<table>
<thead>
<tr>
<th><strong>Title</strong></th>
<th>Cashing in on E-commerce</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Author(s)</strong></td>
<td>Toh, See Kiat</td>
</tr>
<tr>
<td><strong>Date</strong></td>
<td>1999</td>
</tr>
<tr>
<td><strong>URL</strong></td>
<td><a href="http://hdl.handle.net/10220/2126">http://hdl.handle.net/10220/2126</a></td>
</tr>
<tr>
<td><strong>Rights</strong></td>
<td></td>
</tr>
</tbody>
</table>
Paper for “Cashing in on eCommerce”  
(8th AMIC Annual Conference, Chennai, India, 1-3 July 1999)

i. Introduction

In the past, delivery of information to the mass public has, to a large extent, relied on conventional and established communication channels such as television, radio and prints. People in general have comfortably attuned themselves to these media for information gathering, keeping updated on market trends and developments as well as for leisure. The success of any marketing and promotion programme by any company has usually been measured by the degree of information reach to the target audience via such media which indirectly translates into sales of product and services.

However, with the advent of the Internet and its mass-adoption, the ways which people live, work and play will be dramatically impacted. A bigger slice of an individual’s time will be spent on the Internet and the World Wide Web to fulfil objectives that have been previously met by using traditional media.

From the business standpoint, increasing business volume will be generated via the Internet through electronic commerce (eCommerce). Apart from providing businesses with goods, procurement, payment and fulfillment capabilities, the Internet also offers them continuous, round-the-clock access to global markets. More advertising budgets will be set aside for online advertisement of products and services. Also, unlike advertising via traditional means, the Web offers a direct feedback loop for mass media advertising.

Advertising business is becoming much more competitive as customers demand tangible proof of the efficacy of the advertisements they paid for. Advertising companies or agencies will have to re-evaluate and re-position themselves in this rapidly changing landscape introduced by the new electronic media. Failure to do so will amount to losing market share and business revenue.

ii. Usefulness of the Internet and World Wide Web

The Internet, through which eCommerce thrives, promises much to businesses – a low-cost platform to reach out to global markets and one which defy geographical boundaries and time zones to enable businesses to stay connected with the rest of the world, 24 hrs a day and 7 days a week.

More significantly, it offers tremendous time and cost savings for corporate purchasing of low-cost, high-volume goods. It also offers increased speed and accuracy of communication between businesses and better management of customer relations. The multimedia ability of the Internet has also enabled creative ways to display and sell merchandise. Many companies today are using the Internet primarily for marketing purposes.
The Internet too offers a means for brokerage firms and consumers alike to do stock and shares trading and at a lower cost. Whilst it allows consumers to make payments and settle their bills online, it also offers secured mechanisms for financial institutions to do electronic funds transfers.

Through online shopping, it offers consumers the convenience of shopping for a multitude of products and services - ranging from ticket/hotel bookings to purchase of flowers, cosmetics, cards, groceries, toys and CDs, to computer accessories and cars – all in the comfort of their homes.

The vast amount of information accessible through the Internet has also enabled individuals to browse and search for the information they need. The speed at which it is capable of delivering news and information is phenomenal. For instance, it is a matter of seconds before a piece of news travels from one end of the globe to the other end. The Internet has challenged the old ways governments do things. It was the Internet which brought the news of all sorts of real and imagined irregularities to information closed or controlled countries – from China to Indonesia to Malaysia to Hong Kong – and changed the way governments and political parties function to win the hearts and minds of their citizens.

The Internet’s ability to transmit voice, data and images has also made it a favourite medium for play, communication and interaction amongst people. Some people resort to the Web to play games in their leisure time. Some others communicate with friends and business associates through electronic mail (email) which has proven to be far more economical compared to communicating via IDD. Through Internet Relay Chats (IRC) and various service offerings for chatting, it has pulled together people who may be of similar or different ethnic origins and dispersed at various corners of the world.

iii. Exponential Growth of Internet Population and eCommerce

Given the usefulness of Internet, it is predictable that more and more people and businesses from all round the world will be plugged into this global network to harness and reap its benefits.

According to WorldCom/MCI, global Internet users are growing at a rate of 2.5 times for every 2 months. Websites and domain names are springing up by the minute and second.

The survey results by various research organisations all point to an increasing eCommerce revenue trend from the present to the next 3 years.

The U.S. Department of Commerce has projected that the U.S. Business-to-Business (B2B) and Business-to-Consumers (B2C) eCommerce will reach USD 310 billion by end of 1999. By the year 2003, the WhiteHouse estimates that this figure will balloon to USD 1.5 trillion. The same year will also see eCommerce revenue reaching USD 0.8 trillion for the Europe and USD 0.9 trillion for the Asia Pacific (source: G8).
Forrester Research has projected that world eCommerce revenue will swell to USD 3.3 trillion by the year 2003. The figures are stupendous. We ignore them at our peril.

iv. Successful eCommerce Models

Let us look at some successful eCommerce models of today:

a. eBay (www.ebay.com)

Founded in 1995, eBay is the world’s largest online auction site that is available round-the-clock. eBay has more than 3.8 million registered users and had more than 8 million unique visitors to the site in March 1999. Currently, there are more than 2 million items in more than 1,500 categories listed for sales. Items traded include antiques, books, movies, coins and stamps, collectibles, computers, dolls and figures, jewelry and gemstones, photo and electronics, pottery and glass, sports memorabilia; and toys.

According to Media Metrix Feb 99 Web Report, eBay is the third most popular site on the Internet when measured by total user minutes per month (800 million).

In the fourth quarter of 1998 alone, eBay users generated more than $306 million in gross merchandise sales (the value of goods sold between individuals). eBay offers the broadest selection of items for sale anywhere on the Internet, and quite possibly in the world. In fact, on average, during the fourth quarter of 1998, every minute of every day more than 150 new items were listed, more than 500 bids were placed and 7 new people registered on eBay.

Such figures for listed items and sales volume are mind-boggling, if not unfathomable, to the physical auction houses operators of yesteryears.

Listed on Nasdaq, ebay’s last stock price was $136 per share (as at 25 June 1999), representing a total market capitalisation of approximately $17 billion.

b. Yahoo! Inc (www.yahoo.com)

Founded in 1994 by two developers - David Filo and Jerry Yang, Ph.D. candidates in Electrical Engineering at Stanford University - Yahoo! evolved from an idea and hobby to an internationally-renowned portal site (“portals” are sites that strive to be the starting point for web surfers) which generated tremendous amount of revenue from online advertising.

For the 1st quarter ended 31 March 1999, Yahoo! reported net revenues of $86 million, nearly triple the revenues of $30.6 million reported in the corresponding period of 1998. For fiscal year 1998, net revenues were $203 million, nearly a 3-fold increase over the net revenues of $70.5 million for fiscal 1997.

For the month of March 1999, traffic on the Yahoo! global networks grew to an average
of 235 million page views per day, up from an average of 167 million page views per day in December 1998. A page view is defined as one electronic page of information displayed in response to a user request.

Yahoo!'s shares ended $147 on Nasdaq on 25 June 1999. This is equivalent to a gross market capitalisation of $30 billion, an admirable feat indeed for a company that is just about 5 years old.

c. Dell Model (www.dell.com)

Dell is a leading supplier of PCs to business customers, government agencies, educational institutions and consumers. It is the fastest growing among all major computer systems companies worldwide. Dell was founded in 1984 by Michael Dell based on a simple concept: that by selling personal computer systems directly to customers, Dell could best understand their needs, and provide the most effective computing solutions to meet those needs. Today, Dell is enhancing and broadening the fundamental competitive advantages of the direct model by increasingly applying the efficiencies of the Internet to its entire business. There are no retailer or other reseller adding unnecessary time and cost to fulfilling customers' expectations. Every Dell system is built to order. Customers get exactly what they want.

It is this unique model which has helped Dell secure its Internet leadership over its competitors such as IBM and Hewlett Packard. Online sales surpassed $18 million per day during the first quarter of 1999, accounting for 30 percent of overall revenue. Its website received 25 million visits at more than 50 country-specific sites for the same quarter. Dell has forced IBM and Hewlett Packard to relook their strategies and re-evaluate their former advantages of having an extensive distributor network.

At www.dell.com, customers may review, configure and price systems within Dell's entire product line, order systems online or by telephone, and track orders from manufacturing through shipping. The site also offers personalized and comprehensive technical support.

Its net revenue for the first quarter of 1999 totaled $5.5 billion. Its stock price has jumped from $8.5 per share in 1988 to $37 per share when trading ended on 25 June 1999 on Nasdaq - representing a gross market capitalization of approximately $94 billion.

d. Cold Storage (www.coldstorage.com.sg)

Cold Storage Company Ltd was registered in Singapore on June 8, 1903, as a storage and distribution business for frozen food and perishable products. In 1905, the company opened its first retail operation in Orchard Road, Singapore's major shopping street.

Cold Storage is one of the early adopters of eCommerce in Singapore. Dating back to the year 1997, it implemented a new Dial and Deliver service that allowed customers to order items through Singapore ONE, the world's first nationwide broadband network. Through
Singapore ONE, customers are able to shop online for all kinds of groceries and have their purchases, which are sealed with Cold Storage's freshness guarantee, delivered timely to their homes and offices. Cold Storage also opened up a new niche field – office groceries!

The Cold Storage example was an excellent model illustrating how conventional businesses such as a grocery shop can leverage on the Internet to open new revenue streams, improve profitability and productivity.

Today, Cold Storage operates 21 supermarkets island wide, including air-conditioned wet market, one Jasons, the Gourmet Grocer, and one Cold Storage Gourmet. But it is their website which has changed the face of grocery shopping in Singapore.

e. Printing & Publishing Companies

i. SingTel Yellow Pages Pte Ltd (SYP at www.yellowpages.com.sg)

SYP is the official publisher and printer of the Singapore Phone Book and Yellow Pages. The company has a staff strength of more than 450 and has over 30 years of publishing and advertising experience. SYP is a wholly-owned subsidiary of Singapore Telecommunications Ltd.

Out of a directory publishing operation in Singapore, SYP has in recent years diversified into a wider range of services. It has successfully developed and introduced new products and services and ventured into new markets. Today, SYP publishes several niche directories dealing on topics such as tourists and travel, motoring, health and education, business, trade and investment.

SYP runs three websites on the Internet (World Wide Web). AsiaPages is a business and shopping directory website which hosts corporate clients and provides country profiles and relevant business information. The site also contains information on all of SYP's print and electronic publications and services.

The second website carries the Singapore PhoneBook on Internet which houses the entire telephone directory of subscribers who make use of Singapore Telecom's services.

A third website (Internet Yellow Pages) was launched on 1 July 1997 and provides a comprehensive directory listing of all businesses in Singapore.

In addition, SYP's multimedia group provides audio and video post production services as well as web development and hosting services. The unit also develops both content and database types of CD-ROM. Other multimedia capabilities include creating corporate presentation materials on PC/Mac, and audio/video post-production jobs for its clients. With sufficient bandwidth in the future, the multimedia services group will also be hosting clients' video and audio materials on the Internet as well.
Lately, SYP launched a Virtual Commerce Mall, known as Yellow Pages Commerce, for shoppers to purchase a multitude of products that range from flowers to communication equipment, and most products in between. At YP Commerce, the shopper checks-out with a single sum for all his purchases at the end of his visit. This allows for a single-point of contact for after-sales service which is beneficial to both shoppers and merchants alike.

SYP is a good example that demonstrates the impact of the Internet on traditional printing firms and how traditional operations of print houses have to evolve with the pace of Internet.

ii. Xpress Print (www.i-one.net)

Xpress Print is known in the market for hi-tech, hi-quality printing as well as printing time-sensitive reports for the financial industry. Recently, it has also entered the eCommerce fray with its listing of i-One.Net (www.i-one.net) on the stock exchange of Singapore. i-One.Net offers the public a new means of accessing information, entertainment and soon eCommerce on a 24-hr basis on computers at booths strategically placed in the main shopping areas. Currently, it has just over 200 of these telephone booth-like kiosks but plans are to have 1,500 i-One booths all over the island by the middle of next year.

iii. SNP Corporation Ltd (SNP at www.snp.com.sg)

SNP is a leading media group in Singapore and listed on the Stock Exchange of Singapore. It grew out of Singapore National Printers Ltd which in turn had its origin in the former Government Printing Office. The Company had its beginnings 129 years ago in 1867 when the General Printing Office produced the Gazettes and other official publications for the government. In 1973, Singapore National Printers Ltd was incorporated to take the role of the Government Printer. From then, it operated on a commercial basis. Years ago, it went into the Internet and multimedia business through setting up a multimedia subsidiary – SNP Multimedia. The latter markets educational products for students in Singapore and professionals.

Examples of its multimedia offerings include:

“CyberScholar” - an interactive multimedia learning system available in CDROMS or online that further enhances the learning skills and concepts of students;

“Cambridge On-line” - an online learning resource for students and adults preparing for the GCE 'O' and 'A' level examinations. Cambridge On-line is a collaboration between Cambridge University Asia Pacific Training Services, a wholly-owned subsidiary of University of Cambridge in the United Kingdom, and SNP Multimedia Private Limited.

Panpac Media was incorporated in Singapore in October 1994. Its printing and publishing business includes the markets of Singapore, Malaysia and Hong Kong. With a staff strength of 150, it is one of the leading magazine publishers in Singapore and Malaysia.

To complement its existing business, the Group intends to take advantage of its content ownership, customer base and network of international media contacts to explore electronic publishing and commerce opportunities on Singapore ONE.

Its current main business thrust focuses on:

- developing its core periodicals and magazines business in Singapore, Malaysia, Hongkong and other parts of the region;
- developing its complementary directories and books publishing business;
- developing a highly visible role in IT-lead projects such as Singapore One and the Multimedia Super Corridor (MSC) in Malaysia as a content and service provider;
- pursuing its interests in electronic multi-media publishing and the production of broadcast materials.

As a result of its exposure to eCommerce, its stock price soared handsomely on the Stock Exchange of Singapore in recent months.


SPH publishes, prints and distributes newspapers and magazines. It publishes twelve newspapers and seven periodicals, of which The Straits Times and Lianhe Zaobao are the most widely-read newspapers in Singapore.


In recent years, SPH was seen moving aggressively into the booming Internet market. Its online business ventures include AsiaOne, one of the most popular websites which provides online news services; and Newslink, an online electronic library, and AudioTex, a voice information access system.

Its other multimedia businesses include MobileOne, Singapore's second cellular mobile telephone network and paging service and Singapore CableVision, which provides a Singapore-wide cable network.

Months ago, it sold its Internet Service Provider (ISP), CyberWay Pte Ltd, to Starhub (a company that is due to offer both basic telephone and cellular services in Singapore in April 2000) and applied for the fourth ISP license with Keppel Telecom & Transportation.
eCommerce will certainly spur the growth of Internet populations worldwide, Singapore included. There is certainly more room to grow and revenue to make out of the Internet – and it is presumably upon this premise that prompted a conventional printing and publishing company to march boldly into the telecommunication business that supports the Internet.

f. Broadcasting Stations and Networks

i. Radio Corporation of Singapore (RCS at www.rcs.com.sg)

Started off as a single radio station in 1936, RCS operates the nation's largest radio network with 11 out of the 29 stations on the FM band, which is accessible to the market of 2.6 million individuals aged 15 and above. Its stations broadcast in 4 different languages, offering a mix of music, news, and information, for specific segments of the public, and collectively reach out to 2.1 million Singaporeans weekly.

With Internet, people no longer need to depend on radios as the only source to tune in to its individual stations. This is because RCS has already had a web presence which allow its audience to listen live from various broadcasting stations (http://rcslive.singnet.com.sg). With cosmopolitan Singapore at the crossroads of Asia, the Internet has enabled RCS to be a broadcaster of international repute.

ii. Television Corporation of Singapore (TCS at www.tcs.com.sg)

Asian Broadcaster of the Year for two years running and the region's most highly regarded television network, TCS is Singapore's largest terrestrial broadcaster, owning and managing two channels. It has also recently launched its third channel: Channel NewsAsia, an 18-hour-a-day channel, dedicated solely to business, news, current affairs and business development.

Corporatised on 1st October 1994, TCS is part of the Singapore International Media (SIM) group of companies.

TCS is fully equipped to create its own productions and reach out to almost all households in Singapore. Beyond Singapore, it broadcast regionally via satellite and distribute its programmes internationally - from neighbouring countries such as Malaysia all the way to the United States.

Like many other Internet players, it has also gone online years ago. It launched its award-winning Internet website Mediacity (www.mediacity.com.sg) on 8 May 1996 and offers a one-stop shop for the latest entertainment and information in both English and Mandarin. It is also one of Singapore's most popular sites with 50 million hits each month. Its news@asia is first in Asia to provide online news updates.

Apart from the Internet, it is also one of the content providers on Singapore ONE. Its 1-On-ONE service delivers a video-on-demand service to web surfers and is available
twenty-four hours a day via digital compression on the broadband network.

iii. Pointcast (www.pointcast.com)

PointCast receives news and information via satellite from sources all over the world and broadcasts personalized and latest news via the Internet to subscribers’ computer screens—all for free. News sources include CNN, The Wall Street Journal and The New York Times as well as industry-specific content from hundreds of trade journals, newswires and industry agencies.

Pointcast allows viewers to select their preferred channels and news update schedules at registration. With PointCast, one can monitor one’s stock portfolio, get up-to-the-minute national and local news, keep tabs on ones competition and follow key developments in various industry verticals.

PointCast is a lot like television. There’s a display (a computer screen); a network that identifies and aggregates programming for broadcast (PointCast); and a ‘cable’ that delivers the programming to viewers (the Internet). The big difference is that with PointCast, viewers get exactly what they want, when they want it.

Because of its unique service, more than 1.2 million active viewers rely on PointCast for their news and information, making it the most popular business news service on the Internet. It is able to cash in on advertising dollars through the Internet and provide its service free for all its viewers.

iv. CNN (www.cnn.com)

The CNN News Group provides one of the world’s largest broadcasting networks, one of which is the CNN Interactive. The latter provides audio service online to Internet users by allowing them to listen live to CNN news, sports and features etc at http://www.cnn.com/audioselect. It also provides users with video-on-demand via http://www.cnn.com/videoselect.

We can see from here that the Internet is being exploited by broadcasting companies as a means to reach out to more audience and thereby generate more marketing and advertising revenue in addition to their conventional media through the television.

g. Airline & Hotel Reservations

With online ticketing and hotel bookings easily available on the Internet, the latter poses a direct threat to intermediaries such as travel agents.

Take a look at Travelocity (www.travelocity.com), a fully owned subsidiary of the Sabre Group which provides links to over 10,000 travel agencies worldwide. All a traveler needs to do is to connect to Travelocity’s online website at www.travelocity.com or travelocity.co.uk to have all his travel arrangements made to his budget — at the click of
his finger.

Travelocity provides access to over a hundred vacation and cruise packages, allows travelers to view over 700 airlines with 420 bookable online, 50 car companies and 40,000 hotels.

Upon confirming his flight booking, car renting, hotel reservation and submitting his credit card number online (protected using Secure Socket Layer (SSL) encryption), he can then relax and receive his confirmation and detailed itinerary via e-mail.

How does this sound to you against the conventional methods of queuing up for airtickets and wasting time and effort searching for hotel accommodations before you embark on an overseas trip?

This is yet another example to show how new business models can emerge from the Internet and how the latter can be leveraged to provide better customer service and tremendous time and cost savings.

v. Traditional vs New Media Advertisements

With these trends, it is understandable that more and more companies are pumping their marketing dollars doing advertising and promotion via the Internet and to reach their target markets or audience.

Let us assess and compare the cost effectiveness of advertising via the different media currently available.

A good source of reference will be the Morgan Stanley industry bible, the Internet Advertising Report, which uses a common yardstick known as CPM (cost-per-thousand). A lower CPM offered by any medium means a lower cost to reach the same number of audience via that medium. These are illustrated by the following charts:

<table>
<thead>
<tr>
<th>Medium</th>
<th>Vehicle</th>
<th>Cost (USD)</th>
<th>Reach</th>
<th>CPM (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV</td>
<td>30 sec network primetime</td>
<td>120,000</td>
<td>10 million households</td>
<td>12</td>
</tr>
<tr>
<td>Consumer Magazine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ATTENTION: The Singapore Copyright Act applies to the use of this document. Nanyang Technological University Library
Chart I: Comparison of Advertising Rate Across Major Media
(Source: Jupiter Communication)

The above chart may appear as if TV is still the choice medium as it offers the lowest CPM compared to other media. However, it is important to note that TV is a mass reach medium. For reaching high-income, well-educated audiences, television CPMs are quite high. Web advertising, in many cases, can actually deliver a lower CPM against the same demographics. This is further demonstrated by the following chart:

<table>
<thead>
<tr>
<th>Target Definition</th>
<th>Audience (Estimate)</th>
<th>CPM (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>US TV Households</td>
<td>8,526,000</td>
<td>12.52</td>
</tr>
<tr>
<td>Age 18-49</td>
<td>6,361,200</td>
<td>16.78</td>
</tr>
<tr>
<td>Age 18-49 &amp; $40k+ HHI</td>
<td>3,796,200</td>
<td>28.12</td>
</tr>
<tr>
<td>Age 18-49 &amp; $50k+ HHI &amp; HOH + College</td>
<td>2,171,700</td>
<td>49.15</td>
</tr>
</tbody>
</table>
HHI: Household Income  
HOH: Head of Household

Chart II: Network Primetime Reach and CPM Vs Select Demographics  
(Source: Netcost Q4 1997 Primetime Scatter Estimates, Nielson 11/97 Audience Estimates)

If we adjust the TV primetime CPM from $12 to $49 to account for the premium required to reach a target audience of a reasonable level of income and education, the television/Web CPMs actually becomes far more comparable. The economies of Web advertising, particularly for reaching discreet, affluent target audience, becomes clear.

Also, it is worth noting that online media planners and buyers can target infinite demographic or psychological audiences because the Web is home to more vertically targeted content than any other medium. This allows advertisers to purchase media schedules against nearly any target audience with a minimum amount of waste.

Having understood the comparisons between the various media based on cost and reach to target audience, the next issue is: is Internet advertising really effective?

The answer is “YES”.

According to a study conducted in 1997 for the Internet Advertising Bureau (IAB at HYPERLINK http://www.iab.net http://www.iab.net), MB Interactive ( HYPERLINK http://www.mbinteractive.com http://www.mbinteractive.com ) concluded that “online advertising is more likely to be noticed than television advertising.” This could be attributed to the following:

- online advertisement banners have a lower advertisement-to-editorial ratio on Web pages
- A typical Web page is 91% editorial and 9% advertisement (base on a typical ad banner being 468 x 60 pixels and default screen size being 640 x 480 pixels). This is much more favorable when compared to magazines, which has a ratio of 50/50, and television, which is closed to 60% programming/40% advertisement. The more advertisements there are, the less your own advertisement will be noticed.

Web users actively use the medium as opposed to passively receiving it

It is remarkable to note that few people actually pay full attention to television shows, not to mention the advertising. According to MBI, which measures television viewer attentiveness, not even two-thirds of the viewers of television’s most popular shows are
paying “full attention” to the programming. Those actually watching the television commercials represent a far smaller number. In contrast, Web surfers cannot navigate the Web without high concentration and attention levels. Both are required for advertising to get noticed, remembered and ultimately acted upon.

To put all in a nutshell, online advertising, using banners, has tremendous communication power. Through one single exposure, it can generate advertisement awareness, brand awareness and perceptions as well as potential for sales. Even more amazing is that these are achieved without a “click-through” to the advertiser’s site. Therefore, any advertiser looking to build their brand awareness and increase their sales should utilize online advertising alongside traditional media to ensure their future success.

vi. Internet Advertising Revenue

Corporations saw the Internet as a great way to put their sales literature on-line. The growth of this area can be seen in the number of web sites, which has soared from zero in 1993 to over 4,062,287 today. By 1994, efforts to use the web for business became commercial and companies like Yahoo! started to take advantage of this. By early 1995, it was possible to advertise on-line, although not many companies took advantage of it. The first Internet advertising revenue figures were for 1996. The Internet Advertising Bureau (IAB) reported that there were $267 million of revenue for all ads sold in 1996. This grew to $906.5 million in 1997 and the latest projections peg Internet advertising at $2 billion (IAB) for 1998.

vii. Convergence of Communication Channels

Advertising agencies and public relations companies also need to take heed of some converging trends that are shaping the communications industry today.

What is happening now is that many companies are scrambling to connect electrical and electronic gadgets to the Internet - in the hope of tapping the Internet’s seemingly inexhaustible benefits.

Computer geeks are brimming with new ideas and researchers are competing to be the first to introduce new products or solutions that can provide such capabilities. Examples include kiosks, set-top boxes, technologies that enable mobile phones/palm tops to do eCommerce, solutions that allow travellers to be connected to the Internet wherever they are, interface platforms which enable people to talk to each other via desktops/laptops with Internet connections etc. With such trends continuing, it is little wonder that one day, every electronic gadget that one carries or encounters in public will possibly have Internet connection capabilities.

The separation lines between the various communication channels existing today are getting blurred. For all you know, there may come a day when publishing and advertising via one single medium, the Internet, suffices for all.
viii. Potential Limitations

We may appear to be discussing issues which are too far-fetched to many. As a matter of fact, the landscape as drawn above is very much a projection of what is already being witnessed in more advanced countries.

We have to acknowledge, however, that there exists a number of hurdles for us to overcome before we can reach - or be at somewhere near to the ideal world - where people/businesses can transact, interact and communicate freely with one other via the Internet. As it is, there are still wide disparities amongst countries in areas pertaining to culture and language, eCommerce acceptance, adoption, availability of infrastructure support and Internet literacy and accessibility.

From the business point of view, there are other issues to overcome, such as lack of business models, poor interoperability between eCommerce applications and legacy systems, security and encryption, lack of standards etc.

viv. Conclusion

It took barely four years from the year 1994, when the World Wide Web was conceived and implemented, for the web to create waves all round the world. The web today never fails to amaze people with its transforming powers in virtually every aspect of our lives. I am sure that more will be in the offering for the years ahead.

I would like to conclude here by saying that the Internet is the way to go – the future platform for businesses to operate and people to work, live, interact and play. The same goes for the communications industry. It is time that you reshape your strategy, if you have not done so, to cash in on the benefits that this new electronic media offers.
http://www.iab.net)
http://www.iab.net)
http://www.iab.net)/
http://www.iab.net)/
http://www.mbinteractive.com
http://www.mbinteractive.com
http://www.mbinteractive.com/
http://www.mbinteractive.com/
6 AM 9/4/98 +0800
Eddie Liew
RE: Standard Letter Format
08:18 AM 3/8/99 +0800
csim@cnsg.com.sg
Standardazation of our Network Application
04:00 PM 9/16/98 +0800
Eddie Liew" , "Cecilia" <csim@cnsg.com.sg>, "andy" <
Re: Starr Report
05:48 PM 3/9/98 +0800
etyap@princeset.com.sg
Stationery Requests
08:36 AM 4/20/98 +0800
asktoh@cnsg.com.sg, tanch@cnsg.com.sg
Stats on Asia
10:45 AM 4/17/98 +0800
lmoung@nii.ncb.gov.sg
Re: Stats on Asia
02:30 PM 2/2/99 +0800
cassandra@ncb.gov.sg
Status of Keynote Speaker Invitation
01:55 PM 1/26/99 +0800
Eddie Liew
RE: status of LOA/Pw
01:15 PM 1/26/99 +0800
Eddie Liew, Cecilia <csim@cnsg.com.sg>
Re: status of LOA/Pw
01:52 PM 6/17/99 +0800
bonsai@pacific.net.sg
Re: Status of Public Key Infrastructure Conference
08:14 AM 6/19/99 +0800
bonsai@pacific.net.sg
Re: Status of Public Key Infrastructure Conference
01:24 PM 6/17/99 +0800
“Cashing in on eCommerce’
Princeset International
Princeset International
Princeset International
Cashing in on eCommerce
Princeset International
Normal.dot
Princeset International
Microsoft Word 8.0
for Online Payment System
03:25 PM 7/6/98 +0800
tan_siew_san@lms.ncb.gov.sg
Supported by NCB
09:30 AM 7/8/98 +0800
TAN_Siew_San@lms.ncb.gov.sg
Re: Supported by NCB
08:21 AM 7/23/98 +0800
Charlie Chor Hwee Tan
Re: Supporting Medias' for CNSG/Asia launch
05:57 PM 7/16/98 +0800
newsgrp@pacific.net.sg
Supporting Publication
11:49 AM 7/20/98 +0800
jeffreychua@idg.com.sg
Supporting Publication Agreement
04:19 PM 10/23/98 +0800
Charlie Chor Hwee Tan
Re: Survey
11:02 AM 10/31/98 +0800
Chika Watanabe
Re: Survey
11:44 AM 10/23/98 +0800
csim@cnsng.com.sg
Survey
03:26 PM 10/30/98 +0800
csim@cnsng.com.sg
survey
11:53 AM 11/11/98 +0800
csim@cnsng.com.sg
Re: Survey
12:11 PM 10/29/98 +0800
wang@nii.org.tw, "Chika Watanabe"
Re: Survey
03:28 PM 6/7/99 +0800
Steve Terry,
Re: Survey for Final Review
07:59 AM 10/29/98 +0800
A Lee Gilbert (Dr)
RE: SURVEY FORM
02:55 PM 4/27/99 +0800
csim@cnsg.com.sg

Survey Form for Security Workshop
08:37 AM 8/5/98 +0800
eliew@cnsg.com.sg

Re: Survey Forms For Launch
08:21 AM 8/7/98 +0800
eliew@cnsg.com.sg

Re: Survey Forms For Launch
04:08 PM 8/4/98 +0800

Princeset Inc.
Cashing in on eCommerce’

_PID_GUID
{93C5EF8D-22F9-11D3-A18C-444553540000}
{93C5EF8D-22F9-11D3-A18C-444553540000}
http://www.mbinteractive.com/
http://www.mbinteractive.com/
http://www.iab.net/}

04:07 PM 8/28/98 +0800
csim@cnsg.com.sg

Re: T.V Interview
10:52 AM 2/3/99 +0800
csim@cnsg.com.sg

Taking too long for CNSG/CASE joint seminar
12:57 PM 2/1/99 +0800
csim@cnsg.com.sg

Talk - Customer Value Management and eCommerce
02:51 PM 6/26/98 +0800
asktoh@cnsg.com.sg
tanch@cnsg.com.sg
08:36 AM 8/17/98 +0800
eliew@cnsg.com.sg

Tape recorder and camera
09:16 AM 4/9/98 +0800
tanch@cnsg.com.sg
09:17 AM 3/27/99 +0800
eliew@cnsg.com.sg

Target Group for CNSG/IMARC joint Survey
01:36 PM 9/21/98 +0800
rogerd@netbox.com

Target Markets for Metadata/XML Workshops/Breakfast Talk
01:08 PM 2/11/99 +0800
“Cashing in on eCommerce”
8th AMIC Annual Conference
1-3 July 1999, Chennai, India

Assoc Prof (Dr) Toh See Kiat,
Advocate & Solicitor
Senior Partner, Tan Peng Chin & Partners
Chairman, CommerceNet Singapore Ltd
email: asktoh@cnsig.com.sg
1. Conventional Communication Channels

- Television
- Radio
- Print

How is Internet changing the face of traditional media?
2(a). Benefits of Internet

• Round-the-clock global access
• Time and cost savings for companies
• Speed and accuracy of communication between businesses
• Better management of customer relations
• Marketing tool for companies
2(b). Uses for Internet

- Trading of stocks & shares
- Settlement of bills
- Online shopping
- Online research
- Information gateway to closed countries
- Play, communication & interaction amongst people (games, email, IRC etc)
3. Worldwide Growth of eCommerce

Source: US Dept of Commerce, White House, G8

Copyright © 1999 Toh See Kiat
4. Asia Pacific (excluding Japan) Internet Forecast

Source: IDC

Copyright © 1999 Toh See Kiat
4. Asia Pacific (excluding Japan) Internet Forecast (cont’d)

Source: IDC

Copyright © 1999 Toh See Kiat
5. Successful eCommerce Models

A. eBay (www.ebay.com)

- Online auction house founded in 1995
- 3.8 million registered users
- 2 million items in > 1,500 categories listed for sale
- 3rd most popular site (according to Media Metrix Feb 99 report)
- 4th qtr of 1998 generated $306 million worth of merchandise sales
- Market capitalisation of $17 billion (based on $136/share on Nasdaq, 25/6/99)
B. Yahoo! Inc (www.yahoo.com)

- Founded in 1994 by David Filo and Jerry Yang
- Net revenue for 1st qtr of 1999 - $86 million
- Net revenue for fiscal 1998 - $203 million (3-fold increase over 1997)
- 235 million page views per day in Mar 99
- Market capitalisation of $30 billion (based on $147/share on Nasdaq, 25/6/99)
Cashing in on eCommerce

C. Dell (www.dell.com)

- Founded in 1984 by Michael Dell
- Every Dell system is built to order
- Online sales surpassed $18 million a day during 1st qtr of 1999 - accounting for 30% of total revenue
- 25 million visits at > 50 countries for same quarter
- Forced its competitors to re-look their strategies and re-evaluate their former advantages
- Net revenue for 1st qtr 99 - $5.5 billion
- Market capitalisation of $94 billion (based on $37/share on Nasdaq, 25/6/99)
Cold Storage

The fresh food people

D. Cold Storage (www.coldstorage.com.sg)

• Registered in Singapore in 1903

• A storage and distribution business for frozen food and perishable products

• 1997 introduced “Dial & Deliver” service on Singapore ONE, a nation-wide broadband network

• 21 supermarkets island wide

• Change the face of grocery shopping

• Discovered new niche

Copyright © 1999 Toh See Kiat
E. Printing & Publishing Companies

i. SingTel Yellow Pages (www.yellowpages.com.sg)

- Wholly-owned subsidiary of Singapore Telecommunications Ltd
- Printer/publisher of telephone directory
- Online information of corporate clients, country profiles and business information
- Online Singapore PhoneBook
- Online listing of all businesses in Singapore (Yellow Pages)
- Yellow Pages Commerce (Mall of Malls)

Copyright © 1999 Toh See Kiat
Cashing in on eCommerce

ii. Xpress Print (www.i-One.net)

- Printer of corporate reports
- Launch of IPO: i-One.Net on Stock Exchange of Singapore
- First day trading: stock price rose from 38cts to S$1.90 (28 June 99)
- Online kiosks offering public information access, entertainment and soon eCommerce and video conferencing

- 200 kiosks currently
- Plan to have 1,500 i-One booths all over the island by mid-2000
iii. SNP Corporation Ltd (www.snp.com.sg)

- Former government printer
- Set up SNP Multimedia which markets educational products for students and professionals in Singapore
- Provides multimedia learning online and in CDROMs
iv. Panpac Media Group
(www.panpacmedia.com.sg)

- Incorporated in Singapore in October 1994
- Publishes periodicals, magazines and textbooks in Singapore, Malaysia, Hongkong and other regions
- Now doing educational CDROMs
- Has begun to explore electronic publishing and commerce opportunities on Singapore ONE
- Exploring Internet Karaoke service

Copyright © 1999 Toh See Kiat
Cashing in on eCommerce

Singapore Press Holdings


- Formed in 1984
- Publishes, prints and distributes newspapers and magazines
- Online/Multimedia business: AsiaOne (online publication), MobileOne (GSM telephone), CyberWay (ISP)
- To apply for fourth Internet Service Provider license with Keppel Telecom and Transportation after selling CyberWay

Copyright © 1999 Toh See Kiat
Radio Corporation of Singapore (www.rcs.com.sg)

- Operates Singapore's largest radio network
- Broadcast in 4 different languages and reach out to 2.1 million Singaporeans weekly and millions beyond Singapore
- Allows audience to listen live via http://rcslive.singnet.com.sg
ii. Television Corporation of Singapore (www.tcs.com.sg)

- Singapore largest broadcaster - owns and manages 3 TV channels
- Offers entertainment (movies, TV sitcoms) and information (documentaries, news) in both English/Mandarin online
- 50 million hits each month
- Content provider on Singapore ONE
- 1-On-ONE service delivers video-on-demand

Copyright © 1999 Toh See Kiat
Cashing in on eCommerce

 iii. Pointcast (www.pointcast.com)

• Broadcast personalized and latest news via Internet to subscribers’ computer screens - you choose the news categories you want ahead of time

• Allows viewers to select preferred channels and news update schedules

• > 1.2 million active viewers

• Free service to clients as a result of tremendous amount of advertising revenue

Copyright © 1999 Toh See Kiat
- One of world's largest broadcasting networks
- Satellite-based broadcasting
- CNN Interactive provides audio service online (http://www.cnn.com/audioselect) and video-on-demand (http://www.cnn.com/videoselect)
- You customize your own news but on one line!
G. Airline & Hotel Reservations
(www.travelocity.com)

- Fully owned subsidiary of the Sabre Group - links to over 10,000 travel agencies worldwide
- Provides online access to numerous vacation/cruise packages, allows airlines/hotel bookings and car rentals
- Confirmation & detailed itinerary via email

Copyright © 1999 Toh See Kiat
6. Traditional vs New Media Advertisements

CPM ($) Comparisons for Different Media

CPM: Cost-per-thousand

Source: Jupiter Communication
6. Traditional vs New Media Advertisements (cont’d)

Network Primetime Reach and CPM vs Selected Demographics

- $12.52
- $16.78
- $28.15

- US TV Household
- Age 18-19
- 18-19 & $40k HHI
- Age 18-19 & $50k + HHI & HOH + College

CPM: Cost-per-thousand, HHI: Household Income, HOH: Head of Household
Source: Netcost Q4 1997 Primetime Scatler Estimates, Nielson 11/97 Audience Estimates

Copyright © 1999 Toh See Kiat
6. Traditional vs New Media Advertisements (cont’d)

- TV primetime CPM is effectively $49 to account for the premium to reach target audience of reasonable income and education

- WEB advertising (with CPM of $20) is more cost effective and able to reach the target group
6. Traditional vs New Media Advertisements (cont'd)

• Online advertising is more likely to be noticed than television advertising because:
  
  i. Online advertisement banners have a lower advertisement-to-editorial ratio on Web pages - hence more prominence
  
  ii. Web users actively use the medium as opposed to passively receiving it
7. Internet Advertising Revenue

Source: Internet Advertising Bureau

Copyright © 1999 Toh See Kiat
8. Convergence of Communication Channels

- Increasing electrical and electronic gadgets come with Internet connection capabilities
- Separation lines between communication channels today are getting blurred
- Soon we will use one portable device to telephone, read our email, watch TV, listen to the radio, plan our timetable, prepare our accounts, do word processing etc etc etc

THE TECHNOLOGY IS ALREADY HERE!

Copyright © 1999 Toh See Kiat

Cashing in on eCommerce
9. Potential Limitations

- Culture/language/script
- eCommerce acceptance/adoption
- Infrastructure support for Internet
- Internet penetration and accessibility
- Manpower issue
- Security issue
- Interoperability of standards
10. Conclusion

- From 1994 - 1999, Internet has transformed virtually every aspect of our lives
- Internet - the future platform for businesses to operate, for people to work, live, interact and play
- It is still not too late to cash in on the benefits that this new electronic media offers
- It is a technology which is both a MULTIPLIER and a LEVELLER. Use it or lose it!
Summary for “Cashing in on eCommerce” Paper
(AMIC 8th Annual Conference 1-3 July 1999, Chennai, India)

From an idealistic standpoint and assuming all parameters governing eCommerce are set in place neatly across the globe, eCommerce offers businesses, especially small businesses, an extremely low-cost platform to reach out to world markets, as opposed to otherwise prohibitive costs that will have been incurred through conventional modes of doing business on a global scale. Through eCommerce, businesses can enjoy continuous, round-the-clock access to global consumers and businesses.

Much as we would not like to see them, we have to acknowledge that currently, there exists a number of hurdles for us to overcome before we can reach, or be at somewhere near to the ideal world of eCommerce.

Currently, there exists wide disparity amongst countries in areas pertaining to eCommerce acceptance, adoption, availability of infrastructure support and Internet literacy and penetration of populations.

Some countries have, or are in the process of creating conducive macro environments for eCommerce by establishing sound legislative systems for eCommerce, enhancing telecommunication infrastructure support, training their workforce to be eCommerce-savvy etc.

However, with these obstacles eliminated, would-be adopters of eCommerce are still faced with business issues such as lack of business models, interoperability between eCommerce applications and legacy systems, security and encryption, lack of standards, cultural issues etc.

Given this set of pros and cons, the paper will look into recommendations for the communication industry so that it may leverage on eCommerce to improve its products and services, and enhance its competitive edge.
Thank You

asktoh@ensg.com.sg