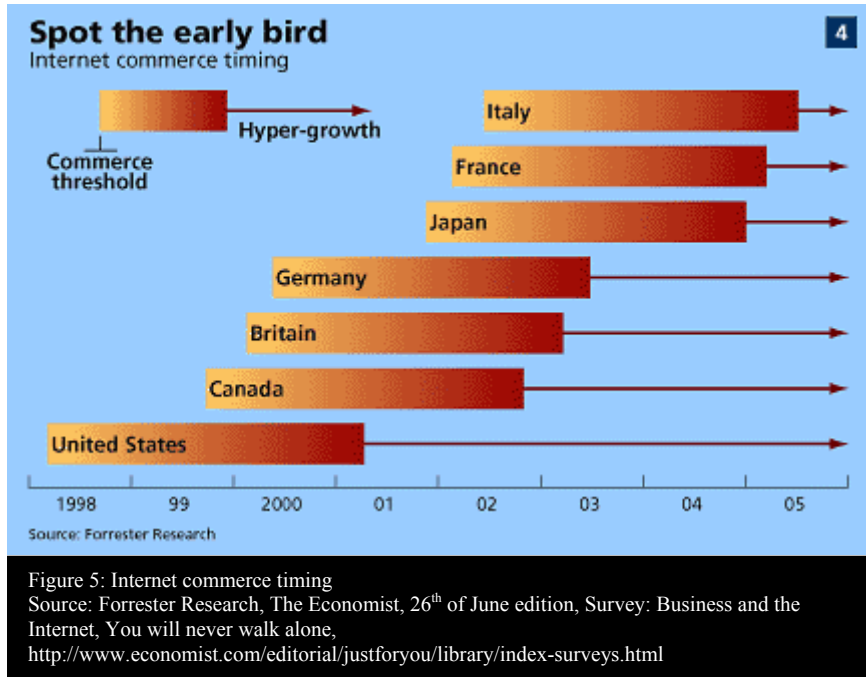


Figure 4 Internet hosts per 1000 inhabitants
Source: The Economist, 1999, Survey E-commerce, First America then the world, source: <http://www.economist.com/editorial/justforyou/current/index-survey.html>

“But Europe and Japan could now find themselves at an advantage, thanks to their lead over America in mobile telephony.” Brent Hoberman (1999), founder of the Lastminute.com, a London-based website dealing in travel, entertainments, and gifts, argues “Europe can join at the next level up.”

Forrester Research (1999) expects Britain and Germany to go into hyper-growth stage of e-business about 2 years after America, with Japan, France and Italy a further 2 years behind.



“And just as countries will move into e-business hyper-growth at different times, so too will whole industries. Computing and electronics embraced the Internet early and

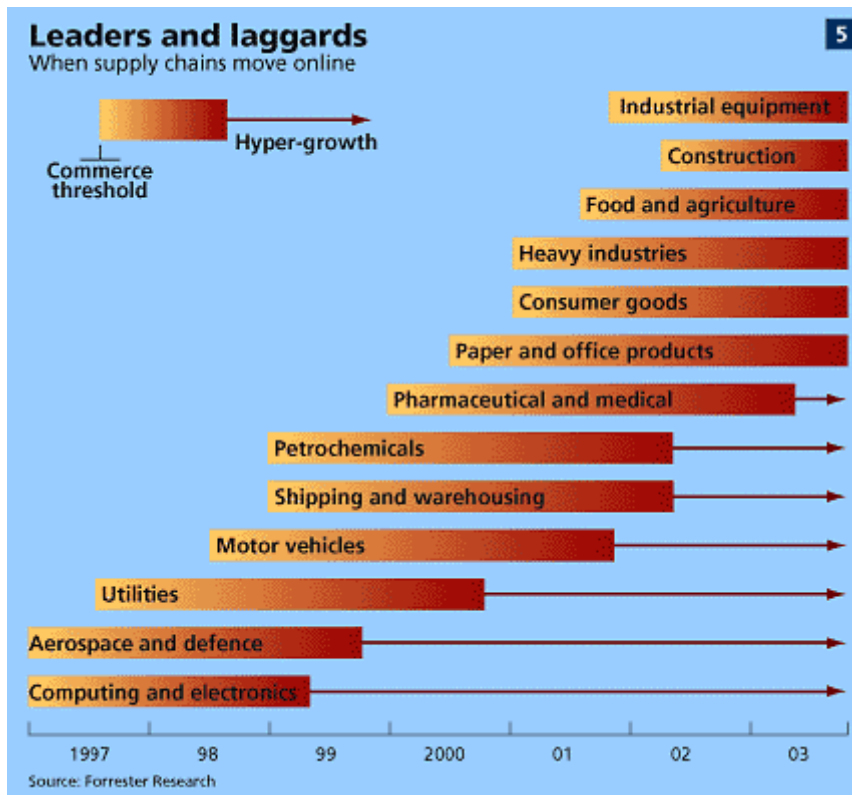


Figure 6: Timing of e-commerce fulfillment for different industries
 Source: Forrester Research, *The Economist*, 26th of June edition, Survey: Business and the Internet, *You will never walk alone*, <http://www.economist.com/editorial/justforyou/library/index-surveys.html>

will therefore reach critical mass earlier than the rest. Aerospace, telecoms and cars are not far behind. Other conditions for early take-off include the ready availability of the right kind of

software, computing platforms and system-integration expertise.”

Source: [Aurel Voiculescu, MBA dissertation](#)

KPMG Consulting (1998) states that the “Internet has the potential to create genuinely global market – one in which companies will be exposed to the full glare of competition. Given the general recognition of the role of electronic commerce in overcoming national, geographical and temporal boundaries to trade, it is now clear that companies that wish to be at the forefront of global competition in their particular markets cannot afford to ignore electronic commerce any longer.”

INTERNET ACCESS BY REGION – JULY 1999

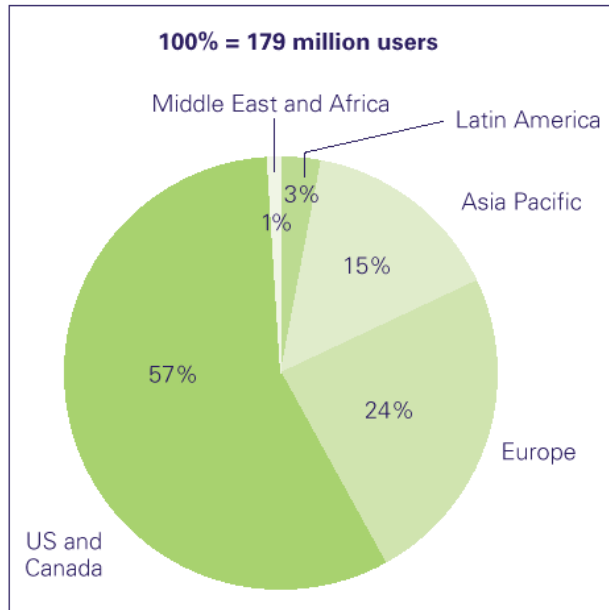


Figure 7: Internet access by region – July 1999
Source: NUA Surveys, 1999

Source: [Aurel Voiculescu, MBA dissertation](#)

Summarizing the above forecasts, Cisco (White Paper, 1998) states that the “new economy is the Internet Economy.

The Internet Economy is reshaping the fortunes of the businesses, countries and people, leveling the playing field for everyone, and driving the most significant economic shift since Industrial Revolution.”

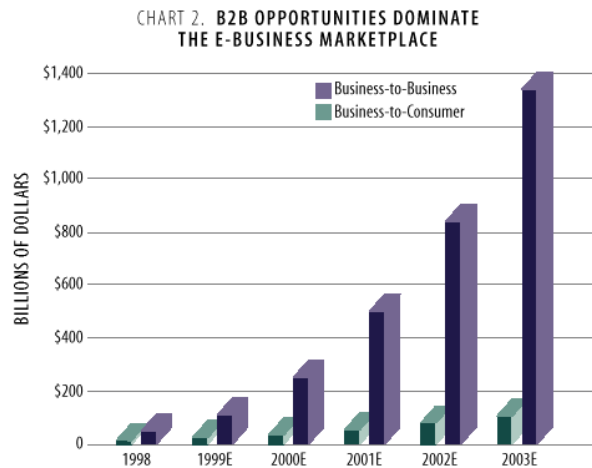


Figure 8: Business-to-Business and Business to consumer market place
Source: Deloitte Research, 2000, On-line B2B Exchanges, The new economics of markets,

As the details of the new digital economy emerge, many analysts are predicting that 2000 will be the year of explosive Business-to-Business Internet development (Deloitte Consulting, 2000). As a result of its breadth and depth it will encompass far more than electronic procurement or automated Business-to-Business purchases and sales; it will become a new environment of Internet-based online catalogs, auctions, and exchanges with significant financial implications to many Business-to-Business market participants.

By compiling statistics on the current and near-term structure of the demand-side of electronic commerce, the following conclusions are reached:

- The volume of business-to-business electronic commerce greatly exceeds that between business and consumers. Thus, while consumer issues are important and represent a potentially large market in the future, this should not obscure the importance of policy issues that are more business specific such as adapting commercial business codes to this new environment, trans-border data flows between businesses, establishing new means for engaging in contracts (e.g. digital signature, authentication and certification) and improving the reliability of the infrastructure to meet the quality –of-service demands of businesses.
- Within the business-to-consumer segment, the leading activity is entertainment (e.g. adult entertainment, online games and gambling)
- In the business-to-consumer markets, digital products such as software, travel services, entertainment and finance are the leading electronic commerce products
- Electronic commerce is currently relatively small but it is growing at an exponential rate.

Source: [Aurel Voiculescu, MBA dissertation](#)