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Chapter 1 : Browse subject: Information superhighway | The Online Books Page

Within a given value chain each business will search for transactions that provide advantage over its competitors, that will provide competitive differentiation that.

Executive Overview Society cannot fully benefit from the digital economy until convenient and affordable broadband connections are available to all Americans. Multimedia applications for enhanced distance learning, e-commerce, teleworking, telemedicine, home networking, and electronic entertainment with high-definition programming will not reach consumers without these high-speed connections. So, reviving interest in the information superhighway and its last-mile access is needed to encourage the development and purchases of new technology and services, and to benefit both consumers and the economy. And I will argue that America needs an initiative equal in importance to the space program, which was kicked off in a speech by John F. Kennedy at Rice University, where he said: We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard, because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one which we intend to win. The Act was supposed to encourage open competition in all aspects of the telecommunications industry, from the networks themselves to the services delivered across them, but since no real network competition resulted, the Baby Bells suppressed their DSL digital subscriber line technology for over 15 years to protect their high-margin T-1 services. And setup can require professional installation, with the added cost of a truck roll. While all of these obstacles are slowly being addressed, more formidable obstacles include incumbent competitors, lobbyists, and the political process. It seems that the primary mistake of the Telecom Act was viewing the network as a commodity instead of as the necessary infrastructure for delivering commodity services. The impact of that viewpoint and the resulting delays has been severe. America is already starting to lose its competitive edge in world technology markets, and we have seen a dramatic downturn in technology and telecommunications sectors. TIA President Matthew Flanigan describes the impact in his November letter to the Chairman of the FCC, asking that the commission promote widespread broadband deployment and remove regulatory hurdles that get in the way. These developments have precipitated an unprecedented slashing of research and development budgets that seriously threatens the future of industry innovation, our global leadership in technology, and in some very important respects, the very security of the United States. So what has been the cost of delay, and what is the opportunity if we jump-start the vision? National Security and Maintaining World Technology Leadership The United States currently leads the world in the total number of Internet users, at just over 100 million, but the growth rate in new users is slower than in other countries, and some of those other countries have significantly passed the U. Several studies predict that the world population of Internet users will exceed one billion by 2005. We are falling further behind other world competitors in terms broadband subscribers per capita, and remain the only G-7 country so-called Group of Seven industrial nations without a national broadband policy. If we are to maintain our technology leadership, then it seems obvious that the original thinking behind the Information Superhighway must be revived, all market inhibitors must be removed, and new incentives market accelerators must be created. To do that, it created a broadband strategy and offered funding for a high-capacity backbone network. The government also provided low-interest loans to companies investing in new infrastructure and included other incentives to drive broadband into rural areas. That compares to every 30 months for Americans, where we may only see a dozen or so other people each day. And will it keep that way? One of the great advantages our democracy has is its rich mix of different nationalities, cultures, and religions, and that variety has led to more creative solutions to problems. By comparison, nations with just one ideology, religion, or way of thinking tend to have a more limited set of experiences to draw upon when making decisions to exploit opportunities and address problems. The diversity of our nation can be an advantage, but it also means that many people want to influence political outcomes,

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and that can slow the decision process. Prosperity in a Digital Economy In the Information Age, nations that invest in telecommunications will have a distinct advantage. This section covers some of the areas improved by a high-speed information superhighway, including commerce, education, health care, and entertainment. Electronic Commerce The U. While this estimate is rudimentary at best, and the U. B2C portion is a small fraction of the total, the magnitude of the potential loss or opportunity should at least get your attention. An important reason for the decline is that the U. A recent OECD study examined why some countries prosper more in the Information Age than others and concluded that factors include more than just information and communication technologies ICT. They found that policies that engage a mix of ICT, human capital, innovation, and entrepreneurship, as well as fundamental policies for controlling public finances and inflation while instilling competition, seem to yield the best results over the longer term. This implies that a U. Distance Learning Much can be said about enhanced Distance Learning and how video-rich media will improve the lifelong learning process, but first let me stress that broadband is just part of the solution, and learning can also benefit from more modest computers with no network, especially with very young children. It then got into counting, with simple rewards when he pressed 3 to match three boxes or 8 to match eight boxes. Slowly, it led him into addition, subtraction, multiplication, division, and even fractions, and all of this was done on the original IBM PC 4. Multimedia Edutainment Most experts agree that children learn more and more quickly when entertained. Barney talks to kids in spoken phrases, sings songs, and plays games, and to keep them engaged, as they grow older, Barney communicates through a wireless network to expand its capabilities. Networked Multimedia Networking does more for education than simply improving the logistics of shipping content and making sure that students always have access to interesting courseware. It also ties many students together electronically with inspiring teachers and fosters competition, mentoring, and real exploration. The program Ulysses encouraged students to play these different ideas against each other to gain a deeper understanding of this epic poem. The Robot Wars concept has since trickled down to high schools, middle schools, and hobbyists; and the contests are broadcast on TV. Eventually, global networks with real-time language translation will let students speaking different languages compete with each other or cooperate on projects. Meaningful Career Development Networked multimedia also lets students experiment with things that would be too dangerous or too expensive otherwise. Networked multimedia makes it easier to explore potential careers and find ones that fit your natural talents, rather than just sliding into whatever opportunity pops up. Lifelong Learning Broadband networks and multimedia education also improve the lifelong learning process, which is especially important now, since employees no longer work for one company for their entire career, and few companies provide employee development education. Interestingly, the number does not include full-time teleworkers since they work in only one place, the home. And it does not include people who run a home-based business. For years, advocates have argued that teleworking reduces traffic, saves time and gas, helps the environment, makes it easier for companies to find and employ qualified workers, and generally improves the quality of life for employees. For one, telework usually requires broadband connections equal in speed to office networks and that can support applications like video conferencing. But there are also other factors, including management fears and political barriers. While teleworking does offer many opportunities, it also poses a threat to building owners and cities unwilling to change, not to mention the car manufacturers, oil industry, and others that fear they may be affected. The newest buildings feature advanced networking infrastructure built into hollow walls, hung ceilings, and raised floors, to connect data and video transmission equipment. So, just as electricity enabled the elevators and air conditioning needed to draw workers together into tall office buildings in big cities, high-speed telecom networks are enabling a move away from cities. Broadband networks also let workers move out of offices in tall buildings and into ones at home, at their customer, or in their car. And this trend has attracted as many opponents as champions. The Impact on Employers Effective use of teleworking takes planning, investment in networks and equipment, changes in management style, and compassion for employees. Network connections now transform hotels and airports into work centers during layovers or while waiting for flights, and cellular phones mean that managers expect

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to reach us anytime. So years ago, the company pushed them out into the field to spend more time with customers or to work from home. Telemedicine Policy makers worry that healthcare costs are already rising, and as baby boomers retire it will get much worse and put a severe strain on the economy. This is not the time to champion universal health coverage, however, since the cost of that coverage will go up dramatically. Apps such as remote health monitoring already help the elderly or infirmed remain productive and stay home longer, instead of crowding them into assisted living facilities. In the Network or the Application? Because of the large file size, consider its value compared to an emergency alert from a security sensor or health monitor. With no network constraints, they were the first to download digital music and videos. Between these extremes are other models like narrowcast and pay-per-view. With Internet-based VoD, there should be less demand for the hundreds of programs that are pushed to each wall outlet. While households benefit from the ability to access hundreds of channels so people in different rooms can watch different programs, the individual TV does not, so I see a strong future in distributing video from a master set-top box over wireless networks. MPEG4 lets more applications benefit from video content and more service providers offer it. This implies that carriers could eventually send HD content over enhanced cable and VDSL networks without extending fiber to each home. In our house, for example, we read the online program guide and decide what to record and watch later. That way we can bypass the commercials and watch a minute program in just minutes. A nasty byproduct of this ability to skip commercials is that programs are filled with more of them, and in some cases more time is taken up by the ads than by the content. Converged and Bundled Services Since broadband networks can carry any digital content, they enable the convergence of voice, data, photos, music, and video, as well as the concept of service bundling. This convergence will eventually result in lower subscription costs and improved services with new capabilities, and all carriers are moving in this direction. Many will go out of business anyway, since most consumers will eventually have only one provider that bundles all of their telecommunication services. I think it will occur much sooner since new competitors offering service bundles will make commodities of individual voice, TV, and Internet services. Most people will get these core services from the same company, and incumbent carriers will either join the convergence trend or become extinct. Another way to look at the opportunity is to move future projections in one year earlier, meaning that benefits come in , benefits come in , and so forth. The value of a national broadband policy sure adds up fast! And this rudimentary exercise only considered e-commerce. Outsourcing Studies have long shown that the information technology IT sector is critically important to the health of the U. IT also generated jobs, with 1. Since IT is now at the center of an increasingly service-oriented economy, these jobs also get cut when work is outsourced offshore. An unusually large number of people have been unemployed for months, with almost 1. These high levels of unemployment put strain on our economy and people still working, since they must contribute, through taxes, to the survival of the unemployed. Globalization and Offshore Outsourcing Even more disturbing was a Business Week article that described a new round of globalization and how the driving forces of 1 digitization, 2 the Internet, and 3 high-speed data networks are enabling telework and outsourcing and sending upscale jobs offshore. That disparity also contributes to falling U. And if this is not disturbing enough, outsourcing experts say the job migration has only just begun. Instant Messaging IM is another reason for close proximity. Furthermore, experts say a high-speed information superhighway system could eliminate half of the travel on physical roads. Using that analogy, we think nothing of getting into a car and driving to work, flipping a light switch, turning on a faucet, or picking up a phone to call someone; but these services all depend on infrastructure and agreed upon standards that took decades to unfold. The information superhighway is evolving much like traditional highways that were paved as traffic and demand increased. It may be helpful to look at who paid to build and maintain our highway system, to see if there are parallels that should be followed. Individual homeowners and businesses privately funded many roads. Cities and states funded others. And the Interstate Highway System comes under the U.

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Chapter 2 : Internet & the Information Superhighway - DigitalSuperhighway

It is becoming increasingly difficult to accurately delineate the borders of today's organizations. Does the border simply encircle the actual internal organizational structure, or does it extend to include tight and strategic relationships with customers and suppliers? Does it extend to include.

The Internet was originally cited as a model for this superhighway; however, with the explosion of the World Wide Web, the Internet became the information superhighway. I-way, also known as the electronic, interactive, or multimedia superhighway has become the leading buzzword that has no precise definition. I-way can be portrayed as the high bandwidth, interactive pipeline capable of simultaneously supporting a large number of electronic commerce applications. Multinational companies have started mergers and investments in technology to construct the new infrastructure. Market Forces influencing I-Way 1. Demands and Requirements of Market Participants The success or failure of any innovation, product or service is a factor of Market forces. They are information service providers who are commercial, government or private providers or publishers of information goods and service. It also includes value added information providers, including third party brokers and other intermediaries, as well as originators or services who add value by packaging or building on services provided by others. We may see that users and firms play multiples roles as consumers and producers of information. These roles are not fixed and can be a major reason for why many companies are merging or realigning themselves. The companies which once focused on one type of user role communication, entertainment or information now seek to broaden their markets and serve as many users as possible. The Telecom companies want to see an I-way that can support a variety of applications: While the cable industry wants to expand services from TV programming or pay per view services such that the consumer can pay bills, shop, reference encyclopedias, or check stock prices " all staying at home. Most cable companies tend to see the I-way as a channel one way distribution vehicle. The online services and computer companies want to see an I-way that involves a lot of two-way interaction such as electronic mail, information search and retrieval, and more forums, chat lines and BBS. The demand and requirements various participants place on the network infrastructure are bound to be very different. To support as many roles as possible, an increasing number of alliances are developing between telecommunication, cable television and entertainment companies. These partnerships provide synergy to spur consumer demand for advanced information, entertainment services and the equipment and devices necessary to provide them. Strategic Alliance and the I-Way Infrastructure To ensure construction of a broadly useful I-way, strategic planning should take into account the needs of the communication, entertainment and information sectors. The resource requirements of building these three segments of the I-way are driving companies to make maximum use of existing facilities through alliances to control costs and create test markets. Alliances, particularly among large firms are dominant as they reduce risks, spread costs and allow firms to acquire costly expertise in different areas instantly. They cut across industry lines a diversity suggesting that member companies will perform different roles within the alliances. Many alliances are international, signaling that the I-way will be global from the start. These mergers are expected to result in significant long term opportunities to achieve economies of scale by providing cable and telephony access to more customers. Moreover, it would give the new alliance increased control, from both cost and timeliness perspective in the purchase of content or programming. Visited times, 2 visits today More from my site.

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Chapter 3 : himanshu goel mba: MODEL FOR E-COMMERCE & INFORMATION SUPERHIGHWAY

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The E- Business model would be closely tied to the mission of the organization. Once the organization has decided what it aims to do one of the models that have been explained below may be adopted. Category Killer A category killer would use the Internet to define a new market by identifying a value proposition for the customer or create a new value proposition. The organization which does so, would have the first mover advantage in the market and would stay ahead of the competition by continuously innovating. Channel Reconfiguration This model would use the Internet as means of reaching the customers and suppliers and to conduct, transactions on them. This model supplements the legacy distribution and communication channels. The advantage of such a model is decreased time to market. Such a model would invest in end-to end process integration. This would require a major application overhaul to develop an integrated infrastructure that allows the processes to flow seamlessly, which in turn should lead to reduction of costs of products by eliminating, redundancies of operations and enhancing the scope of each operation. The advantage of such a model is decreased time to market, and minimizing the total product cost. Transaction Aggregation This type of organization would create an electronic commerce and payment infrastructure that integrates their existing transaction processing capabilities with e -business capabilities. This would facilitate a client in carrying out all the steps of purchases - searching, comparing, and selecting and paying online. These intermediaries may fulfill the following roles Support buyers in identifying their needs and finding an appropriate seller. Provide an efficient means of exchanging information between both parties. Execute the business transaction. Microsoft Expedia and eBay. Infomediary An infomediary provides specialized information on behalf of producers of goods and services and their potential customers. That is, it serves to bring together the customer and the supplier of goods. An example of an Infomediary is priceline. Event Aggregation This model would serve to simplify a major purchasing event such as buying a house, by offering the customer a unified front-end for purchasing related goods and services from multiple providers. It provides convenience to the customer and hence enhances the relationship between the customer and the company. Market Segment Aggregation The organization defines a customer base and builds a comprehensive suite of services tailored to that customer type. A Market segment aggregator, who could get all the clearances that are required, could possibly handle this work. Such an arrangement provides seamless integration within and between enterprises, tying together large islands of information systems. The advantage is that, when the customer keys in his requirement over the net, it would be transmitted to every process center in the value chain without much loss of time. This way the organization can rapidly react to events. Stage of Analysis Analyses of special requirements for your application 3. Stage of Design and Layout Visual displays based on your ideas 4. Stage of Transformation Realizing requirements and ideas in the software solutions 5. Stage of Implementation Full implementation of your e Business solutions Using Value Chains to Model An e-Commerce Business A value chain for a product is the chain of actions that are performed by the business to add value in creating and delivering the product. For example, when you buy a product in a store or from the web, the value chain includes the business selecting products to be sold, purchasing the components or tools necessary to build them from a wholesaler or manufacturer, arranging the display, marketing and advertising the product, and delivering the product to the client. Winfield Treese and Lawrence C. Stewart, the authors suggest breaking down the aspects of your business into four general value-chain areas: Each of these Process Chart diagrams represents all or part of a Process Thread. We can create a Process Decomposition diagram to model the hierarchy of our process threads to elementary business processes, and the value-chain areas that they are contained within. Create a Process Decomposition diagram. Drag-and-drop them onto the diagram workspace,

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and assign them to the value-chain Primary Process Groups according to the guidelines above. According to Treese and Stewart, looking at the value chain for your business helps you to define areas of focus – what your company is good at, or where you should concentrate your efforts to gain competitive advantage. Within System Architect, the Process Decomposition diagram is a handy vehicle for establishing what business processes are performed within each of these value-chain areas. Each of the value-chain areas listed above can represent a Primary Process Group. Each group contains one or more process threads a process thread is a grouping of process flows that deal with a central process – for example, ordering. Each process thread contains the elementary business processes that make up the thread these are modeled on one or more Process Chart diagrams for each Process Thread. System Architect reviews all of the Process Chart diagrams you have built, and automatically draws appropriate elementary business processes on the diagram, under the Process Threads that they belong to remember, every Process Thread is represented by one or more Process Chart diagrams. Take a look at one of the Primary Process Groups, for example, Interact. Note that you can now view this value chain category, and see the various processes that are performed by your company to satisfy this value chain. As Treese and Stewart state, in developing systems for Internet commerce, you should focus on parts of the value chain related to that of the underlying business ie, the product you are selling , and from looking at the value chain required to doing business online. Understanding these two pieces and how they fit together is an important part of creating a successful business in Internet commerce. Electronic Commerce Industry Framework Electronic commerce not only affects transactions between parties, it also influences the way markets will be structured. Traditionally, market ties were led through the exchange of goods, services, and money. Electronic commerce adds a new element: Market ties, such as those forming around online payments, are now based on information goods, in-lation services, and electronic money. Technology enabled the creation of new market opportunity that enables new play-ers to step in, creating a whole new set of market dynamics.

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Chapter 4 : What happened to the 'Information Superhighway'? | www.nxgvision.com

Meanwhile, during the entire year, articles mentioned "e-commerce" or "electronic commerce" only times. In , coverage of the Internet as an "information superhighway" fell to 2, stories in major newspapers, about half the previous year's level.

When Thomas Edison invented the electric light bulb in , it would have been hard to conceive that within the space of a lifetime, man would have sent a craft to the moon. Accompanying this period was the development of communications technology, whereby in the early s, satellites allowed man to connect over the entire globe[1]. The result was a shift in political and social attitudes; the rise of feminism, a blurring of class boundaries and the spread of capitalist democracy[2]. The technological developments were so swift that many thought that by the year , man would be indulging in space travel at will, have no shortage of food and would be able to treat all ills[3]. What happened instead was that after the Second World War, science became increasingly concerned with the development of ways to deal with information. The technological culmination of this today is the Internet, and predictions for the future such as the Information Superhighway are commonly based around advances of it. The primary aim of this essay is to consider how the Internet will become the Information Superhighway. To do this, the issue of why the Internet is a unique communications technology needs to be understood, and then why it will become the Information Superhighway. The reason for this, I will argue, is bound in the reasons of why society adopts technology in any case. I will explore these issues in commercial, social and political terms. At the conclusion the reader should be in no doubt as to what the Information Superhighway is, how many influential pundits on this matter feel about it, and why it is genuinely important to consider. In December , the fourth node was added to an academic network in the United States, primarily as an educational tool on the ARPAnet structure. This event is the precursor to the modern day Internet. Originally, the Internet was supposed to be a tool for heightened production and wide-scale programming efforts. What it became was a communications tool for academics, separated by long distances, for discussion and information transfer[5]. The pace of developing the Internet has been astounding. When the restrictions on commercial use of the Internet were relaxed in , the infrastructure itself began to benefit from an influx of money[6]. The Internet and its infrastructure should be seen as two separate entities because, as it develops into the Information Superhighway, the most notable change will be to the infrastructure, not the Internet. These protocols can be adhered to by any system - from standard home Windows based computers to the most expensive super computers - and over any type of network - from the telephone system to cable based loops. Currently, most people access the Internet using telephone lines[7], with their connection therefore narrowband and limited by time. The terms broadband, narrowband and mid-band, refer to the bandwidth, or data transfer rate, of the connection being used. Broadband access is typically defined in the range of "1. The Internet is distinct from the World Wide Web WWW , which is a system whereby people can easily manoeuvre themselves around the Internet using browsing software. Although it is possible to use the Internet without the WWW, just as it is possible to use a computer through the user-unfriendly DOS environment, most people operate within the confines of a browser. The WWW has to conform to universal standards and so most browsers will be able to display the information presented in a useful form, even if the browser is an older version. Without the WWW, the Internet would not be accessible or useful to most people because a graphical, user-friendly interface[9] is essential in helping people adopt such complex technology. In , Al Gore introduced the term stating that the "Information Superhighway will allow us to share information, to connect, and to communicate as a global community. The global telephone network certainly appeals to criteria Gore assigns to the Information Superhighway, however no one would mistake it for this. If the Internet is to evolve into the Information Superhighway, then the definition we have of it must be precise enough to allow us to comprehensively decide exactly when the transition occurs. There are various factors which need to be examined to ascertain any suitable definition. The most notable are the

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technical aspects, because these are the physical connections which allow the network to exist in the first place. Access to the Information Superhighway will be more akin to current digital television access, rather than existing Internet access. The user pays to have access, which is always on, and then just selects when they want to use it. Connection to the Information Superhighway must be able to support two way video communications as a minimum to be considered broadband enough, hence current solutions such as ADSL mid-band connections, do not constitute the Information Superhighway[12]. Jonscher considers the Information Superhighway to be a metaphor for a communications network which allows transportation within its own particular space[14]. Movement or transmission in Cyberspace is accomplished electronically, hence the comparison with a highway is apt because it also exists solely to facilitate movement[16]. Atoms are physical, and go to make up the physical objects we move about. Bits are information comprised of digital form, and these are what flow over the electronic links. Bits cannot distinguish the type of information they convey, hence any highway for transporting bits, is able to move any type of information through it. Ultimately these factors provide a very specific definition which we can appeal to, in the pursuit of a path to the Information Superhighway. The Information Superhighway is a physical network, facilitating the broadband, two-way transmission of any type of digital information, within its own virtual space. The physical nature of the Information Superhighway dictates that a communications infrastructure capable of supporting broadband connections will have to be established. The route to establishing such an infrastructure are commercial and political issues, which will be considered later, however it is first important to understand the technological benefits of having a digital infrastructure. Digitisation The major distinction between the traditional transmission of information and that of the Information Superhighway is that it will be digital. The transition from the Internet, which generally operates over the analogue telephone networks, to the Information Superhighway requires a shift towards a pervasive digital network. There are four key advantages to the transmission of information in digital form: Integrity of the information A digital signal is simply the code 1s and 0s , which represents the original analogue information. The quality transmission or replication will be maintained because it is the digital code which is being copied. If this is inaccurate, the entire process fails. With digital information, you can only have either a perfect copy or one that does not work at all. Manipulation Digital information can be manipulated with relative ease compared to analogue information. The most standard form that this takes is using a computer program to alter the information before it is outputted. Images taken on a digital camera, for instance, can be manipulated using a computer before they are printed to produce effects not captured when the picture was originally taken. The connotations of manipulating information are usually negative, however most digital information is manipulated. This might take the form of airbrushing red eye out of a photo or even adding the score to the moving images of a televised football game. Neither of these applications naturally occur, yet are valued positively. Compression Information translated to a digital code exists as very frequent approximations of the analogue source it seeks to represent. Digital music, for instance, is typically the collection of 44, approximations of the original analogue information each second. The human ear cannot distinguish between 44, approximations and so both digital and analogue pieces sound the same. Much of the information collected over 44, times in one second is the identical, hence with compression techniques redundant information can be removed. The upshot of this technique is that it takes less bandwidth to communicate information. This is why digital television has the capacity for more channels than standard analogue TV and why we can fit times more music on a CD using digital compression than with standard techniques. Convergence All information in digital form is comprised of the same bits - 1s and 0s - be it music, image, text, video, or whatever, and so can be communicated using the same infrastructure. Any digital network allows the transmission of any type of information and as such represents "the convergence of the computer and telecommunications"[18]. Any device connected to the digital network will be able to collect any information on that network, although this is no guarantee that it will be able to process that information. A digital television set-top box with the capacity for email will be able to receive a computer data file, but that does not mean that it will be able to usefully process it in the

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same way that a PC might. Devices connected to the Information Superhighway, or indeed the Internet, only need to be able to adhere to the protocol of the transmission of information across that network. Hence, the concept of convergence ultimately relates to the flows of data rather than the capacity of devices for processing that information. At this point in the essay we understand what the Information Superhighway is, where it came from and what the technological advantages of having the digital infrastructure are. The two essential questions asked at the beginning were why and how the Internet was going to become the Information Superhighway. The answers lie in the applying the understanding of the technology to the concept of why any technology is adopted at all. John Street and Raymond Williams discuss the arguments of technological determinism; that the most powerful influence on the development of society can be seen as an expression of technological development. However, both acknowledge that this is not the only cause of technological innovation, citing social issues as factors also. Where Williams sees technological advancement predominantly determinist either social or technological, Street perceives such views as "flawed to the extent that they overlook the combination of political, scientific and cultural processes that construct the technology. As Bill Gates points out, technology can only reach commercial viability when people choose to adopt it, because "the marketplace is the greatest decision-maker. We need only look at the public uptake of the VHS videotape format over the technologically superior Betamax format to show this. The success of VHS can be attributed to the application of the technology; there was a larger and better library of VHS tapes available. Therefore, to understand how the Internet we currently have will become the Information Superhighway, it has to be shown that the Information Superhighway adds value to human life and that the development of the technology is commercially viable. Whilst the network itself is oblivious to the physical infrastructure which forms its links, geographical boundaries and financial considerations, those who will build it are not. A study of how communications infrastructures have developed in the United Kingdom, and how the development of digital networks is different, will help to explain the political considerations of building the Information Superhighway. Traditionally where communications technologies have been concerned, political powers have always sought to regulate their use. After the First World War interrupted growth in the amateur use of radio and telegraphy, the government only allowed for public consumption through the regulation of the BBC in Television too has been heavily affected, as has telephony, with the government directly regulating these communications methods. However, the convergence of telecommunications and computing at the latter end of the twentieth century forced governments to realise that nationalised organisations could no longer match the pace of change in this field. Frederick Williams notes that one of the most likely physical infrastructures for the information society will be fibre optic cable, because of their broadband capacity[22]. As Negroponte states, "a fibre the size of a human hair can deliver every issue ever made of the Wall Street Journal in less than one second. The government held the belief that "market forces were better suited to cope with the rapidly changing requirements of the telecommunications field than a single monopoly network under rigid control. Advances in telecommunications not only empower individuals and their views, but allow them to be influenced from a greater variety of unmediated sources[25]. With digital networks existing as globalised entities, it would be an odd notion to suppose that they should be bound by the regulations of geographically confined establishments such as governments. Hence, through deregulation, the government has passed the risk and potential rewards onto the international commercial sectors, allowing them to write off the huge amounts of capital investment in old telephony systems, to create this "new generation of networks"[26]. With this deregulation, "by the tenth anniversary of information highway mania, the Internet will deliver the full highway we envisioned. The commercial marketplace exists, primarily, to be commercially viable for those organisations which operate within it. Commercial viability is reliant to consumers or businesses willing to invest capital into the commercial organisation, either because of its product or services. James Slevin considers these issues in relation to the theory of globalisation, which must be seen in both economic and cultural terms, when people or organisations seek to operate on a global stage. Financial institutions, for instance, move money around the world within this virtual realm. For the most part this money only exists

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electronically, yet still maintains proper value in the real world. Satellite television signals exist as nothing more than instantaneous transmissions. Nevertheless, millions around the world spend hours watching them. Cyberspace is not an alternative to the real world, but a method by which to bypass the space and time involved in moving information geographically.

Chapter 5 : 'Free shipping is pretty much table stakes' in e-commerce - T I S H

E-commerce companies are under pressure to offer free shipping from deal-chasing consumers, and those who don't may run the risk of falling behind their competitors, Etsy President and CEO Josh Silverman said Wednesday.

Chapter 6 : Reviving the Info Superhighway | HomeToys

Excerpt from The Information Superhighway and Electronic Commerce: Effects of Electronic Markets It is becoming increasingly difficult to accurately delineate the borders of today's organizations.

Chapter 7 : Information superhighway (I-Way) and market forces influencing I-Way

Adoption of the Internet and the Information Superhighway for Electronic Commerce Sungmin Kang Center for Information Systems Management Department of Management.

Chapter 8 : Southeast Asia's e-commerce growth accelerating - T I S H

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Chapter 9 : The Information Superhighway and Electronic Commerce

I-way, also known as the electronic, interactive, or multimedia superhighway has become the leading buzzword that has no precise definition. I-way can be portrayed as the high bandwidth, interactive pipeline capable of simultaneously supporting a large number of electronic commerce applications.