WiFi: A New Tool of Internet Technology

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ABSTRACT

Wi-Fi is a wireless networking technology that uses radio waves to provide high-speed internet and network connectivity. The paper focuses on the wireless networking technology that allows devices such as computers as laptops and desktops, mobile devices and smart phones. Wi-Fi is a wireless technology used to connect computers, tablets, smartphones and other devices to the internet. It has engage in recreation and opening role in delivering innovation devices, provided that all-encompassing connectivity to connect a wide variety of things to everywhere.

Key words: Wi-Fi, Computer, information, technology, internet, wireless and digital devices.

INTRODUCTION

Life is about a mix of good and evil. So is the Internet. For all the good it does us, cyberspace has its dark sides too. Unlike conventional communities though, there are no policemen patrolling the information superhighway, leaving it open to everything from Trojan horses and viruses to cyber stalking, trademark counterfeiting and cyber terrorism. Wi-Fi is a wireless networking technology that allows devices such as computers, smartphones, tablets, and other compatible devices to connect to the internet and communicate with one another without using physical cables. A Wi-Fi hotspot refers to a physical location or area that provides internet access over a wireless local area network (WLAN) using Wi-Fi technology. It enables nearby Wi-Fi-enabled devices like laptops, smartphones and tablets to connect to the internet by connecting to the hotspot's wireless network.

Computer has brought about revolutionary transformations of knowledge, the way it is being acquired and the means by which it is being inculcated. It all began with World Wide Web which acts as a networking system connected to the server and which helps provide ready-made and fast portal of information. Internet is its practical means for providing information and messages. "Wi-Fi is a family of wireless network protocols based on the IEEE 802.11 family of standards, which are commonly used for local area networking of devices and Internet access, allowing nearby digital devices to exchange data by radio waves. These are the most widely used computer networks, used globally in home and small office networks to link devices and to provide Internet access with wireless routers and wireless access points in public places such as coffee shops, hotels, libraries, and airports" (Garber, Megan 2014)

Started as an important source of information storage machinery, computer has the wider usability in defense institutions and for its various purposes, but slowly it gained access to other domains of human activities. However, the rapid growth of internet gave rise to the establishment of Cyber Cafes all over the world. "According to Phil Belanger, a founding member of the Wi-Fi Alliance, the term Wi-Fi was chosen from a list of ten names that Interbrand proposed" (Doctorow, Cory 2005).

Internet is the speedy means of communication whereby information can be made available easily, messages can be exchanged and wide and varied spectrum of valuable information can be gathered in a very short span of time. In fact, Internet has become the prime source of information encompassing almost all subjects, entities, nations, establishments, field of inquiries, institutions, industries, domain, persons and places.

In this hi-tech era, Internet has acquired an urgent necessity for people of all walks of life as more and more Cyber Cafes gave way to young and old reaching out for easy access for vital information. As a user friendly means, Internet gained tremendous response from the educated professionals, students and business tycoons. Now it has become possible for an individual to send message to anyone living in any part of the world in jiffy and he can get back the reply within minutes. While sitting in his bed room, a person can have all the incidents, news reports, messages. Internet is useful for all; for academicians, researchers, professionals and students as study materials, vital statistics, and readymade information are easily accessible. Students could study, make notes, and fill up the forms which are available on-line or download them, go through the examination results which are placed on line before they published.

Academicians and researchers need not visit libraries as Internet has become a vast ocean of library on any subject, topic and filed of studies. Although some of the websites are payee most of them are accessible for making research papers done in a very short span of time. "In the early 2000s, many cities around the world announced plans to construct citywide Wi-Fi networks. There are many successful examples; in 2004, Mysore (Mysuru) became India's first Wi-Fi-enabled city. A company called WiFiyNet has set up hotspots in Mysore, covering the whole city and a few nearby villages" (Verma, Veruna 2006)

For IT professionals, Internet has become all the more relevant as the latest technology is available on line except for new patents. Sending and receiving mails is a part of one`s life. And from scientists to the layman, information on all genres of life can be accessed through Internet. Railway information like schedule, ticket availability and departure time, to the information on agriculture, economy, including the budget details of every year are displayed on-line. "The main issue with wireless network security is its simplified access to the network compared to traditional wired networks such as Ethernet. With wired networking, one must either gain access to a building (physically connecting into the internal network), or break through an external firewall" (Jensen, Joe 2007)

WiFi stands for wireless fidelity. It is a new technology that helps the mobile Internet users take the advantage of Wireless Technology in a building, office or home. The user can connect his laptop PC to the Net through this technology. He has to insert a special card in this PC. This card can receive signals from a transmission tower that is installed in the building in which he arrives. This building could be an office, airport, residential complex, shopping mall, etc. The transmission tower would send Internet signals to the PC through this special card. The user can connect the PC through to the Net and exchange E-mails, V-mails and data. He can also surf through various websites of the Net. Finally, he can also download data from such websites. Hence, WiFi is a wireless connection that makes a PC Internet enabled. It is different from bluetooth, which is another wireless technology. "Wi-Fi is a trademark of the Wi-Fi Alliance, which restricts the use of the term 'Wi-Fi Certified' to products that successfully complete interoperability certification testing" (Beal, Vangie 2012)

WiFi has arrived in West with full force. It has also arrived in India though only a few installations of this device cannot be deemed the harbinger of its arrival in the entire country. The airport terminal of Bangalore has WiFi facility. The primary advantage of WiFi is that Internet users can keep world. As on date, it is costly technique. However, its prices would fall soon, aver IT connoisseurs.

The user has to procure the special WiFi card to gain access to the Net when he is mobile. Frequent travellers would find it very useful. The Indians going abroad would also be benefited by WiFi. However, it may remain out of the reach of students and ordinary Net surfers at least for the time being. In a large building, several Net users can access the Net through a single transmission tower. Hence the need for complex circuits and long wires would be eliminated, if we adopt WiFi in our present computer networks. Net cafes and large buildings, where Net surfing is a routine task, can have WiFi with immediate effect. "To access Wi-Fi, one must merely be within the range of the Wi-Fi network. Most business networks protect sensitive data and systems by attempting to disallow external access. Enabling wireless connectivity reduces security if the network uses inadequate or no" (Higgs, Larry 2013)

There are many disadvantages of this new technology. Firstly, its tools and gadgets are costly. It may not become popular among the youth due to the high price tag attached to it. Secondly, the owner of the building also has to spend a lot on the WiFi infrastructure. If the number of Internet users in his building is not very large, the owner of the building may find this installation exercise to be wastage of time. Thirdly, unauthorized users can enter into any WiFi-enabled building and access the Net. In such cases, the real owner of the WiFi apparatus would lose revenues. Fourthly, the user of WiFi services must carry on Internet-enabled PC along with him at all times to avail this service. He can use the Net by spending time in any Net cafe. However, if he wants to be on his own, he needs a PC, preferably a laptop. Carrying a laptop could prove to be a nuisance for those travellers who prefer to travel light.

Every time a new technology that arrives at the global scenario, is viewed with awe. Later, it is accepted. What is more, its new uses are also discovered by intelligent users around the world. In the case of WiFi, we expect similar development to take place.

Now-a-days, laptops are not very costly vis-a-vis their desktop cousins. A person of average salary can afford to have it. A natural corollary of this fact is that they would be able to use WiFi. With the passage of time, the cost of the gadgets of WiFi is likely to come down. Hence, like laptops, WiFi too would be affordable. WiFi can be used in desktop systems as well. Hence, persons working in a large building can use a single Internet connection to access the information superhighway. Thus the ideal use of WiFi in desktop is not a distant reality in India.

People should welcome this new technology which has yet to make deep inroads into the industries, Net cafes and business houses of our country. Its future is bright because it holds tremendous potential to explore the information superhighway due to its being easy to use.

CONCLUSION

With a strategic policy push across these dimensions, Wi-Fi technology can play a transformational role in furthering the Digital India vision and bridging the digital divide. For writers and authors, Internet is a must particularly for patent document writers who can access all the inventions that have been established. Internet is user-friendly, less expensive and speedy in transferring messages, information and relevant data. In this fast paced world, Internet has become the very part and parcel of human activities. It would not be wrong to say that it has become the lifeline of most of the people.

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