Role of Internet in the Evolution of Indian IT Sector

Ramandeep Kaur, Sawtantar Singh Khurmi
CMJ University, Shillong, Meghalaya, India

Abstract
The Internet has revolutionized the computer and communications world like nothing before. The Internet is at once a worldwide broadcasting capability, a mechanism for information dissemination, and a medium for collaboration and interaction between individuals and their computers without regard for geographic location.

Keywords
Computer, Communication, Internet, IT Sector

I. Introduction
ICT forces companies to find new ways to expand the markets in which they compete, to attract and retain customers by tailoring products and services to their needs, and to restructure their business strategy to gain competitive advantage [3].

II. History of Internet
Beginning with the early research in packet switching, the government, industry and academia have been partners in evolving and deploying this exciting new technology [5]. In 1957 the USSR launched sputnik, the first artificial earth satellite. In response, the US formed the Advanced Research Projects Agency (ARPA) within department of defence (DoD) to establish US lead in science and technology applicable to the military. The cold war with his atomic menace leads the military to new lead in science and technology applicable to the military. The electronic communication was one of the electronic communication was one of the important technologies. But there was one big problem with this kind of communication, if one communication-point went down, the whole communication stops. The design of ARPANET began [2]. The domain name ARPA is a top-level domain (TLD) in the Domain Name System of the Internet. It is used exclusively for technical infrastructure purposes. While the name originally was the acronym for the Advanced Research Projects Agency (ARPA), it now stands for Address and Routing Parameter Area. The deployment of the ARPANET set in motion a train of developments that led to the Internet as we know it today. The ARPANET was the first global packet-switching based network, and allowed remote network access to varied applications from multiple users among different computer platforms. It also applied the concept of protocol layering to communications. This development was the key to allowing a diverse set of users to operate over the telephone network of the time, which was optimized for voice and not suited to data traffic.

With the introduction of a highly-adaptive and robust technology for network access, the ARPANET formed the foundation of today’s Internet. The physical network was constructed in 1969 linking 4 nodes: University of California at Los Angeles, SRI (in Stanford), University of California at Santa Barbara, and University of Utah. The network was wired together via 50kbps circuits. First IMP’s based on computers of types Honeywell DDP-516 and forts. IMP’s are the predecessors of routers and serve for connection between different computers. First hosts where computers from IBM, DEC, SDS and all running different operation systems.

III. Internet Economy in IT Sector
The Internet has established its role as a powerful economic force multiplier with a new study projecting that its contribution to India’s GDP will explode to $100 billion (Rs. 5 lakh crore) by 2015 from $30 billion (Rs. 1.5 lakh crore) at present. The study on the “Impact of Internet on the Indian Economy” by McKinsey, which is still to be released, could well become a new anchor for the government’s programmes to enhance digital citizenship. Revealing the highlights of the study, in the presence of Telecom Minister Kapil Sibal at a curtain raiser held to announce a two-day multistakeholder conference on Internet governance to be held at FICCI here on October 4-5, McKinsey said the contribution of the Internet to global GDP is roughly three per cent or $1.7 trillion and its performance in India will eventually mirror this trend [7].

The Internet Economy in the G-20’ says that the Internet is today the eighth largest sector in India — larger than mining and utilities. It is driven especially by exports of IT services: net exports make up 59 per cent of the Indian Internet economy, while consumption is only 20 per cent [8].

Fig. 1: The Fathers: Jon Postel, Steve Crocker And Vinton Cerf working for UCLA (university of California at los angeles) and developed the packet switching principle of ARPANET.
IV. Internet Intermediaries

Internet intermediaries bring together or facilitate transactions between third parties on the Internet. They give access to, host, transmit and index content, products and services originated by third parties on the Internet or provide Internet-based services to third parties (Source: OECD) [9]. Internet intermediaries are mainly from the business sector although there are an increasing number of social platforms. Current Internet intermediaries identified within the scope of this report include:

- Internet access and service providers (ISPs)
- Data processing and web hosting providers, including domain name registrars
- Internet search engines and portals
- E-commerce intermediaries, where these platforms do not take title to the goods being sold
- Internet payment systems, and
- Participative networking platforms, which include Internet publishing and broadcasting platforms that do not themselves create or own the content being published or broadcast.

V. Internet Based Projects

A case in point was net-enabled software called “Gram Haat” which stands for village market. The village market allowed people to buy and sell their commodities online through internet kiosks set up in the rural areas. In the field of telecommunications also, some waves were created in the rural areas to empower people. One such event was the “Ujjas innovation” whereby there was an initiative for empowering women by bringing out their own newsletter called “Ujjas”, which later went on air in the All India Radio Bhuj station. This was a medium for women to express their strong views against infanticide, dowry, and misbehavior by men.

“Gyandoot” was another internet based project wherein internet was administered through several kiosks across the villages in a state. The project extended to including initiatives like connecting the health centers in the villages with the district hospitals for better availability of healthcare services to the masses. The government also introduced software like “Jal-Chitra” for harnessing water resources in rural India [9].

VI. Conclusion

Internet can be seen as a powerful instrument in Indian IT sector. The incredible growth of the internet is changing the way corporations conduct business with consumers who are increasingly expecting higher services becoming time saved and waiting more convenience.

References

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