

Digital Lifestyle and the Road Ahead

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Abstract

Our lifestyle is more and more digital everyday. Searching the word “digital” in Google resulted in 1.17 billion entries, and the phrase “digital lifestyle” 25.2 million entries. The word “digital” may be substituted by “e” for “electronic”. From Google and other search engines, we can find lots of information on all kinds of “e”, such as, in alphabetical order, eAuction, eBanking, eCommerce, eDating, eEntertainment, and so on up to eYouth and eZoo. From the time we get up in the morning until the time we go back to bed, we are involved with all kinds of things digital, e.g. digital alarm clock, digital home, digital communications systems, etc. This paper will present some of the digital concepts and scenarios, starting with digital convergence in communications, followed by user’s friendly software and services, search for information on the web, personal diary on the net or blogging, eBusiness and eCommerce, digital home and eEntertainment, eLearning and mLearning, eNews and eBook, digital library and databases, and eGovernment and eServices.

1. Introduction

The digital lifestyle is supported by the availability of all kinds of “e”, from

eAuction, eBanking, eCommerce, and so on up to eZoo [3].

To appreciate the digital lifestyle and the road ahead, let us dream of what could happen starting from the time we wake up. At 5:30 am, my alarm clock woke me up with a voice message “you instructed me to wake you up at 6 am to go to the office to meet an important guest at 7:30 am. However, I checked the weather and the road condition. It is raining heavily and there are a lot of traffic jams. If I woke you up at 6:00 am, you would not be able to reach the office by 7:30 am”.

So, I got up and went to the bathroom. The system detected my entering the bathroom at 5:40 am and knew from alarm clock system that I was not just using the toilet and would go back to sleep again. So, it turned on the large screen television so that I can watch and hear the news while in the bathroom.

A voice message was heard and the same text message was flashing at the bottom of the screen. It said that the person I had an appointment with at 7:30 am would not be able to make it. He requested a video conference instead at 7:00 am. So, before 7:00 am I went down from my bedroom to my office at home and started the video conference.

After the video conference, the home computer system reminded me that I had to

buy gifts and flowers for some important persons on that day. So the system connected itself to eCommerce shop and asked me to choose the gifts and flowers to be sent.

The digital lifestyle could go on for the whole day. Some of the underlining principles and scenarios will be presented in this paper, starting with digital convergence in communications, followed by user's friendly software and services, search for information on the web, personal diary on the net or blogging, eBusiness and eCommerce, digital home and eEntertainment, eLearning and mLearning, eNews and eBook, digital library and databases, and eGovernment and eServices.

2. Digital Convergence in Communications

In the digital lifestyle, either in the classroom, at home, or in the office, we learn, enjoy entertainment, and communicate with each other using the Internet, video-on-demand, interactive television, personal digital assistants, mobile phones with digital cameras readily connected to the Internet, etc.

With digital convergence, the computer, the telephone, the television, and the cameras are no longer distinct products with separate functions. Convergence makes it possible to have the power of the digital media to combine voice, text, data, video and all the multimedia in new applications, devices and networks.

From the paper on "Telecommunications Merger Trends in the Context of the Convergence" [6], the author stated that digital convergence has caused two main changes in the communications industry. The first is substitution between telecommunication services. For example, fixed line telephone is more and more substituted by mobile service. The second is the entry of powerful new players such as VOIP. One of the most important developments is the "triple services", i.e. the

bundling of telephony, broadcasting, and the Internet.

There is a relatively new term "podcasting" which is meant to rhyme with "broadcasting" and is a derivative of iPod [15]. The term "iPod" [5] is a generic brand name referring to a class of portable digital audio players designed and marketed by Apple Computer. By the end of 2005, Apple is expected to have sold 37 million iPod. Other manufactures such as Hewlett-Packard are also marketing iPod.

In a creative and unexpected move, Stanford University has teamed up with Apple to offer a variety of audio files, such as news, music, sports, and faculty lectures, available for download from the iTunes Music Store for free, by anyone [1]. Students at an Edinburgh high school are also testing iPod as a teaching and learning tool [7].

3. Users' Friendly Software and Services

From the paper on "How to make money with digital lifestyle aggregators - Part I" [2], the secret to making money is in providing an integrated environment for users to use instant messaging, built-in digital camera, image gallery, cell phone gateways, personal publishing, web services, etc., easily and seamlessly.

Digital downloading must be more users' friendly. Apple allows a user to download music from only one computer at a time. It would be more user friendly to allow downloading from several computers so that the user can mix and match music from multiple vendors.

Members of the same family may share device, home LAN, and schedule but cannot easily synchronize their schedules. Software should be available to use PDAs or PCs to synchronize their schedules conveniently. For example, when a man find out that his meeting the next day is cancelled, the system should remind him that his wife and/or

children have earlier asked him to join them in another function. If he says yes to the machine, it would send instant messages to his wife and children that he can join them the next day.

4. Searching for Information on the Web

In trend with the digital lifestyle, we now look for information more from the web than from the library. From Searchenginewatch.com [10], the numbers of searches per day in million in February 2003 are 250 for Google, 167 for Overture, 80 for Inktomi, 45 for LookSmart, 33 for FindWhat, 20 for Ask Jeevs, 18 for AltaVista, and 12 for FAST. The number for Google includes the number for its partners such as Yahoo. The total number of searches per day as of February 2003 is then 625 million, or about 18 billion searches per month. With the population of about 6.4 billion for the whole world, it can be estimated that the average number of searches from the web is about 3 searches per person per month. Actually, there are only about one billion Internet users. Thus, the average number of web searches for each Internet user is about 18 per month, or one every 2 days. As a matter of fact, some Internet users search several times a day.

The search engine webs are doing very well financially. For example, in the year 2004, Google earned over US \$ 1 billion in net revenue and over US \$ 250 million in profit. Google profits increase 700% in the third quarter of 2005 and its share price increases from US \$ 85 at IPO to about US \$ 350.

All kinds of information are available on the webs which may be classified by their dimensions, e.g. the public web, the private web, the location web, the time web, the communications web, and etc. In the article "The Future of the Web - in Many Dimensions" [9], eight dimensions of web are discussed. They are the Content Web, the

Social Web, the Semantic Web, the Service Web, the Spatial Web, the Temporal Web, the Sensor Web, and the Communications Web.

The Public Web is any web that any users can enter and use. It is similar to the public library where the public can use. The Private Web is similar to the Private Library in the sense that it belongs to an individual who may or may not allow you to use it. The Private Web is popularized by the availability of software for blog that will be discussed in the next Section of this paper.

The Content Web provides content in many forms including HTML, audio and video. The Content Web may be public or private. The Social Web implies what society thinks about its content, including tagging, rating, reputation, etc. The rating may be similar to those in the movies, i.e. "G" for general audience, "PG" for kids under parental guidance, "X" for those with nude pictures, and "XXX" for those with explicit sexual acts.

The Service Web or Web Services include intelligent processing, transactions, computations, and algorithms, i.e. more powerful and well integrated.

The Communications Web includes integrated messaging like land-line phone, cellular phone, email, SMS/HMS, IM, audio/video conferencing, etc.

5. Personal Diary on the Net or Blogging

A new part of the digital lifestyle is "blogging". From www.baclan.panam.edu, the University of Texas - Pan American, [13] "blogging" is "a frequent, chronological publication of personal thoughts and web links. A blog is often a mixture of what is happening in a person's life and what is happening on the web, a kind of hybrid diary/guide site, although there are as many unique types of blogs as there are people. People maintained blogs long before the term was coined, but the trend gained

momentum with the introduction of automated publishing systems, most notably Blogger at blogger.com

In the year 2003, Pew Research Center conducted a phone surveys of 2,515 online adults [18] which found that 2 percent of respondents had their own blogs. Extrapolating to 126 million US adults online (as of December 2003), there would be 2.5 million US adults who blog. The number of 2.5 million is more than the number of those who read USA Today per day.

From January-March 2005, the Pew Internet and American Life Project surveyed 2,871 Internet users [22] and found that 9% of Internet users have created blogs, 6% of the entire U.S. adult populations have created blogs, and 25% of Internet users read blogs. The number of adult readers of blogs is about 40% of the size of the talk radio audience. The blog-reading audience is about 20% of the size of the newspaper-reading population.

In the year 2005, blogging has advanced from personal to business. For example, from www.smallbusiness.blogspot.com [24], “blogging is a key marketing and communications trend for small businesses”. Seminars and short courses on blogging for business are also available, e.g. “Leveraging the Explosive New Blogging Trend in Your Integrated Marketing Mix” [20].

Another important factor contributing to the popularity of weblog is software packages for blogging. The first one called “Pitas” [23] was available in July 1999. It is the first free build-your-own-weblog tool. In August 1999, two more blog tools were released. They are Blogger and Croksoup. Late in 1999, “Edit This Page” and “Velocinews” were launched. All of them are free of charge and enable individuals to publish their own weblogs quickly and easily.

Napster changed the way we consume music. First, it allowed free downloading of

songs from anywhere on the net. Then, it made songs available at a low price like at iTunes. It is now said that “Weblogs are to words what Napster was to music” [12]. In other words, Napster and Weblog are changing our digital lifestyle.

6. eBusiness and eCommerce

The term “eBusiness” means the use of the Internet in the whole of business organizations, such as in the administration department, accounting department, human resource department, manufacturing department, sales department, etc., and including eCommerce.

The term “eCommerce” is limited to the use of the Internet for selling and buying of products and services. It includes advertising and catalogs of products and services by the seller, ordering of the products or services by the buyer, checking of the buyer’s credit by the bank, manufacturing or taking the products from the shelf to be sent to the buyer, transferring of money form the buyer’s account to the seller’s account, as well as providing after-sales services.

All kinds of businesses and industries are using eBusiness and eCommerce. For example, almost 100% of Dell computers are sold on the Internet, 92% of CISCO sales are through the Internet, and 80% of after-sales services at CISCO are through the Internet. Other examples are www.amazon.com that sells books through the Internet, www.ebay.com that allows anyone to buy and sell by bidding through the Internet, and www.etrade.com that provides stock trading through the Internet.

So, in our digital lifestyle, as individuals, we will be buying and selling digitally through all kinds of webs. As employees, we would communicate with each other digitally, perform our work digitally, provide services to the customers digitally, and so on and so forth.

7. Digital Home and eEntertainment

In January 2005, Bill Gates promised at the annual International Consumer Electronic Show in Las Vegas [11], that Microsoft would help millions of consumers stay seamlessly plugged into a world of digital music, movies, video games and television shows. All of those are at home which may be called “digital home”.

Important factors contributing to the success of digital home is high speed or broadband Internet and the falling price of data storages. So, we can put music, photos, movies, and other aspects of our life into a digital format. Bill Gates said the digital home is developing even faster than he expected.

In order to get a reasonable market share of the digital home market, Microsoft joined hands with several organizations. Microsoft entered into partnership with telecommunications companies such as SBC Communications Inc. and televisions networks. Microsoft and MTV inked a deal that will eventually allow us to send cable programs from rock, pop and country music channels to our laptops, hand-held computers and other devices.

Korea’s LG Electronics SA, the owner of Zenith Electronics, planned to build a DVD player/recorder using Microsoft’s digital video recording software. The product will be attached to a television so we can record live shows onto a DVD.

The consumer electronics market in the U.S. is valued at about US\$ 108 billion but dominated by Asian brands such as Sony, Samsung, Panasonic, and LG. So, companies in other countries like the US will have to compete and thus making the price lower for us to be more digital.

Another aspect of the digital home is home security. IP camera will make it possible for you to see what is in the camera view by connecting to the Internet. Figure 1 shows day/night camera that provides color picture during the day and switch to black and white night vision in zero light.

8. eLearning and mLearning

The word “eLearning” stands for learning by electronic means and the Internet is the technology of choice because it is readily available. It will make all persons equal in terms of the possibility of acquiring equal amount of knowledge from the webs.

The main advantage of eLearning is that it is for “anyone, anywhere and anytime”. Anyone means that anybody wanting to learn anything can go ahead and learn it. For example, from a web in the UK, you may log onto a Master’s degree program and register to enroll. A Bachelor’s degree is not required to embark on a Master’s degree program. If you can complete all the requirements for the Master’s degree, you will be awarded the degree.



Figure 1: WebCam with night vision in zero light

“Anywhere” means that you can be anywhere in the world to study courses from anywhere else. For example, someone in the US may log onto a Thai university web and study. Someone in Thailand can also study at a web in the US.

“Anytime” means you do not have to study at the time specified by the university. In a one-hour lunch break, if you take only half an hour, the other half an hour can be utilized to study through the web. If you get up in the middle of the night and could not go back to sleep, you can log onto the web and study.

There is a global network of 107,773 classrooms called ePALS [17], with 5 million students from 191 countries. At Massachusetts Institute of Technology [8], an alumnus, Jon Gruber donated US\$ 1 million to the OpenCourseWare project. As of the year 2005, 1,100 courses are available free for faculty, students and self-learners around the world to use.

The College of Internet Distance Education of Assumption University [16] is expected to be the first university in Thailand to offer eLearning degree programs, which will be MS (Management), and MS (ICT) to start in January 2006.

Instead of the computer, mobile phone may be used for learning and, hence the term “mLearning” for mobile learning. So, while traveling or waiting for something, you can use a mobile phone to connect to the Internet and continue learning.

9. eNews and eBooks

The term “eNews” means news on the net which includes newspapers, magazines, radio and television programs. In 1990, BBC started radio through the Internet. In 1995, CNN established www.cnn.com to make news available on the net 24 hours a day and 7 days a week.

It is more convenient to get information from CNN through the Internet than through

the actual television. On the Internet, if you are interested in any particular topic, you can click directly to that topic, e.g. weather, business, sports, politics, law, technology, science and space, health, entertainment, travel, and education. On an actual TV, if it is broadcasting about weather, you have to watch weather and nothing else. If you still want to watch any other program, you have to wait until it is the time the TV station has scheduled to show that program.

The term “eBook” is a computer in the shape of a book with either one page or two pages. You can download a book or several books onto your eBook and take it with you anywhere. When you like to have more new books, you can connect your eBook to Internet, e.g. www.planetbook.com and www.openebook.org to download them onto your eBook. The term “ebook” with the lower-case “b” is used to stand for the book in digital form ready for downloading, and not the machine. There are free ebooks available such as at the Net Library [21]. Most universities now have ebooks available. For example, as of October 2005, there are 3,331 ebooks at Assumption University.

10. Digital Library and eDatabase

The phrase “digital library” is also known as “electronic library” or “eLibrary”. Libraries and related agencies in the US pioneering the use of electronic-information technologies to extend collections and services have formed “The Digital Library Federation (DLF)” [14].

All universities offering eLearning have established their digital libraries. For example, students at the College of Internet Distance Education of Assumption University can use the digital library [19].

Google, Harvard University Library, Stanford University Library, University of Michigan Library, New York Public Library, and Oxford University Library started a

project to scan copyright-expired books and documents to be in the web <print.google.com> for anyone in the world to read and print out free of charge. The first part of the Google web is available in November 2005. Other organizations like other search engines competing with Google have also announced that they will have their own free collections on the net.

Associated with the digital libraries is the eDatabase. For example, at Assumption University library, there are OMNI File, ABI/Inform, Dissertation Abstract Online, EMERALD FULLTEXT, Thai Thesis Abstract, ACM Digital Library, IEEE Computer, Proquest Nursing Journal, and Westlaw International.

11. eGovernment and eServices

The Term “eGovernment” means providing services from the government through the Internet. Perhaps, a more meaningful term for eGovernment is “eServices”. The main advantages of eGovernment are saving time and cost, availability of 24 hours a day and 7 days a week, increase in transparency of government, and reduction of corruption [4].

The main reason that citizens demand eGovernment is because they have seen the private sector providing services through the Internet efficiently and effectively and so they wanted the government to do likewise.

Everybody has to use government services from time to time. We used to travel to government offices to get the services. Now we can get government services through the Internet. As an example, in 2005, more than half of those who have to pay income tax in Thailand used eTax or eRevenue or tax payment through the Internet.

12. Concluding Remarks

The sample underlining principles and

scenarios presented in this paper clearly show that our lifestyle on the road ahead will be more and more digital. For example, all communications will be done digitally through multipurpose digital devices. More software and services will be available with more users’ friendliness to do everything digitally. More information will be on the webs and so we will search for information more from the webs than from anywhere else. More people will publish digitally on the webs and more people will read them. eBusiness and eCommerce will become more popular. More home will become digital and more entertainment will be available digitally. More than 50% of learning will be eLearning rather than classroom-based learning. We will watch more eNews than television. We will read more ebooks. More eGovernment and eServices will be available. Those are just some examples of the digital lifestyle which will continue to improve and be more and more digital for the next several years to come.

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When The Road Ahead came out, people were still navigating with paper maps. They listened to music on CDs. Photos were developed in labs. If you needed a gift idea, you asked a friend (in person or over the phone). But as digital technology makes it easier to work at home, then you can commute less often. That, in turn, makes it more attractive to live farther away from the office, where you can afford a bigger house than in the city center. It also reduces the number of cars on the road at any given time. Over time, these shifts would mean major changes in the ways our cities work and are built. We're starting to see some of these effects come into play now, as office workers stay home because of COVID-19. The Road Ahead's digital offering has been completely redesigned to provide an online experience unlike any other. A whole new platform has been developed from the ground up to create a truly digital experience for members on any device. Content in the digital Road Ahead will be updated regularly and feature exclusives for subscribers. We'd love to hear your feedback, so please let us know what you think. For more great lifestyle, motoring and travel content, as well as the chance to win great some great prizes, check out our fully redesigned RACQ Living website. Check out the digital Road Ahead now. Share this. The Author. Jim Mathers. RACQ's Head of Publishing and has been involved in journalism and corporate communication for more than 30 years. More Posts Like This One. Digital transformations aren't designed for short-term gain. Thinking of a digital transformation as a set of activities designed to enhance your business processes or a solution to today's issues instead of looking at it as a way to achieve agility, ensure your survival and engage a future filled with uncertainties could end up being dangerous. While disruptive companies are creating new ways of doing business, some companies are just trying to catch up with the new business engagement methods created by digital channels of communication. Disruption is not new. It has been happening throughout this young planet's history.