

INFORMATION SYSTEMS: FROM MEANING TO ITS CHANGING DOMAIN AT A GLANCE

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ABSTRACT

Information Systems is a mechanism for complete information solution. Information Systems primary treated as a mechanism responsible for collection, selection, organization, processing and management of information. Though, Information Dissemination is also important task of a sophisticated Information Systems. Information Systems includes some concept like its analysis, design and development. Though, time to time modification is also important to keep information oxygen to every corner of the organization or institutions. Information Systems periphery is includes traditional information foundation job and modern corporate houses. This paper is talks about Information Systems including its nature, role, characteristics and two type of dimension. Paper also mention about education and academic aspects of Information Systems, briefly.

Keywords: Information Systems, Computing, Information, Information Cycling, Information Transfer Cycle, Information and its value, Computer Systems, Information Mechanism

INTRODUCTION

Information Systems is actually the procedure and mechanism or sophisticated systems fully responsible for the complete information solution [01,05]. The organizational and complete information mechanism is the main task of Information Systems. Building Information Systems needs several components or facet which includes technologies, content or information, and people [02, 06]. Information Systems is actually constituted with several component and systems. Information is treated as oxygen of each and every type of organization and institutions; whether it is profit making, non profit making, Governmental or Non Governmental and so on. Information Systems helps to collect and manage overall Information Infrastructure of an organization or institutions. Information Systems also promotes the inter and intra departmental communication of an organization and institutions. Information Systems depending upon nature may be classified several way [07, 08].

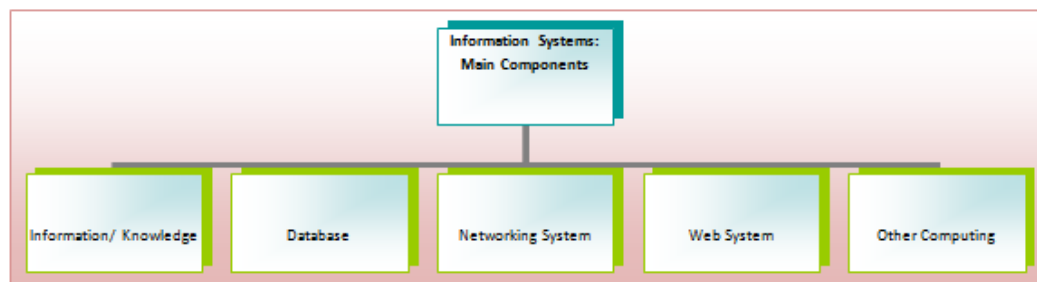


Fig 1. Describing the main components of Information Systems at a glance

OBJECTIVES

The main aim and objective of this paper is includes:-

- To learn basic about Information Systems and its characteristics;
- To find out main types and classification of Information Systems;
- To learn about Information Systems and its two foci;
- To find out traditional and emerging Information Systems;
- To learn the role of Information Systems in the academics and related facet.

Information Systems: Basics

Information Systems is actually a procedure or mechanism responsible for some of the activities which includes preparation of a basic infrastructure dealing with information and content. Information Systems is actually a inter connected systems of several unit facet Information Systems is actually deals with technologies which includes Database Technologies, Networking Technologies, Communication Technology, Web Technology, Multimedia Technology and so on[09, 10]. Content and information are another facet of Information Systems designing. Information Systems is responsible in information supply chain management of an organization and institution. Documentation, Information Science, Management Information Systems [MIS] are mainly responsible to build Information Systems [11].

Information Systems and Types

Information Systems, depending upon nature and way classified several way. Based on periphery it may be classified as International, National, State, Regional Level and so on.

Based on tools and weapon it may be classified as subject based or organizational. Though, apart from these, Information Systems may be established as mission or core objective or task[07,16, 17, 18].

Information Systems: Traditional and Emerging

Information Systems may be classified as Traditional and Computational. Traditional Information Systems is includes several tools and weapon such as general dissemination tools, indexing systems, abstracting, classification and cataloguing and other knowledge

organization based tools and techniques which includes database, information repository systems, networking and communication systems, multimedia systems and so on[08, 09].

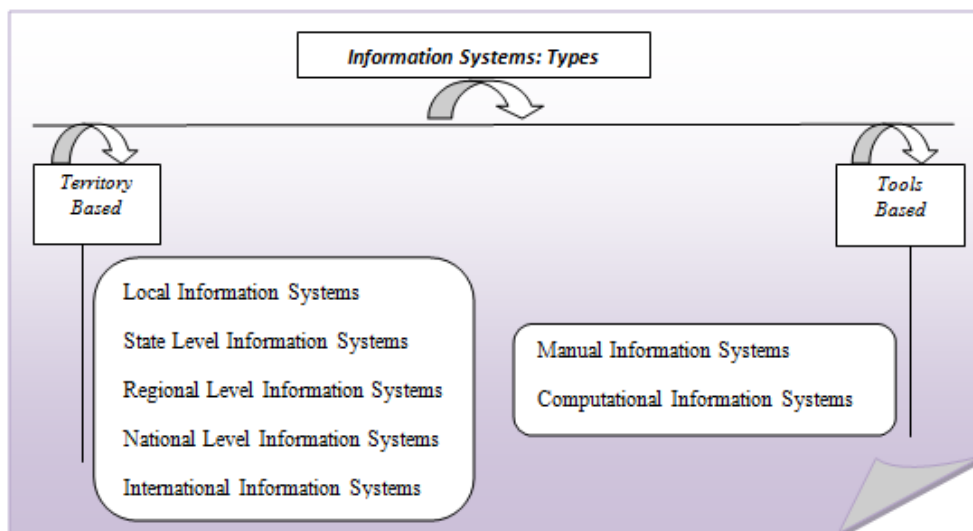


Fig 2. Depicted Types of Information Systems Based on Tools and periphery

Modern Information Systems and uses in the corporate houses and MNC's in most of the countries. Today Information Systems synonymous and reflects about computational Information Systems.

Information Systems: Changing applications and domain in organization

Information Systems, in the organization and institutions changing rapidly in several places we may see the utilization of Information Systems. The modern dimension of information systems are includes-

- Executive Information Systems;
- Decision Support Systems;
- Strategic Information Systems; and so on.
- Each and every domain of Information Systems is responsible for the creation of information infrastructure of the organization and institutions [10, 11].
- Information Systems during initial period only treated as an important mechanism for information collection, selection, organization, processing, management and dissemination. During that time it was mainly used in the information infrastructure building and management. Though over the time the traditional look of Information Systems totally changed and come to as new dimension.
- Executive Information Systems is used in several top level executive level of work. This is mainly helpful for the top level management for their information solution. It is helpful to the position like- Chief Executive Officer, Chief Finance Officer, Chief Operation Officer, Chief Accounts Officer, MD and others based on intelligent

systems, Executive Information Systems is providing oxygen to many organization and institutions.

- Decision supports Systems is another tools and systems which helps in Decision making to the organization and institutions. However for healthy Decision Support Systems building intelligent systems and Artificial Intelligence based weapon plays an important role [14, 33].
- Strategic Information Systems is also helps in better and sophisticated strategic formulation and building, quick and actual information delivery many ways responsible for the healthy strategy and policy making.

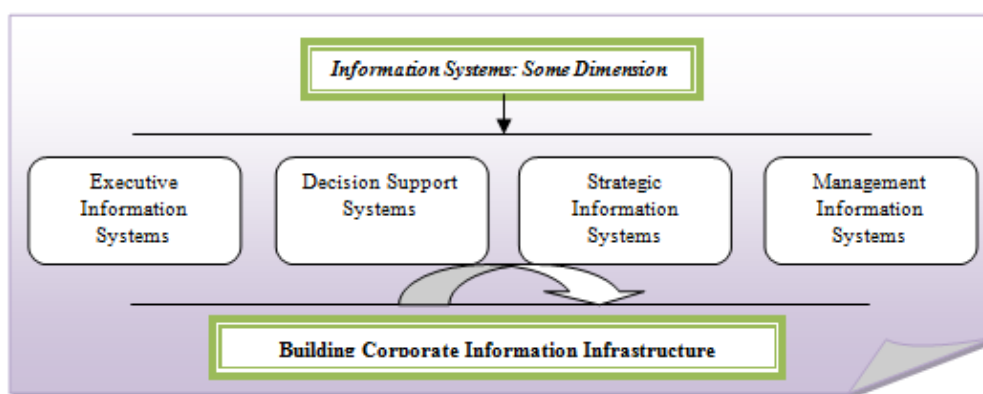


Fig 3. Depicted main types of Information Systems

- General Office Support Systems which includes official documentation and data management is also most important and fundamental job of Information Systems [15, 31, 33].
- As like Executive Information Systems, Decision Supports Systems are another important Information Systems is MIS or Management Information Systems which is mainly responsible for the information and intelligence delivery to the management or authorities. It is also helpful to the financial section of the organization for report generation and report building.
- Healthy Information Systems today depends on small tools and techniques traditionally Information Systems is depend on Decision Systems, Networking Systems, Multimedia Systems, Communication Systems, Web Technology and so on.

But today some more and new technologies are evolving around the world which includes [06, 08, 12]:-

- Intelligence Systems;
- Big Data Management;
- Cloud Computing;
- Green Computing;

- Enterprise Resource Planning;
- SAP;
- Informatics;
- Usability Engineering based Information Systems and so on.

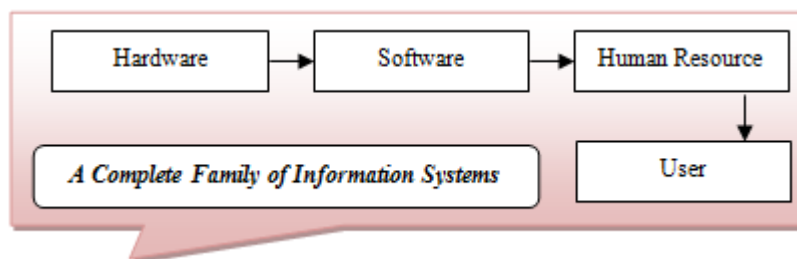


Fig 4. Depicted main components of Information Systems at a glance

Thus, Information Systems is not only used in the corporate but also in the community, society, academic systems.

Information Systems in Academics: Changing and Emerging Nomenclature

Information Systems has a wonderful role in the field of academics and education systems. Earlier and still in the Information Studies field, Information Systems is treated as a combination of some information providing centre or information centre. In fact, in some cases, Information Systems is treated as the overall mechanism, material and services of a library or similar foundation[30,32].

- In other words, we may find Information Systems in academics as a course or programme of study. Information Systems is mainly offered in the science or Applied Science faculty. And the common nomenclatures are BSc/MSc - Information Systems/Business Information Systems.

Though, recently some Universities start new nomenclature as BSc/MSc Management Information Systems which has Information Systems focused to the Management or Authority's solution. Another nomenclature is BSc/MSc – Computer Information Systems.

Thus due to emerging technological development and promotion, some possible Information Systems may be offered as following streams as depicted in fig. 5

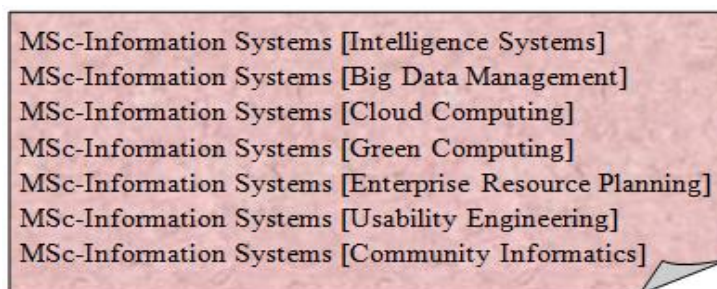


Fig 5. Future and possible Information System specialization at a glance

FINDINGS

- Information systems is practicing field and academic domain incorporated with Commuting, Management, Information and Business related knowledge gradients.
- Information Systems in Information Studies, LIS purely treated as combination of some Information Systems.
- Courses on Information Systems is minimum than IT or Computing around the world and even India only 3-4 institutes offer such course/ discipline.

SUGGESTION

- Information Systems programme may be started in combination of computing, Information and Management Department;
- It is better to start some special Information Systems Programmes on ERP, SAP, Business Intelligence, Data Warehousing, Data Mining, Cloud Computing and so on;
- It is better to use Information Systems principles and tools all over and all most all the organizations and institutions and Governmental sector.

CONCLUSION

Information Systems is one of the important name in modern day's Information Foundations; includes information centre, documentation centre, data centre and so on, corporate houses, MNC's and so on [04, 06, 18, 19]. A better and healthy Information Systems may help information condition many ways. Thus, proper Information Systems development is very much essential for all most all type of organizations.

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