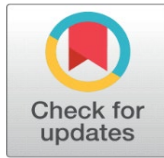
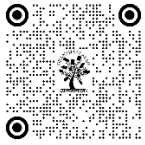


IMPACT OF INFORMATION TECHNOLOGY (IT) ON SOCIETY

Krishne Gowda B S¹

¹ Associate Professor, Department of Commerce, Govt. College for Women, Chintamani, Karnataka-563125



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1. INTRODUCTION

MEANING AND INTRODUCTION

Information technology (IT), as defined by the Information Technology Association of America (ITAA), is "the study, design, development, implementation, support or management of computer-based information systems, particularly software applications and computer hardware." IT deals with the use of electronic computers and computer software to convert, **store, protect, process, transmit, and securely retrieve information**.

Today, the term information technology has ballooned to encompass many aspects of computing and technology, and the term has become very recognizable. The information technology umbrella can be quite large, covering many fields. IT professionals perform a variety of duties that range from installing applications to designing complex computer networks and information databases. A few of the duties that IT professionals perform may include data management, networking, engineering computer hardware, database and software design, as well as the management and administration of entire systems.

When computer and communications technologies are combined, the result is information technology, or "infotech". Information Technology (IT) is a general term that describes any technology that helps to produce, manipulate, store, communicate, and/or disseminate information. Presumably, when speaking of Information Technology (IT) as a whole, it is noted that the use of computers and information are associated.

ABSTRACT

Information technology (IT), as defined by the Information Technology Association of America (ITAA), is "the study, design, development, implementation, support or management of computer-based information systems, particularly software applications and computer hardware." IT deals with the use of electronic computers and computer software to convert, store, protect, process, transmit, and securely retrieve information. Information technology (IT) is playing a crucial role in contemporary society. It has transformed the whole world into a global village with a global economy, which is increasingly dependent on the creative management and distribution of information. Globalization of world economies has greatly enhanced the values of information to business organizations and has offered new business opportunities. This paper intended to highlight the Impact of Information Technology (IT) on Society. This paper concludes that the Government of India has been working gradually and successfully towards improving the IT policy climate in the country.

Keywords: Information technology; society; Components; Impact.

The term Information Technology (IT) was coined by Jim Domsic of Michigan in November 1981. Domsic created the term to modernize the outdated phrase "data processing". Domsic at the time worked as a computer manager for an automotive related industry.

In recent years ABET and the ACM have collaborated to form accreditation and curriculum standards for degrees in Information Technology as a distinct field of study separate from both Computer Science and Information Systems. SIGITE is the ACM working group for defining these standards.

2. OBJECTIVES OF THE STUDY

The following are the objectives of the study:-

1. To know the concept of information technology
2. To identify the correlation between information technology and society
3. To study the impact of information technology on societal development

Methodology

This paper is purely based on the secondary data and theoretical and descriptive in nature. The data has been collected from various books, journals and magazines. It includes society and information technology, components of information technology and its impact on society.

Information technology (IT) and society

Information technology (IT) is playing a crucial role in contemporary society. It has transformed the whole world into a global village with a global economy, which is increasingly dependant on the creative management and distribution of information. Globalization of world economies has greatly enhanced the values of information to business organizations and has offered new business opportunities. Today, IT provides the communication and analytical power that organizations need for conducting trade and managing business at global level with much ease. To coordinate their worldwide network of suppliers, distributors and consumers, organizations have developed global information systems that can track orders, deliveries, and payments round the clock. This has been possible because of the development of IT in its present form. In the broadest sense, information technology refers to both the hardware and software that are used to store, retrieve, and manipulate information. At the lowest level you have the servers each with an operating system. Installed on these servers are things like database and web serving software. The servers are connected to each other and to users via a network infrastructure. And the users accessing these servers have their own hardware, operating systems, and software tools.

Emergence of an Information Society

The information society has passed through four transformational stages of development, the most radical stage starting at the tail end of the twentieth century. This stage has brought a never-ending revolution, particularly with the introduction of information and communication technologies.

During this period, there have been unprecedented developments, profoundly affecting the social structure – the decline of manufacturing sector as compared to the prospering information-rich service sector is one example of such developments. India is moving fast towards becoming an information society as the Government of India is paying due attention to the use of information technology (IT).

The Prime Minister of India constituted a National Task Force on IT and Software Development in May 1998 with the purpose of formulating a long-term National IT Policy to convert India into an IT software superpower. These steps are helping India to shift from an "economy of goods" to a "knowledge economy" or "knowledge driven economy". The beginning of the knowledge society has been made through creation of parks and corridors, and the Prime Minister has given a mission of converting India into a "knowledge society" by the year 2008. Today, India is one of the largest exporters of knowledge workers.

Components of Information Technology

1. Computer Hardware Technologies: These technologies include microcomputers, midsize servers and large mainframe systems, and the input, output and storage devices that support them.

2. Computer Software Technologies: These technologies include operating system software, web browsers, software productivity suits and software for business applications.

3. Telecommunication and Network Technologies: These technologies include telecommunications media, processors and software needed to provide wire-based and wireless access and support for Internet and other networks.

4. Data Resource Management Technologies: These technologies include database management system software for the development, access and maintenance of the databases of an organization.

Impact of Information Technology on Societal Development

A society can also refer specifically to any group of people, other animals and/or plants and the interactions within that group. This can be anything from a small neighborhood to the entire global community. Religion, ethnicity, interests, political opinions or other relating factors may help form a group of people.

Society can be defined as "a community, nation, or broad grouping of people having common traditions, institutions, and collective activities and interests." ¹⁴ Technological developments which have occurred in information technology have influenced a "broad grouping of people" in their "common traditions, institutions and/or collective activities". This broad grouping of people primarily occurs in the industrialized world of where "information technology" is commonly available.

We shall use the common traditions, institutions and collective activities and interests as the basis for our examination of the impact information technology has had on society. We shall also integrate this examination with the impact of how information technology has changed the "way we work". This integration will occur in two areas of the analysis of society, first the institutions and second the collective activities of the society.

1 Common Traditions: In the context of this report it is helpful to highlight a difference between "traditions" and "activities/interests". Tradition can be defined as "An inherited, established, or customary pattern of thought, action, or behaviour (as a religious practice or a social custom), Cultural continuity in social attitudes, customs, and institutions." The influence of information technology on religious practices has mainly been to the effect of making information about them more accessible. The most relevant question though is whether the developments in information technologies have influenced the continuity of social attitudes, customs or institutions.

2 Cultural Continuity: Social attitudes have changed in that citizens of a society now expect the various elements of that society to be better informed than previously. They also expect to be able to access more information about a specific product, service or organization so that they can make informed decisions with regard to their interactions with that entity.

3 Institutions: The word institutions can incorporate a wide variety of organizations. For the purposes of this report the institutions will be: Governments, Commercial businesses, News & media organizations, Educational organizations. The focus is on how information technology development has improved the processes by which these institutions accomplish their tasks or goals.

3.1 Governments: The government of a nation is comprised of many varied institutions. However developments in information technology have helped governments to improve their "service" to their citizens. Information technology has also had a major impact on the defense capabilities of governments. The governments data protection act Web Site gives the following eight rules regarding personal information:

1. It must be fairly and lawfully processed;
2. Processed for limited purposes;
3. Adequate, relevant and not excessive;
4. Accurate;
5. Not kept longer than necessary;
6. Processed in accordance with the data subject's rights;
7. Secure;
8. Not transferred to countries without adequate protection.

3.2 Commercial Businesses: The most important role of information technology in a commercial business, however, is to provide a commercial advantage. Advances such as computer-aided design, relational database technologies,

spreadsheets and word processing software provide a commercial benefit to the business, as does automation of manufacturing processes. Advances in information technology over the last thirty years have led to the television, mobiles, etc., for example, being more widely used today than thirty years ago (e.g. the introduction of transistor-based televisions reduced costs while increasing reliability).

3.3 News & Media Organizations: Due to the nature of news and media organizations, information technologies have particular relevance to them. As noted earlier, "Information technology is the technology used to store, manipulate, distribute or create information". News and media organizations are intimately acquainted with each of these elements of information technology. This report focuses on the distribution and creation of information.

3.4 Educational Organizations: The developments that have occurred in information technology have had many influences on educational establishments. The distribution of information is not the only concern of educational establishments. For example, one of the aims of universities is to create information. This creation is often done by research. Information technologies have enabled researchers to access a wider source of information than previously available through such technologies as the Internet.

3.5 Collective Activities and Interests: One of the aims of the paper is to analyze the influence of information technology on the collective activities and interests of a broad range of people. The phrase "collective activities and institutions" has a wide scope which can be divided into two main areas: Work processes, Social.

3. IMPACT OF INFORMATION TECHNOLOGY AND ELECTRONIC GOVERNANCE

E-governance is the effective way of governance utilizing IT to enhance efficiency of government offices. The Government of India is devising new policies to envisage a SMART – simple, moral, accountable, responsible, and transparent governance to bring nationwide reforms. The customs department plans to use electronic data interface (EDI) to handle all transactions relating to custom duties more efficiently, for which initiatives have been taken by National Informatics Center (NIC). Other areas of computerization include railway and air reservations, allotment of permanent account numbers (PAN), processing of passports, results of examinations, vigilance information, etc. The income tax department has introduced an online tax accounting for collecting the income tax by RBI and 31 commercial banks throughout the country from 1 June 2004 on.

4.1 IT Policy and Emphasis on E-governance: E-governance attempts in the country started with a bang. The initial impetus came from the Ministry of IT, which produced a concept paper, emphasizing the method by which the state has to deliver its services in the information age. The paper envisages a SMART government and promises to establish the required institutional mechanisms to facilitate initiatives towards synergic utilization of IT to enhance effectiveness of governance. NASSCOM conducted a survey of ten leading states (Andhra Pradesh, Tamil Nadu, Karnataka, Maharashtra, Madhya Pradesh, Kerala, Uttar Pradesh, Rajasthan, Gujarat and West Bengal) and pointed out that all these states have an IT policy, expert group, e-governance cell, and some even have a separate IT department. Some of them have also included specific policy measures that not only aim to facilitate IT investments in the state but also focus on using IT for governance-related issues.

4.2 IT Budget and E-governance Funding: Initially, IT budgets of Indian states have been very low, however, during the last half decade, the budgetary support for IT projects has shot up. A NASSCOM survey of the ten states for 2002-2003 revealed a total allocation of about Rs. 3 billion. Kerala topped the list with an allocation of Rs. 964.2 million, followed by Andhra Pradesh and West Bengal with Rs. 548.3 million and 355.1, respectively, towards IT projects in the states.

4.3 Initiatives by States and Union Territories: Technology is playing an important role for the all-round development of the country. In 1988, the NIC set up NICNET, a satellite-based computer communication network connecting 439 cities and towns in India. Most of the states and union territories have taken initiatives in one way or the other.

4. CONCLUSION

Today, we are all in agreement that the world is becoming increasingly dependent upon technology as is evidenced by the big role it is playing. The Internet has become a major shareholder. All developing nations can derive tremendous advantages from this technology for updating the knowledge of its researchers and scientists. The Indian software and services industry has significantly helped to boost the Indian economy. Society expects to be able to store information more than was previously conceived. Society expects to be able to manipulate the information it has for its own benefit, to increase understanding and discover new relationships. Society expects to be able to distribute information quickly, efficiently and cheaply. The Government of India has been working gradually and successfully towards improving the IT policy climate in the country.

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None.

CONFLICT OF INTEREST

None.

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