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Internet applications, sites, trends and happenings

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This column aims to draw your attention to various interesting Web sites that I have come across and that might appeal to you, and to keep you up to date with news and views on Web trends, developments and statistics. Essentially it offers a personal selection rather than comprehensive coverage.

Consumer on-line spending

The question of whether or not consumers will pay for on-line content has been debated since the début of the World-Wide Web in 1994. Charging for content has always been controversial and up to now there has never been consistently reliable information about the size and characteristics
of the market for paid on-line content. The Online Publishers Association (OPA), the leading industry trade organization for on-line content providers, has contracted with the research firm comScore Networks to provide regular reports on the market for paid on-line content. The first report, covering the full year of 2001 and the first quarter of 2002, shows that this market is experiencing a period of spectacular growth: US consumer spending for on-line content in the first quarter of 2002 was $300 million, an increase of 155% over a year ago.

As Internet business models mature, on-line publishers will add more premium paid content offerings to their products and US consumers, defying the conventional wisdom, will respond with their wallets. Findings reveal that between the first quarter of 2001 and the first quarter of 2002 the number of US consumers who pay for on-line content increased by 5,3 million to reach 12,4 million people or roughly 9,2% of the US Internet population. This reflects a growth in the acceptance rate for on-line paid content of 75%.

According to the OPA report, consumers in the US spent $675 million on on-line content in 2001 – a whopping 92% increase over 2000 spending levels. Spending in nearly all content categories grew more than 100% in the first quarter of 2002, compared to the same period last year. Also in this first quarter, the top three categories – business content, entertainment, and personals and dating – accounted for almost 60% of all on-line content spending. The report indicates that a sharp increase in the number of on-line content buyers was a primary driver of sales growth. Some 12,4 million US consumers paid for on-line content in the first quarter of 2002, up from 5,3 million in the first quarter of 2001. As a percentage of the total US Internet population, consumers of paid content increased from 5,3% in the first quarter of 2001 to 9,2% in the first quarter of 2002. Of those who subscribed for monthly payments, 74% were still visiting fee-restricted content areas 12 months later and the average conversion rate for those who signed up for free trial offers becoming paid subscribers was 17,4%. The study also found that 1700 sites are estimated to be charging for on-line content and that 85% of the money spent by US consumers for on-line content goes to just 50 sites,

while 97% of the money spent by US consumers for on-line content goes to only 100 sites. Interestingly enough, the top five sites based upon paid content revenue in 2001 were Real.com, WSJ.com, Match.com, Yahoo.com and ConsumerReports.org. Read more at http:/www.online-publishers.org/opa_paid_content_report_final.pdf.

Populations on-line – lies, damn lies and statistics

According to *Silicon Valley News*, nearly half of Japan's 120 million citizens were on-line by the end of June 2002. According to the Ministry of Public Management, Home Affairs, Posts and Telecommunications, the number of Internet users in Japan totaled 56 million – equivalent to 44% of Japan's population aged six and over and up from 37% in 2001. Around 65% of Japanese Internet users logon to exchange e-mail, while 46% search for shopping information and free coupons. On-line shopping is actually conducted by almost 20% of Internet users, while nearly 16% use the Internet to chat. Of the total, approximately 6,6 million Japanese people access the Internet solely via mobile phones. Lower access fees and recent growth of DSL, a high-speed Web connection through fixed phone lines, are expected to boost Internet use (http://www.siliconvalley.com/mld/siliconvalley/news/3777521.htm).

The *Silicon Valley News* notes that the latest statistics reveal that Japan now ranks 16th in the world for Internet users. Sweden at nearly 65% ranks first, with the United States ranked fourth at 60%, with 166 million users. On the other hand, according to WebSideStory's Statmarket service, China has the second largest Internet population in the world and in July 2002, China accounted for 6,63% of all global Internet traffic. Japan, which has the third largest on-line population in the world, accounted for just over 5% of global Web traffic, while the UK and Canada accounted for almost 4% each, and Germany for 3,6%. The USA still has the largest on-line population with 42,6% of all global Internet traffic. However, the proportion of Internet surfers in the US has dipped slightly from the estimated 45% who were on-line in January 2002. According to Statmarket, the current data indicate a trend of rising Internet user populations in the Far East. At the beginning of 2001, Germany accounted for the largest majority of non-U.S. Web surfers with 5,6% of all global Internet traffic, followed by Canada with 5% (http://www.statmarket.com/cgi-bin/sm.cgi?sm&feature&week_stat).

Monday is the best day for surfing

We all know about the Monday morning blues at the office – and this may account for Monday being the most popular day to surf the Web! According to WebSideStory's Statmarket, Mondays account for the most Internet traffic of the week – with Fridays a close second and with weekends lower in comparison. Internet use worldwide on any weekday is higher than on Saturdays and Sundays, indicating that people are not spending much of their weekend leisure time on-line. On average, Monday accounts for just over 15% of Internet traffic for the week worldwide. In contrast, Saturday and Sunday account for the least amount of Internet traffic, with 13,5%, and 13,7% respectively. 'What we're seeing is that people tend to surf the Internet during the workweek more than at home on the weekends', said Geoff Johnston, vice president of product marketing for StatMarket. 'This may imply that much of their personal Web use takes place at work. Or perhaps people have better things to do on the weekend than surf the Internet' (http://www.statmarket.com/cgi-bin/sm.cgi?sm&feature&stat052902).

Education Web sites and e-learning

New data from Nielsen-Netratings indicate that traffic to education and university Web sites in the US rose by 34% for the week ending 14 July. Nearly 3,3 million Internet users in the

US visited an education or university Web site during this one week in July as Web surfers started preparing for the fall semester. Traffic to MIT.edu, for example, rose by 80% to 230000 unique users, compared to 128000 visitors the previous week. Columbia University drew 191000 visitors, an increase of 54% on the previous week, while Ohio State University attracted 213000 Internet users. The University of Texas drew 218000 visitors for the week ending 14 July, a rise of 34%, while traffic to Virginna.edu grew 29% to 192000 Web surfers. Traffic to Web sites offering information on financial aid for students also grew. For example, the US Department of Education Web site drew 533000 Internet users to its sites, a 28% increase in traffic, while Upromise.com, an on-line college savings network, drew over 506000 visitors, a rise of 89% on the previous week (http://www.nielsen-netratings.com/).

In addition, eMarketer reports that 70% of US college students use their campus libraries' Web site for some of their assignments. According to a survey undertaken by the Online Computer Library Center, only 9% of college students say that the campus libraries' Web sites do not have the information they require. A further 20% of college students did not know their school's library had a Web site! Around 67% of students in the US use Web-based electronic journals, while 57% use Web-based library catalogues. Approximately 42% of college kids use on-line search engines for all their assignments, compared to 20% who use Web portals and 12% who use course-specific Web sites http://www.oclc.org/home/.

On the other hand, Europeans are apparently unimpressed with e-learning. Almost two thirds of Europeans rate e-learning as either 'fair' or 'poor', according to a new ETV survey. Only one-third of all respondents rated the quality of e-learning as 'good'; while 46% rated it as 'fair'. Fifteen per cent believed e-learning to be 'poor'. Only 1% of respondents rated e-learning as 'excellent', with merely 5% saying it was 'very good' (http://www.trainingvillage.gr/etv/default.asp).

US college student spending

A new Harris Interactive study indicates that college students are the most wired group in the US and spend $200 billion per year. Technology, and therefore spending on technology, plays a central role in the lives of college students. The survey found that 93% of American college students regularly use the Internet, making them the most connected segment of the population. Around 92% of students aged 18 to 30 own a personal computer, while 13% plan to buy a PC in the next year. In addition to this, mobile phone ownership among students stands at 69%, with 18% planning to buy a cell phone in the next year. The study also found that 15% of college students say they are among the first to buy a new technology device or gadget, compared to 53% who say they are likely to buy one after seeing others try it. Just 32% of students say they tend to wait a long time before purchasing new technology devices or gadgets.

The most recent findings from the 360 Youth/Harris Interactive College Explorer Study demonstrate the significant power of the U.S. college market, with spending at nearly $200 billion dollars a year. It is a large and influential market, with over 15,6 million students, and is a vital segment for marketers concerned with serving the needs of young consumers. The national study, made on-line by Harris Interactive during the Spring 2002 semester, measured spending among college students aged 18 to 30, a group that represents 72% of all college students. The sample included all types of students (full-time, part-time, 2-year, 4-year, graduate) and looked at a broad range of consumer behaviours and category buying habits. The study covered a wide spectrum of areas, including technology, entertainment, travel, transportation, telecommunications, personal care products, financial services, snack foods and beverages.

According to the study, college students spend an average of $287 a month on discretionary items (spending on anything other than tuition, room or board, rent or mortgage, books and school fees). A good portion of that discretionary spending is on beverages and snack foods, with total spending on those categories projected at $11,4 billion per year. Including weekend days, college students average 11 hours per day of unscheduled time (when they are not sleeping, working, studying or attending class). It is not surprising then, that spending on entertainment and leisure activities represents a significant portion of discretionary spending. Projected annual spending (in millions) includes $4,607 on vacation travel, $6,784 on purchasing videos, DVDs, video games and music CDs and tapes, $1009 on reading material (not for use in school), and over $2000 on entertainment such as movies and concerts. Car ownership is another important consumer behaviour among this group. Whether they live on or off campus, 80% of college students have a vehicle for their personal use. Of those that have a car, 71% either own it individually or jointly with a spouse, with only 29% using a car owned by a parent or other relative. Of students, 17% say they plan to buy a vehicle before the end of 2002.

Summing up the importance of the college market, John Geraci, vice president of Youth Research at Harris Interactive, points out that 'the college consumer is easily overlooked since most information sources that marketers rely on for tracking consumer behavior tend to under-represent college students. However, it is a consumer group that marketers should recognize as offering substantial opportunity. Connecting with consumers during the college years can pay great dividends, both now and well into the future.' Further details can be found at http://www.harrisinteractive.com/news/allnewsbydate.asp?NewsID=480.

The joys of working from home

ElectricNews.Net reports that as many as a third of Americans would forego a pay rise in order to work from home. A study found that 54% of Americans think that telecommuting would improve the quality of their lives. Among Americans who commute for an hour or more each day, 66% said that they believed that telecommuting would help them strike a better work–life balance. Around 46% of survey respondents felt that the quality of their work would improve if they were able to work from home, while 46% claimed that they would be a better spouse or parent if they were given the opportunity to telework. The survey also found that workers have concerns about telecommuting, with 20% of respondents fearing that they would not have enough contact with their fellow workers if they telecommuted.

The poll was contained in a report entitled 'Anytime, anyplace, anywhere: the changing face of work,' which was sponsored by the Positively Broadband Campaign, an industry body that promotes the use of broadband. The Winston Group, that polled 1000 registered voters in April 2002, conducted the survey. 'Almost 20% of Americans are spending an hour or more commuting every day, and I would suspect that virtually everyone who does so is sick of it', said Harris N. Miller, president of the Information Technology Association of America, the group behind the Positively Broadband Campaign. 'That is why we think e-work is one of the applications with the power to catapult broadband to the next level.'

The new report follows a survey conducted in the summer of 2001 by the International Telework Association and Council (ITAC), a non-profit organization that promotes telework. ITAC found that 80% of telecommuters said that they are more satisfied with their jobs, are more productive and feel more loyal to their employers. Three-quarters of at-home teleworkers reported a major increase in productivity and work quality.

Teleworking is also growing in Europe. According to a recent report the by the EU-backed Institute for Employment Studies, entitled 'Modelling ework in Europe', the number of

individual e-workers could grow from 9 million in 2002 to almost 27 million across the EU by 2010. Read more at http://www.enn.ie/news.html?code=8235387.

Wireless 'cloud' hanging over your head

This autumn, residents and tourists in Athens, Georgia, USA can be part of a wireless experiment that is wide open for innovation. The University of Georgia's New Media Institute has joined with local government to create WAG, the Wireless Athens Group, to build a 'cloud' over several blocks of the downtown area where anyone with the right equipment (namely an 802.11b card) can have free Internet access. This 802.11b card, also known as Wi-Fi or Wireless Fidelity, is a current wireless-networking standard, transmitting data at 11 Mbps. The cards are available for about $100 from most electronics stores and can be used in a laptop, PDA or pocket PC. The system also works with Bluetooth technology.

The local government is essentially giving the Wireless Athens Group ten poles in the downtown area and power for them. The cloud will be just one more service that can be offered to high tech industries that may want to relocate to Athens. Within the boundaries of the cloud, Wi-Fi equipped laptops and PDAs can get free Internet connections for everything from videoconferences to phone calls. Currently, the cloud now covers about three blocks, and it will soon expand to 24. From a park bench or an outdoor cafe, a student, office worker, or tourist can access the Internet if they are in range of the WAG boxes that are mounted on light poles around the city. Since the signals do not penetrate most walls or buildings, the cloud will be primarily an outdoor experience. Signals are sent back to servers at the New Media Institute, the hub of the wireless experiment.

'A lot of people think that technology is holding back wireless communication, but it's not', said Scott Shamp, director of the University of Georgia's New Media Institute. 'It's compelling uses that are holding back wireless. Nobody knows what it's good for because they haven't had an opportunity to experiment. And so what we're about is experimenting with new types of communication.' Finding new types and answers to questions such as what can wireless do will be one assignment that Shamp's students at Georgia's School of Journalism and Mass Communication will take on this fall. They will be assigned to work with local merchants to come up with ideas that use wireless capabilities to bring in business (http://www.cnn.com/2002/TECH/science/07/31/coolsc.wireless.cloud/index.html).

X marks the spot

A low-tech approach to finding wireless Internet connections is fast becoming a global phenomenon. Known as warchalking, the idea has become so popular that it has even spawned a line of clothing.

In late June, Web designer Matt Jones came up with the idea of using chalk marks on pavements and walls to reveal the existence of wireless networks that anyone could use to surf the Net. He designed a basic set of symbols that summarized the types of wireless networks people would find, gave it the name 'warchalking' and published his ideas on his Web log.

The idea of 'warchalking' derives from the early days of computer networks when curious hackers would engage in 'wardialling' expeditions which involved phoning lots of numbers to see which ones answered with a data, rather than a dial, tone. The advent of wireless computer networks that let people connect to the Net via a radio link has given birth to a new hobby among curious hackers. Now instead of 'wardialling' they go on 'wardriving' or

'warwalking' expeditions. On these trips they carry a laptop or handheld computer fitted with software that can spot wireless networks and plot where they are.

Warchalks provide a shorthand to help people find and use the wireless network nodes, which are springing up in cities and towns all over the world. They work just as well for the cooperative 'open' networks, where anyone is invited to take part, as they do for corporate ones. Each warchalk is designed to reveal key information about the node to help people use it. There are different signs for open, closed and encrypted nodes. The information supplied in warchalks for open networks should give people enough to let them tweak their wireless network settings and use the wireless access.

When many companies set up their own wireless networks within their buildings – meaning that their employees could use their laptops without having to use cables – it opened up all sorts of possibilities. The number of wireless networks is proliferating and many are being created as free Nets that serve anyone who wants to use them. Warchalks are a good way to let people know of their existence and zero in on their exact location. They are beginning to appear in places such as Maryland, Copenhagen, London and San Jose.

In the UK the idea of chalking up networks could be given a boost by the decisions of companies such as British Telecom and Megabeam to set up wireless networks that people can use, albeit at a price. The London School of Economics has set up a wireless network that students can use for Web access while near its buildings (http://news.bbc.co.uk/1/hi/technology/2144279.stm; http://news.bbc.co.uk/1/hi/in_depth/sci_tech/2000/dot_life/2070176.stm).

Information science publishing

Idea Group Inc., the parent company of Idea Group Publishing (IGP), has recently acquired a new imprint called 'Information Science Publishing (InfoSci). Dr Mehdi K. Pour, President of Idea Group, Inc. said that 'Information Science Publishing imprint titles and on-line products provide an edge to researchers, educators, students and the libraries of academic institutions, for learning and keeping up with the most recent Information Science related research findings, applications and innovative technologies'.

The primary objective of the publications released under the 'Information Science Publishing' (InfoSci) imprint is to publish the latest research findings of scholars and researchers in the field of information technology management and science, where publications focus on the areas of education and library science or, more broadly, information science (IS). The secondary objective of the Information Science Publishing imprint is to publish the on-line aggregated database called 'InfoSci-Online.' This comprehensive database consists of eDocuments (book chapters, journal articles, proceedings, papers and teaching cases) all released under Idea Group Inc. imprints ('Idea Group Publishing', 'Information Science Publishing' and 'IRM Press').

In both publishing titles related to information science (IS), as well as launching InfoSci-Online, Information Science Publishing is not only publishing but applying the research and findings that allow such technologies to thrive in both academic and corporate environments. It is the aim of the Information Science Publishing imprint to publish the latest research findings in IS in the shortest period of time, utilizing the latest publishing techniques available today.

As stated by Dr Mehdi K. Pour, 'to keep up with the rapid changes taking place in information technology throughout the world, publishers of titles in information technology must meet the challenge of publishing titles in information technology at the same rapid

pace of the changes that take place within the discipline.' The authors/editors of Information Science Publishing books will be selected from prominent research and academic institutions throughout the world and will be producing the latest research in the field of information technology management and science.

The anticipated release of the first books under the Information Science Publishing imprint is July-August 2002. Among the upcoming titles of Information Science Publishing are topics such as:

- Web-based education: learning from experience
- Usability evaluation of on-line learning programs
- Design and implementation of Web-enabled teaching tools
- Designing campus portals
- Challenges of teaching with technology across the curriculum: issues and solutions

The launch date for InfoSci-Online was set for 1 September 2002.

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