

Trends In Information Technology

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Abstract

In this paper, trends in information technology, the opportunities and applications of information technology is discussed. The statistical analysis of internet activity and telecommunication is explained.

Keywords: Tandy DeskMate, and Atari GEM, Commodore VIC-20 , Timex/Sinclair 1000, "BASIC", Atari 800, TRS-80 series, Atari ST, modem, Pseudonymity, Hynniewtrep National Liberation Council.

1. Trends in Information Technology: In the mid '80s, one of the major trends in computer information storage technology was to begin moving away from cassette tapes, 8" floppy disks, and cartridges, in favor of 5.25" diskettes and hard disks. Integrated keyboards became less common, being substituted with easier-to-replace detachable keyboards (except for laptops). Windows 1.0 was released in 1985, according to wikipedia.org, but failed to gain much popularity. In late 80's trends may have changed information technology more than in any of the years since then. More and more computers were IBM-compatible rather than only being able to exchange information and programs with other computers from their own brand name (as most Atari, Commodore, and early Texas Instruments computers did). Fewer computers were sold with television output built-in. The use of graphical user interfaces started to become somewhat common, including Windows 2.0, Tandy DeskMate, and Atari GEM. Smaller 3.5" floppy disks began to replace the 5.25" flexible diskettes. In early 1980s personal computers were becoming widespread for the first time, and some basic models were available for \$100-200, like the Commodore VIC-20 and Timex/Sinclair 1000. Telephone modem technology was starting to be used to connect to online information services and bulletin board systems. Another of the trends which extended from the late '70s through the mid '80s was that a large number of computer owners learned the "BASIC" programming language (it was built-in on many computers) and could create their own programs; many computer manuals (Commodore, T/S 1000, Atari 800) provided detailed information on learning it . Early 1990s information technology trends during this time period included increasing use of online information services (like AOL, PC-Link, CompuServe, etc), improving video quality, and digitized sound. Most new computers had at least 16-color graphics adapters, including EGA/TGA/MCGA/VGA, while some featured 256-color VGA graphics. Mid/Late-1990s the internet became more popular, with online information services like America Online disappearing or transforming into internet service providers. Hard disk storage capacities, modem speeds, and memory sizes increased rapidly, while 5.25" and low-capacity (720KB) 3.5" disks largely became things of the past. In 2000 some of the current information technology trends which began in recent years include increased use of wireless technology, higher-speed internet connections, and video game systems with computer-like hardware technology and capabilities. Wireless technology is being used for an increasing number of accessories, local area networks, and internet access systems. Other current trends in technology include the increasing use of LCD monitors, high-capacity portable information storage devices, open source free software, and USB computer accessories. Internet censorship is control or suppression of the publishing or accessing of information on the Internet. The legal issues are similar to offline censorship. One difference is that national borders are more permeable online: residents of a country that bans certain information can find it on websites hosted outside the country.

A government can try to prevent its citizens from viewing these even if it has no control over the websites themselves. Pseudonymity and data havens (such as Freenet) allow unconditional free speech, as the technology guarantees that material cannot be removed and the author of any information is impossible to link to a physical identity or organization. In November 2007, "Father of the Internet" Vint Cerf stated that he sees Government-led control of the Internet failing due to private ownership. India is in ONI's nominal category and is not on RSF's internet enemy list. As of July 2006[update] the Indian government has directed ISPs to block seventeen websites, including some hosted on the Geocities, Blogspot and Typepad domains. Initial implementation difficulties led to these domains being blocked entirely. Access to sites on these domains other than the specifically banned ones was restored by most ISPs after about a week. The first documented incident of Internet censorship in India was the Yahoo! Groups ban of 23 September 2003. Kynhun, a Yahoo! group linked to the outlawed "Hynniewtrep National Liberation Council", a minor separatist group, was ordered banned by the Department of Telecommunications. Difficulties in implementing the ban by the ISP's ultimately led to all Yahoo! groups being banned for a period of about two weeks.

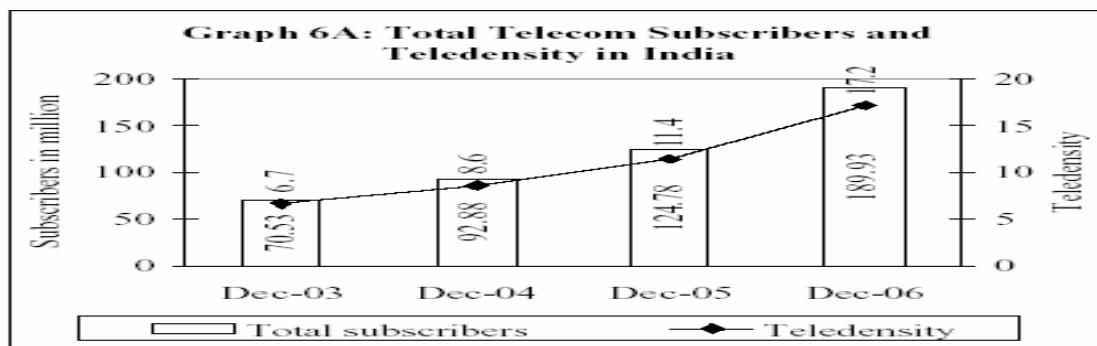
Progress of India's telecom sector has made rapid progress since the announcement of the National Telecom Policy – 1999(NTP-1999). Besides, as a result of the various measures and initiatives taken by the government, India has now emerged as one of the leading telecom nations. Since 2000, the Indian telecom sector has been a key contributor to the economy's impressive performance registering sustained high growth rates. The mobile sector has grown from around 10 million subscribers in 2002 to around 150 million in 2006 (Table 6.1).

Table 6.1: Growth of the Telecom Sector in India

| Year | Mobile | Fixed | Total | Additions (During Calendar Year) |
|---------------|--------|-------|--------|-------------------------------------|
| December 2003 | 28.44 | 42.09 | 70.53 | - |
| December 2004 | 48.01 | 44.87 | 92.88 | 22.35 |
| December 2005 | 75.94 | 48.84 | 124.78 | 31.90 |
| December 2006 | 149.50 | 40.43 | 189.93 | 65.15 |

Source: Trai

(in millions)



As indicated in Table 5.1 the total additions of subscribers during 2006 is almost twice the additions in the year 2005 and about thrice that of 2004. With the country's gross subscriber base touching almost 150 million, India has joined the world's 100- million mobile club in May 2006. During the year India surpassed the target of 100 million GSM mobile subscribers thus becoming the fifth country to achieve this benchmark after China, USA, Japan and Russia (Table 6.2).

**Table 6.2: 100 Million Mobile Club Countries
(in million)**

| No. | Country | Subscribers |
|-----|---------|---------------------|
| 1 | China | 408 (March 2006) |
| 2 | USA | 170 (January 2006) |
| 3 | Japan | 141 (January 2006) |
| 4 | Russia | 130 (February 2006) |
| 5 | India | 101 (May 2006) |

Source: TRAI

The telecom subscriber base in the year 2006 has reached a new milestone as more than 65 million telephony subscribers have been added during January–December 2006 registering an exponential growth of 50 per cent (Table 6.3).

**Table 6.3: Growth of Fixed and Mobile Phones
(in million)**

| Category | 2005 | | | 2006 | | | | | |
|----------|---------|----------|-------------------|--------|--------|----------|----------|-----------------------|----------------------|
| | March | December | Additions | March | March* | November | December | Additions December | Additions Apr-Dec |
| | | | during Apr-Dec | | | | | | Apr-Dec |
| Mobile | 52.22\$ | 75.94\$ | 23.72 | 90.14 | 98.78 | 143.02 | 149.50 | 6.48 | 50.72 |
| Fixed | 46.19 | 48.84 | 2.65 | 50.18 | 41.54 | 40.51 | 40.43 | -0.08 | 4.11 |
| Total | 98.41 | 124.78 | 26.37 | 140.32 | 140.32 | 183.53 | 189.93 | 6.40 | 49.61 |

\$ Excluding WLL(F) subscribers.

* The WLL(F) subscribers are included in mobile subscribers with effect from March 2006, as per New Policy.

Source: TRAI (www.trai.gov.in)

At the end of December 2006 the total broadband connections in the country have reached 2.10 million as against 0.90 million in December 2005 (Table 6.4). The additions during the first nine months of the current financial year was 0.75 million as compared to 0.72 million during the corresponding period in the previous financial year. The total increase in broadband subscribers from January to December 2006 has been 1.20 million as compared to addition of 0.85 million during 2005.

**Table 6.4: Broadband Connections Growth in 2006
(in million)**

| Category | 2005 | | | 2006 | | | | | |
|--------------------------|-------|----------|-------------------|-------|----------|----------|-----------------------|----------------------|--|
| | March | December | Additions | March | November | December | Additions December | Additions Apr-Dec | |
| | | | during Apr-Dec | | | | | Apr-Dec | |
| Broadband Connections | 0.18 | 0.90 | 0.72 | 1.35 | 2.00 | 2.10 | 0.10 | 0.75 | |

Source: TRAI (www.trai.gov.in)

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