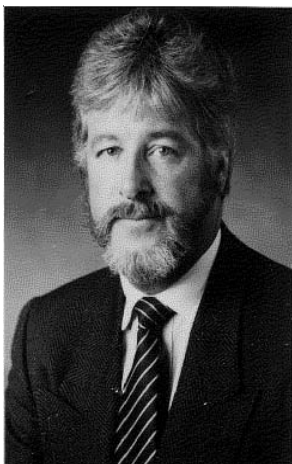


INDIA

Youth drives India's mobile phone revolution

Global Talk Gets Cheaper

The cost of calling overseas has gotten cheaper, which in turn has made outsourcing more attractive. A prime example of outsourcing and expanding in India is Wipro Ltd. in Bangalore. This is an engineering and information



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technology consulting firm. Five years ago they had three thousand employees, and now they have expanded to 27,000, with their revenue increasing by tenfold. Wipro's employees are only paid a fraction of what engineers in the United States are being paid. The global communication fiber optic line costs have fallen like crazy and this is making India's call center operators and engineers more attractive.

increased bandwidth, compression, and secure methods of connectivity. The fiber optic lines connecting under the Pacific Ocean from the United States to India can now handle 128 voice calls at \$11,000 a month; one fourth of what it cost two years ago. These lines have increased sevenfold from the years 2001 to 2002. This has allowed free calls, emails and internet traffic into India's call centers. Email has allowed written communication to be much faster and efficient. What use to take days to complete can now take minutes.

Telecom charges have dropped from 20% to 10% of the overall operating costs overseas in the past three years. Although telecom charges are 3% of operating costs in the United States, this has played a major role in the attractiveness of overseas locations. The savings has allowed companies to relocate information and communication intensive industries, but location is now a secondary matter since they are farther from the United States.

A big reason for the increase in offshore outsourcing is due to the change in telecommunication costs, with

Mobile phones are outnumbering fixed lines in India, and the youths are driving this trend. These devices were first introduced in India ten years ago. In 1994 when mobile telephony was introduced, there were a limited amount of service providers such as AirTel and they were being heavily regulated. The users dealt with prohibitive license fees, high call charges such as thirty cents per minute and expensive handsets. Only the privileged were using these devices. Now times have changed, and license fees have been more reasonable and call charges are more affordable. Broadband is just being introduced in India next year.

Incoming calls were made free since last year. In January 2003, India had 10 million mobile subscribers. In December 2003, there were a total of 28 million registered mobile phone users. This number is continuing to grow with 1.5 million mobile subscribers a month.

The youth market is pushing this trend that appears to be a status symbol and style statement. Many can not imagine life without a mobile phone. For some it represents how rich you are with the better phone you have. Cheating is also becoming a factor when it comes to exams. Students use text messaging to obtain answers.

Mobile phones are also attractive to adults. Many adults use their mobile phones as their office, address book and livelihood. The mobile phone allows individuals to always be available to their clients. You can see people from white collar to blue collar workers carrying cell phones and offering them as contacts; chauffeurs, plumbers, masons and even domestic maids in Delhi and Mumbai.

There are now more mobile phone operators available in India. Some of the popular ones are Orange, BPL,

Companies	Pg	Companies	Pg
Aviva (AVIVAF)	2	Prudential (PRU.LN)	2
Dunkin Donuts (AED)	2	Samsung Ele (SSNLF)	2
Epson Corp (SEKEF)	2	Semiconductor Man (SMI)	3
IBM (IBM)	3	Taiwan Semi (TSM)	3
Krispy Kreme (KKD)	2	Wipro (WIT)	1
Motorola (MOT)	3		

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Reliance and Tata. Even fixed line providers such as BSNL and MTNL in Delhi and Mumbai are offering mobile phone service. Six million mobile subscribers have registered with these two providers alone in the past eighteen months. MTNL believes India's mobile subscribers will grow to 150 million in the near future.

INDIA AND BRITAIN

Insurance risk goes to red alert

India seems to be top on the list for being the most dangerous place to do business. This is according to reports from Aon, the world's second largest insurance broker. On the Global Terrorism Risk Map, Iraq places fifth after all the kidnappings that have been occurring there. But somehow the world has forgotten India as being on the danger list. Aon's counter terrorism and political risk staff research shows that India has suffered more attacks between February 2003 and February 2004 than any other location in the world. However, this factor has not stopped the flourishing hi-tech sector in this country from growing. Other countries have been outsourcing jobs to India with services such as call centers and back office computing. Some firms to follow this trend are British companies, Lloyds, TSB, Aviva and Prudential.

Aon's director of counter terrorism advised Indian call centers to have contingency plans in case these locations come under terrorist attack. They also advise companies to be less conspicuous by not making their logos visible or setting up in quiet locations. The companies can also include in their budget security measures or reconsider their location. Most companies believe the highest attack risks are in locations such as Iraq, Colombia and Saudi Arabia. But India is in the top five lists of places where companies want risk insurance. Insurance against bomb blasts should also be a consideration especially after the hit in 2003 on HSBC in Istanbul. But it appears that political problems such as factories being confiscated or contracts being torn by federal governments are a big factor also. With outsourcing to India being such a popular trend these days, it is not surprising that insurance risk is such a factor and India being top on the list for terrorist attacks.

JAPAN

Seiko, Sanyo to Merge LCD Efforts

Two Japanese companies will merge their liquid crystal display operations on October 1st to form the world's fourth largest LCD maker in terms of sales; Seiko Epson Corp. and Sanyo Electric Co. Both companies are looking to be the world's top maker in small LCD screens for mobile devices. Sharp is currently estimated to be the leader in small LCDs. With the two companies merging, their annual LCD sales will likely be competitive to Sharp's.

Samsung Electronics Co. of South Korea is the world's largest LCD maker. Seiko Epson is ranked sixth globally in terms of LCD sales. Seiko Epson are makers of printer and electronic devices and considered the world's top supplier of mobile phone color LCDs. Sanyo, a maker of consumer electronics such as televisions and digital cameras, is ranked tenth in LCD sales and is one of the leading makers of LCDs used in digital cameras. When the two companies merge, Seiko Epson will have a 55% stake in the company and Sanyo would take the remainder. The merged companies will be called Sanyo Epson Imaging Devices Corp. The combined sales of the merger are about 360 billion yen or around \$3.4 billion U.S. for the year ending March 31, with Seiko Epson's sales to account for more than 60%. Seiko Epson estimates to make 299 billion yen in its display sector for this fiscal year, with 80% from its LCD business.

As demand for mobile phones grows, the small LCD market will expand. The LCD market overall is continuing to grow and the competition to offer low cost higher resolution displays globally will intensify.

Sushi with doughnuts?

Krispy Kreme doughnuts is a chain based in Winston Salem, N.C. They currently have around 400 restaurants in the United States with stores also in Australia, Britain and Mexico. Krispy Kreme also has plans to enter markets in Asia such as Japan and South Korea.

Krispy Kreme has been speaking on and off with the company Global-Dining. Global-Dining operates fifty theme restaurants in Japan. They also have two restaurants in Los Angeles. Krispy Kreme even invited Global-Dining's Chief Financial Officer, Michael Nishi, to the United States to visit their factories. It seems Global-Dining is interested in working with Krispy Kreme, but Global-Dining has not heard back from the company since meeting with them in February.

The United States company may also be in talks with other Japanese firms. Dunkin Donuts, another United States based doughnut chain tried to step foot into the Japanese market in 1998, but was unsuccessful against the Japanese market leader Mister Donut. Mister Donut is a chain owned by Duskin Co., a cleaning equipment company.

From Krispy Kreme's plans and announcements in February, it seems they do have an interest in entering the Asian market and are eyeing other opportunities as well.

CHINA AND TAIWAN

Chip Makers Exchange Barbs In Corporate Espionage Suit

Shanghai based Semiconductor Manufacturing International is China's largest custom chip maker. Taiwan Semiconductor Manufacturing and Semiconductor Manufacturing International have each been bickering about the other claiming corporate espionage. Motorola owns 11 percent of the Chinese company Semiconductor Manufacturing International that just recently debuted on the New York Stock Exchange with dismal results. The company raised \$1.7 billion for its initial public offering and opened on the first day at \$17.50 and eventually fell eleven percent to \$15.52. A factor that may have caused the shares to fall was the company's Chief Financial Officer retracting a statement right before the offering regarding possible additional external financing. It turns out they will require additional external financing for capital expenditures through the year of 2005.

Semiconductor Manufacturing International is also being accused of stealing trade secrets and infringing on Taiwan Semiconductor's American patents. Taiwan Semiconductor filed a lawsuit against them back in December. Supposedly, a former engineer from Taiwan Semiconductor had copied ninety percent of the process flow and shared this information with Semiconductor Manufacturing. The Chinese company may have also enticed important employees from the Taiwanese company to work for them by promising stock options. They may have been asked to share proprietary information from Taiwan Semiconductor. The Chinese company does plan to defend itself and states they do not need the trade secrets of other companies.

Taiwan Semiconductor is offering the more advanced technology currently. Semiconductor analysts believe Semiconductor Manufacturing International should take this as a warning to increase their research and development so their technology will not trail behind.

EUROPE, ASIA AND THE UNITED STATES

Talking to your car may become natural

The latest technology developments being worked on are to allow humans to be able to have a conversation with their car dashboards. This probably will not become reality until five to ten years down the line. Currently voice recognition systems are being used in call centers, home PCs and mobile phones, but they are far from being able to have a natural conversation with a human.

Some features available in high end cars allow the computers to tell you how much fuel is available, where you are and give you instructions on how to get to your destination. With these functionalities, a driver never has to take their eyes off the road. Of course cars are not able to talk to you like a human now. There have been complaints about the current functionalities because users have to learn certain commands. This is inconvenient because users may need to look through their manual to figure out what the commands are. IBM is working on developing a way so drivers can hold a conversation with a car system. The car will answer back and give the driver and the car a two way conversation that is realistic. There are other companies also working on this technology.

Another feature the car system may have is being able to access information from the internet to obtain traffic updates and emails. Also, the system will be able to detect your speed, acceleration and stress level of the overall car so if you are driving too fast, some features may be disabled. For example, if you brake abruptly, the system may halt conversation until it feels you have resumed a normal speed and stress level. The technology of the future may still be awhile away, but it is closer than you realize.

File-sharing to bypass censorship

File-sharing for music has been a hot topic these days, but by 2010, file-sharing may be used for swapping news to eliminate censorship. Cambridge University's Professor Ross Anderson is the man behind the whole peer to peer (P2P) file-sharing concept. He believes file swapping news will be the next big file sharing phenomenon. People would be able to post stories anonymously using P2P services. This would be different from news on current sites in terms of censorship and selectivity. Certain news is ignored by major news services.

Only interesting news to Americans or Western Europeans are syndicated because that is the news that brings in the money.

If the news that is ignored can somehow reach the radio stations or local newspapers, then there is a way to break syndication. Professor Anderson believes a method to do this is by using an improved version of Usenet, the internet news service. This could make censorship difficult to impossible. However, there would need to be international agreement to make this function properly. Of course there are always some concerns of criminals and terrorists abusing this. Professor Anderson believes watchdogs such as Internet Watch Foundation would monitor these news broadcasts also. Internet Watch Foundation currently monitors internet based child abuse.

Analysts believe this type of news dissemination will allow more voices to be heard and allow more personal testimonials. But something like this will take time to develop. There definitely will be political obstacles because once there is technology to break censorship, then censorship will no longer be there. Most governments are not willing to give up that kind of control easily.

Websites 'failing' disabled users

A study carried out by researchers at London City's University for the Disability Rights Commission shows a majority of the websites out there now are not usable by disabled web users. Thousands of websites were used in this study with hundreds of sites put through usability testing. Some of the sites that were included in this research were government, business, e-commerce, leisure and web services such as search engine sites. The visually impaired seemed most significantly affected out of all the disabled user groups.

Even after the web has been in popular use for the past ten years, the internet's daily activities have been all but unusable for some disabled individuals. Some of the activities that most of us can do online like booking vacations, managing banking activities, buying event tickets or even surfing for affordable credit cards are either difficult or impossible for disabled individuals.

What constitutes a well built website? Well, here are some factors: text should be provided for non-text elements; good color contrast between foreground and background elements; functionality should still be available when scripts and applets are not on or not supported; movement should be avoided on a webpage; avoid pop-ups; do not direct a user to

another page without informing them; place information in manageable amounts on a page; clearly identify links; and use clear and concise language.

Website owners should improve accessibility or face possibilities of legal actions. These businesses have a social responsibility as well as a legal duty to all individuals. Creating websites that are accessible for disabled users should not be very difficult or expensive to do. The 1995 Disability Discrimination Act requires information providers to make their services accessible.

Some common issues disabled users run into are cluttered pages, navigation that is confusing, images that do not provide information and text being illegible due to the background.

The Royal National Institute of the Blind feels there needs to be more awareness raised by the government regarding this issue. The organization provides advice on how to make sites more user friendly for the disabled in the United Kingdom and some website owners are responding.

Northern Ireland based Texthelp Systems developed a new software called Browsealoud that allows webpages to have speech capability. A magazine called New Statesman will be using this software for their webpages. Texthelp Systems hopes more government sites will use this software.

ABOUT Roberts & Ryan Investments Inc

Please welcome our new Trading Manager, Keith Campbell to the firm.



From left to right: Daniel W. Roberts/President, Keith Campbell/Trading Manager, and Tuan Ngo/ Operations Manager.

This is a timely newsletter for our institutional clients. The information herein has been assembled with the utmost attention to details, however, as with all research, the accuracy cannot be guaranteed.

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