Glossary

Access Control Mechanism: A mechanism that limits the actions that can be performed by an authenticated person or group.

Accessibility: The extent to which the user can obtain data in an appropriate format and in time for effective use; to locate data stored in a computer system or in computer-related equipment for the purpose of reading, writing, or moving data or instructions to operate the data.

Accumulator: A special-purpose register in the central processing unit used to store the results of arithmetic operations temporarily.

Ad Management: Methodology and software that enable organizations to perform a variety of activities involved in Web advertising.

Advanced Planning And Scheduling (APS): Programs that use algorithms to identify optimal solutions to complex planning problems that are bound by constraints.

Alliance Strategy: Competitive strategy in which an organization works with business partners in partnerships, alliances, joint ventures, or virtual organization.

Alliances: Cooperative business arrangements between two or more businesses with complementary capabilities.

Analytic Style: A systematic style of perceiving information where one follows a structured, well-organized, and deductive approach in arriving at a decision.

API: Application programming interface

Application: The use of computer-based routines for specific purposes such as accounts receivable maintenance, inventory control, and new product selection. It could also be software or computer program that process data to provide output for such a purpose.

Application Controls: Controls designed to protect specific applications.

Application-Level Proxy: A firewall that permits requests for Web pages to move from the public Internet to the private network.

Application Generator: A program that produces application software based on information submitted by the user. A software procedure produced from a description of the functions wanted by users. A type of fourth-generation language.

Application Programmer: Develops software, usually in third- and/or fourth-generation languages, to generate reports, update records, and perform other functions involving data stored in the database.

Application Service Provider (APS): An agent or vendor who assembles the functions needed by enterprises and packages them with outsourced development, operations, maintenance, and other services; the provision of information system or computer application over the Internet that became widely practiced in the late 1990s.

Application Software: see Application

Architecture: The structure under which an information system's hardware, software, data, and communications capabilities are put together; how a current or proposed information system operates mechanically, described by summarizing its components, the way the components are linked, and the way the components operate together. Web services architectures differ in flexibility, expandability, security, and reliability.

Artificial Intelligence: Teaching computers to accomplish tasks in a manner that is considered "intelligent," characterized by learning and making decisions; filed of research related to the demonstration of intelligence by machines, including the ability to think, see, learn, understand, and use common sense.

ASPic: An industry consortium for application service provision.

Asynchronous Communication: The sending and receiving of messages in which there is a time delay between the sending and receiving.

Attributes Of Information: Characteristics of information that make the material useful to the receiver. It could be in terms of accuracy, timeliness, reliability, origin, and so forth.

Authorization: Approval to access particular files in a database or over the Web and make certain uses of the data.

Automated Clearing House (ACH): Electronic network that connects all U.S. financial institutions for the purpose of making fund transfers.

Automation: The use of machines to perform tasks that people would otherwise do.

Autonomy: A degree of discretion individuals or groups have in planning, regulating, and controlling their work.

Auxiliary Storage: Storage that supplements that main memory section of the central processing unit. Web services make use of auxiliary storage either online or off-line.

Availability Of Information: The extent to which the necessary information exists in an information system and can be accessed effectively by people who need it.

B2B Portals: An information portals for business to be contacted by other businesses.

Back End: The activities that support online order-taking which usually includes fulfillment, inventory management, purchasing from suppliers, payment processing, packaging, and delivery.

Backup: The storing of one or more copies of data, in case something goes wrong; standby, substitute, or alternate components in a computer processing system that can be used in case of failure or damage to the primary component. Regular and reliable backup system is essential to Web services to protect copies of data or programs in the event of hardware failure or other emergencies.

Bandwidth: The difference between the highest and lowest frequency that can be transmitted by a telecommunications network. This is increasingly being reinterpreted as the capacity of a channel in terms of bits per second.

Batch Processing: The processing of transaction in which transactions are gathered and stored for later execution.

Benchmarking: When running alternative systems, for the purpose of deciding among alternative application packages, a test application is used for simulating the anticipated volumes of input, output, and data manipulation.

Best Practice: The best methods for solving problems, often stored in the knowledge repository of an organization.

Bias: The creating of systematic inaccuracy in data due to characteristics of the process of creating, collecting, processing, or presenting the data.

Blog: A personal Web site that is open to the public.

Bottleneck: A processing slowdown that occurs in a Web services environment, usually because operations in certain activities or operations in the environment are lagging behind.

Bottom-Up Approach: An approach to system strategy which begins by identifying basic transaction and information processing needs. That is followed by the integration of those applications at each higher level in the organization to provide information for decision makers.

Bounded Rationality: This is a common practice of making decisions in a limited amount of time, based on limited information, and with limited ability to process that information.

Brick-And-Mortar Organizations: Old-economy organizations (corporations) that perform most of their business off-line, selling physical products by means of physical agents.

Bridge: The interconnections of two networks of the same type in a Web services environment. It accepts transmissions from one and directs them to appropriate locations on the other.

Broadband: A category of coaxial cable that carries multiple analogue signals simultaneously at different frequency ranges, suitable for voice, data, and video transmission.

Broadband Topology: This is a computer network topology in which every transmitted message or set of data goes to every node, although each node recognizes only messages addressed to it. The tradition examples are Ring and Star topologies.

Bug: A flaw found in a computer program that causes it to produce incorrect or inappropriate results.

Business-to-Business (B2B): E-commerce model in which all of the participants are businesses or other organizations.

Business-to-Consumer (B2C): E-commerce model in which businesses sell to individual shoppers.

Business-to-Employees (B2E): E-commerce model in which an organization delivers services, information, or products to its individual employees.

Business Architecture: Organizational plans, visions, objectives, and problems, and the information required to support them.

Business Case: A written document that is used by managers to justify funding for a specific investment and also to provide the bridge between the initial plan and its execution.

Business Continuity Plan: A comprehensive plan for how the business and information systems will operate in case a disaster strikes.

Business Environment: Looking at one organization, everything outside the organization that affects its success, including competitors, suppliers, customers, regulatory agencies, demographics, and social and economic conditions.

Business Model: A method of doing business by which an organization can generate revenue to sustain itself.

Business Plan: A written document that identifies an organization's goals and outlines how the organization intends to achieve the goals.

Business Process: A related group of steps or activities that use people, information, and other resources to create value for internal or external customers.

Business Process Outsourcing: The subcontracting of a business process management to contractors outside the organization.

Business Process Reengineering: The complete overhaul and redesign of a business process using information technology.

Business Professional: A person in a business or government organization who manages other people or performs professional work in fields such as engineering, sales, manufacturing, consulting, and accounting.

Business System Planning (BSP): An information systems planning method that uses a top-down approach to identify the data necessary to run an organization. In this system, data are classified and put into a matrix to show their relation to the processes that create and use data. That data flow information is used to produce an information architecture, data management recommendations, and priorities for applications development.

Business Value: Gauging how successfully a Web service application is being used or what a particular application of Web services has returned on its investment, or what a Web services application contributes to the organization's objectives.

Case Manager Approach: A decision support method based on the idea of finding past cases most similar to the current situation in which a decision must be made.

Centralization: The concept of locating decision-making authority, control, or resources at a limited number of locations in an organization. When applied to management, centralization is the location of decision-making authority at a relatively high level in the organization.

Certainty Factor: In an expert system, this is a number that describes the likelihood of a rule's conclusion given that its premises are true.

Champion: Within an information system environment, this refers to an individual who makes sure the system is recognized as important by others in the organization.

Change Agent: A person responsible for introducing change to an organization, such as a CIO implementing Web services into an organization. This person must prepare users for the change, introduce the changes to them, and reinforce the new system to return the organization to stability.

Channel: Data communications in Web services environment has a highway along which data travel from one location to another, such as telephone wire, coaxial cable, fiber optics, microwave transmission, satellites, and so forth.

Chargeback System: This is an accounting system that motivates efficient system usage by assigning to user organizations costs for information systems and related resources.

Chief Executive Officer (CEO): The head of the organization who usually takes full responsibility of making sure the various parts of the organization are held accountable by someone.

Chief Information Officer (CIO): This is the head of the information systems department, usually with special responsibility for making sure the information system plan supports the business plan and provides direction for the organization's system-related efforts.

Circuit Switching: A method of moving data in the wide-area network within a Web services environment. Such communication circuits are established before communications start, and the system has continual and exclusive use of the circuit until the end of transmission.

CIS: Corporate information services directorate

Click-and-Mortar Organization: An organization that conducts some e-commerce activities, but does its primary business in the physical world.

Clickstream Behavior: Customer movements on the Internet and what the customers are doing there.

Client-Server Architecture: An information system architecture consisting of client devices which send requests for service and server devices which perform the requested processing.

Closed System: Occasionally, there may exist an independent system within the Web services environment that is self-contained and does not interact with the environment.

Coaxial Cable: A single wire encased in insulating material and a protective metal casing. It provides much faster data transmission than twisted pair lines, free of noise and electrical interference, and can be used over long distances, such as in underground and under water cables.

Collaborative Commerce: The use of digital technologies that enable organizations to collaboratively plan, design, develop, manage, and research products, services, and innovative e-commerce applications.

Collision: The calculation of the same location for two different records while storing or retrieving data in a computer system.

Commodity Content: Information that is widely available and generally free to access on the Web.

Communication: A good communication in the Web service environment requires four essential elements: a source, a communication channel, a destination, and a message to be communicated.

Communication Network: The interconnection of multiple locations via any of the several channels available within a Web services environment.

Compatibility: The extent to which the characteristics and features of a particular technology fit with those of other technologies relevant to the situation.

Competitive Advantage: The advantage of one product or service over another in terms of cost, features, or other characteristics.

Competitive Forces Model: Model, devised by Michael Porter, which says that five major forces of competition determine industry structure and how economic value is divided among the industry players in the industry; analysis of these forces helps organization develop their competitive strategy.

Complexity: This determines how complicated a system is, and usually based on the number of differentiated components, the number of interacting components, and the nature of interactions between components.

Computer-Aided Software Engineering (CASE): CASE tools speed the system/software development process, automate tedious tasks, enforce development standards, and capture data that describe the system.

Computer Information Systems (CIS): see Information Systems.

Confidentiality: Keeping private or sensitive information from being disclosed to unauthorized individuals, entities, or processes.

Connectivity: Web services offer the ability of users to interact with elements of the system freely, to connect from the computer within the Web services environment, regardless of location, time, or component design.

Consistency: Having the relevant factor remain unchanged throughout while the units are being compared.

Consortia: E-marketplaces owned by a small group of large vendors, usually in a single industry.

Consultant: The consultant's role within the implementation of Web services in an organization is to work with users who need to develop a specific application or formulate a report from the system. That person may also provide initial training and help as needed for users developing their own applications.

Content: The text, images, sound, and video that make up a Web page.

Content Management: The process of adding, revising, and removing content from a Web site to keep content fresh, accurate, compelling, and credible.

Context Diagram: Data flow diagram verifying the scope of a system by showing the sources and destinations of data used and generated.

Contingency Theory: A theory calling for management strategy to be tailored to circumstances, especially the nature of the work and the workers, the sophistication and complexity of the tools and techniques, and the external environment of the work group and overall organization. As Web services become implemented, management strategy usually needs to change.

Control: The concept of ensuring that operations and activities are occurring in accordance with plans and guidelines.

Conversion: The process of adapting a new Web services application to fit in with an existing information system. This is usually the beginning of using a new operating system.

Cookie: A data file that is placed on a user's hard drive by a Web server, frequently without disclosure or the user's consent, which collects information about the user's activities at a site.

Copyright: An exclusive grant from the government that allows the owner to reproduce a work, in whole or in part, and to distribute, perform, or display it to the public in any form or manner, including the Internet.

Corporate Portal: A gateway for entering a corporate Web site, enabling communication, collaboration, and access to company information.

Cost-Benefit Analysis: This is a technique of assessing the effect of Web services in an organization by identifying the costs and benefits of the Web services applications. Analysis of costs and benefits are associated with the introduction of most new information systems into organization in the 21st century.

Cost: This is whatever the internal or external customer must give up to obtain, use, and maintain the product or services of an organization's process.

Cost Leadership Strategy: This is a strategy of competing on the basis of having a lower cost than one's competitors.

Critical Incident Logging: This is a technique of assessing the effect of Web services applications. This is done by recording noteworthy events during the usage and tracking events both before and after the system is in place.

Critical Mass: This is having enough users of an information system to be able to attain the desired benefits.

Critical Success Factor (CSF): This method of planning Web services implementation determines the information needs by identifying the factors that are essential to the organization's survival. It generates a database with the details about the organization's performance on a critical success factor to be analysed by management.

Consumer-to-Consumer (C2C): E-commerce model in which consumers sell directly to other consumers.

Customer-to-Business (C2B): E-commerce model in which individuals use the Internet to sell products or services to organizations, or individuals seek sellers to bid on products or services they need.

Customer-to-Customer (C2C): E-commerce model in which both the buyer and the seller are individuals and which involves activities such as auctions and classified ads.

Customer Relationship Management (CRM): The way in which an organization manages its relationship with its customers keeping the customers satisfied with the impression the organization continue to make.

Customization: The creation or modification of a product or service based on a specific customer's needs.

Data: Facts, ideas, or concepts that can be collected and represented electronically in digital form. Data could be captured, communicated, and processed electronically over the Web.

Data Architecture: This is the means by which data are managed to ensure reliability and access. Within Web services environment, the network architecture forms the infrastructure on which applications are based.

Data Definition: The data description language defines the specifications for the form data much take to be used in a database.

Data Description Language (DDL): The language used to describe or define all or part of a database for creation or processing.

Data Encryption Standard: The standard symmetric encryption algorithm supported the National Institute of Standards and Technology and used by U.S. government agencies until October 2, 2000.

Data Flow Diagram: A graphic or pictorial description of the movement of data in and out of a system and between processes and data stores. It provides a logical view of the system and the movement and transfiguration of data in the system.

Data Manipulation Language (DML): The language used to transfer data between the database and Web services applications.

Data Model: A sufficiently detailed description of the structure of data to help a user or programmer thinks about the data.

Data Modeling: The process of identifying the types of entities in a situation, relationships between those entities, and the relevant attributes of those entities.

Data Quality: A measure of the accuracy, objectivity, accessibility, relevance, timeliness, completeness, and other characteristics that describe useful data.

Data Redundancy: The simultaneous use and modification of two or more copies of the same data.

Data Warehouse: A single, server-based data repository that allows centralized analysis, security, and control over the data.

Database: A generalized integrated collection of data structured to model the natural relationships in the data. This also refers to a collection of files or a set of data that can be processed by several different computer programs.

Database Administrator (DBA): An individual or group whose assignment is to manage and protect the database with maximum benefit for all users.

Database Management System (DBMS): A software system that allows access to stored data by providing an interface between users or programs and the stored data.

Decentralization: The concept of locating decision-making authority, control, or resources at the level in an organization at which events are occurring.

Decision Support System (DSS): Certain types of information systems are intended to assist managers and users who must formulate decision alternatives for situations that are not well structured. This can be considered by some to be a problem-oriented information system.

Detailed Requirement Analysis: Process of creating a user-oriented description of exactly what a proposed information system will do.

Device Media Control Language (DMCL): This is a common language used by systems programmer to specify the physical storage of data in a database system, indicating space, overflow areas, and buffering to the specifics.

Differentiation: A descriptive term used to refer to product perceived throughout the industry as having unique features in comparison to competing items.

Differentiation Strategy: Competitive strategy in which an organization offers different products, services, or features than those offered by competitors.

Digital Certificate: The verification that the holder of a public or private key is who they claim to be.

Digital Divide: The gap within a country, or between countries, between those that have information technology, particularly access to the Internet, and those that do not.

Digital Economy: An economy that is based on digital technologies, including digital communication networks, computers, software, and other related information technologies.

Digital Signature: An identifying code that can be used to authenticate the identity of the sender of a document.

Digitizing: Translating text, images, or sound into a form that can be stored electronically which allows for easier modification as and when needed.

Disintermediation: The removal of intermediate steps or persons between the user and the information system. It usually occurs when information systems are designed to be simpler to use and end-users learn to do their own computing.

Disk Operating System (DOS): An operating system with modules stored on magnetic disk, commonly used on personal computers.

Distributed Organization: This is a type of file organization usually used when data are stored on direct address devices. The addresses for storage of records are calculated by applying a randomizing algorithm to a record.

Distributed Processing Network: A set of hardware modules used for stand-along PCs, laptops or mainframe systems that are located in different physical locations. Each module can carry out stand-alone processing but can also be interconnected to share data with other locations or with a central facility.

DoH: Department of Health

Download: Refers to copying a portion of a file or database from the central computer system to a desktop, laptop, or departmental computer of the user.

DSS Generator: An element of a decision support system that combines languages, user interfaces, reporting capabilities, graphics facilities and so on for use as needed in creating a decision support system.

DSS Tool: A limited DSS generator, specializing, for example, in generating graphics, but with the capability controlled by the DSS Generator.

Dual Recording: A type of backup system use dot protect against loss of data. The same data are recorded on two storage devices simultaneously and updates are made to both copies.

Dumping: A type of backup to protect against loss of data. The database is copied periodically, which could be daily or weekly, and a log is kept between those periods of all transactions processed against the database.

Dynamic Web Content: Content at a Web site that needs to be changed continually to keep it up to date.

Dysfunctional Behavior: Behaviour that interferes with the attainment of objectives. Resistance to a new system is dysfunctional behaviour, often best managed by developing a system that doesn't engender resistance.

E-Banking: Various banking activities conducted from home or the road using an Internet connection.

E-Book: A book in digital form that can be read on a computer screen or on a special device.

E-Business: A broader definition of e-commerce, which includes not just the buying and selling of goods and services, but also servicing customers, collaborating with business partners, and conducting electronic transactions within an organization.

E-Cash: The digital equivalent of paper currency and coins, which enables secure and anonymous purchase of low-priced items.

E-Commerce Application: An e-commerce program for a defined end-user activity such as e-procurement, e-auction, or ordering a product online.

E-Commerce Strategy: The formulation and execution of a vision on how a new or existing organization intends to do business electronically.

E-CRM: The use of Web browsers, the Internet, and other electronic tough points in customer relationship management.

E-Gate: An integration engine for medical database/software used at different healthcare institutions in Europe.

E-Government: An e-commerce model in which a government entity buys or provides goods, services, or information to businesses or individual citizens.

E-Learning: The online delivery of information for purposes of education, training, or knowledge management.

E-Newsletter: A collection of short, informative articles sent at regular intervals by e-mail to individuals who have an interest in the newsletter's topic.

Effectiveness: The ability of an individual or organization to do the things that need to be done.

Electronic Data Interchange (EDI): Exchanging business transaction data between organizations using electronic communications. Data are in specified formats understood by both organizations.

Electronic Mail: Electronic communications that eliminate the manual preparation, storage, retrieval, and manual distribution of information.

Electronic Medical Information System (EMIS): An information system in a medical organization used for access to healthcare information for monitoring healthcare records.

Electronic Transfer of Prescriptions (ETP): Providing a service for rapid and safe generation and transfer of prescriptions from primary care to the pharmacy of the patient's choice.

E-Markets (EM): The use of computers and telecommunications to create direct links between multiple buyers and sellers.

Encryption: The process of scrambling a message in such a way that it is difficult, expensive, or time-consuming for an unauthorized person to un-scramble it.

End-User Development: The development of information systems by end users rather than by information system professionals.

End User: The individual who actually uses an information system or output, often a manager or staff member rather than an IS professional.

Enterprise Modeling: This is a technique for summarizing an organization's current information system architecture and designing a new architecture.

Enterprise Resource Planning: An integrated process of planning and managing of all resources and their use in the entire enterprise, which includes contacts with business partners.

Enterprise Web: An open environment for managing and delivering Web applications, combining services from different vendors in a technology layer that spans rival platforms and business systems.

Entity: An item or area of interest about which data are stored; may be a person, place, thing, or event.

Entropy: Deterioration of a system due to alack of maintenance input.

Entry Barrier: A factor in an industry that makes entering the field so difficult or expensive that existing organizations have s significant advantage. Information systems, such as computer-based airline reservation systems, can be entry barriers.

Entry Deterrent: A tactical entry barrier; may be invoked by an incumbent firm to make a new firm reconsider the decision to enter a market.

Environment: In a systems context, the environment is anything that is not a part of the system itself. Knowledge about the environment is important because of the effect it can have on system and because interactions between the system and the environment are possible.

Ethics: The branch of philosophy that deals with what is considered to be right and wrong.

Event Log: A technique for assessing the impact of information systems by maintaining a list (that is a log) of significant events or occurrences related to the introduction and use of a system.

Evolvability: The capability of databases and/or systems to change over time to accommodate new demands placed on them by users. An objective of database management.

Exception Information: A comparison of actual performance against expectations.

Exception Report: A report produced only when certain events or circumstances are above or below prescribed standards or goals.

Executive Information System (EIS): Interactive system providing flexible access to information for monitoring operating results and business conditions.

Executive Support System (ESS): A computer-based information system designed to assist top-level executives in acquiring and using information

needed to run the organization. Should provide an overview of all operations, details on request, and information to help identify opportunities and warn of potential problems.

Expert System: A type of information system intended to replicate the decisions of a human expert. Such system relies on manipulation of data and use of heuristics and includes knowledge base and explanation facility.

Explanation Facility: This exists in an expert system and tells the user what line of reasoning was used to develop a decision. This helps the user to decide whether the reasoning applies to current circumstances. It could also be used to explain why the system is requesting certain information from the user.

Extensible Markup Language (XML): Standard used to improve compatibility between the disparate systems of business partners by defining the meaning of data in business documents.

External Intelligence: This is a type of information required by top-level managers that includes formal information, gossip, and opinions about activities in the environment of an organization, such as competitor and industry changes.

Externally Distributed Information: Information released by the organization (i.e. annual reports to stockholders or news of a major program in a press release) which are usually reviewed by the chief executive before release.

Extranet: A network that uses a virtual printer network to link intranets in different locations over the Internet.

Factory Situation: This is considered a situation in which current systems are essential for the smooth functioning of an organization that Web services applications being developed or implementation are not intended to change how the organization competes.

Feasibility Study: An examination of the workability of an information systems project proposal in terms of its technical, economic, and human

relations factors. Only a feasible project can be incorporated into a master plan for systems development by an organization.

Feedback: Data or information collected and returned to a system or process so performance can be evaluated against expected performance and goals.

Feedback Loop: A loop built into an information system to sense the effect of output on the external environment and return that information to the system as an input, where adjustments can be made to meet predetermined goals.

Field Dependence: A style of perceiving information in which the individual tends emphasize the overall picture.

Field Independence: A style of perceiving information in which the individual tends to pull pieces out of the whole for analysis.

Fifth-Generation Language: A category of computer languages that have emerged in the last decade of the 20th century. They use knowledge bases with rules and facts fed in that describe a problem and arrive at a solution using artificial intelligence to associate rules, facts, and conditions rather than receiving a sequence of instructions.

File: A collection of related records that are stored together sometimes referred to as data set. The records are organized or ordered on the basis of some common factor called a key. Records may be of fixed or varying length and can be stored on different devices and storage media.

File Management: These are mainly the functions of creation, insertion, deletion, or updating of stored files and records in files. These operations are preformed on files.

Firewall: A network node consisting of both hardware and software that isolates a private network from a public network.

Five Forces: These are forces that affect an organization's competitiveness (considered to be promoted by Michael Porter): industry competitors, bargaining power of both buyers and suppliers, substitute products and the threat of new entrants to the industry.

Formal Structure: An organizational structure established to create meaningful responsibility and authority relationships with departmental boundaries and definitions of relationships between line and staff groups usually central to it.

Fourth-Generation Language: A group of nonprocedural language in which the user specifies what is to be done rather than how it should be done.

Frame-Based System: An expert support system that stores knowledge in frames that permit the interrelation of knowledge and can better handle complex subjects than a rule-based system.

Frame: An HTML element that divides the browser window into two or more separate windows.

Front-End Tool: A CASE tool that automates the early activities in the systems development process, such as producing dataflow diagrams.

Functional-Area-Information System: An information system that serves one part of the organization.

Functional Specification: An overview of the business problem addressed by a proposed system, the way business processes will change, and the project's benefits, costs, and risks.

Goals: Purposes or objectives that guide the operation of any system. Operations of systems are performed and controlled in such a way as to assist in attaining specified goals.

GOSIP: Difference forms of electronic transmission protocols used for transporting data over the Internet.

GP: General practitioner providing medical services at a local community level.

Graphic User Interface (GUI): This is where icons are used for interface to represent objects, a pointing device to select operations, and graphical imagery to represent relationships.

Group Support Systems (GSS): A decision support system that also offers features to support group decision making, either in conference rooms or on a computer network.

Groupware: Software products that support collaboration, over networks, among groups of people who share a common task or goal.

Growth Strategy: Competitive strategy in which an organization attempts to increase market share, acquire more customers, or sell more products and services.

Hardware: The electrical and mechanical devices that make up a computer system usually contain the equipment that is part of a computer system.

Help Desk: Information centers where users can get answers to questions, help in troubleshooting, and information on software and techniques to more efficiently use their computer.

Heuristic Style: An intuitive style of perceiving information using trail and error and readily revising plans on the basis of new information.

HICSS: Hospital integrated clinical support systems used to provide clinical directorates and specialist services with improved access to patient and clinical data.

Hierarchical Data Model: This model of representation shows relationships among entities in the database in the style of a family tree. In this form, one piece of information may relate to another piece at any level, or to many pieces at levels below it.

HIT: A request for data from a Web page or file

HP-UX: Hewlett-Packard Unix operating environment software

HRI: Health Records Infrastructure service to access and move health record information as required.

Human Relations Era: The era in management theory history beginning in the late 1920s and early 1930s that increased the importance attached to determining job requirements and matching them with individuals' qualifications, and monitoring training needs and progress.

Hyperlink: The links that connect data notes in hypertext and enable users to automatically move from one Web page to another by clicking on a highlighted word or icon.

Hypertext: A type of data management program that is easy to use and has powerful retrieval capabilities which allows the user to create stacks of card containing data on one entity of interest and related graphics such as icons or forms to help users. These stacks can be interlinked to make a web.

Hypertext Markup Language (HTML): A programming language that uses hypertext to establish dynamic links to other documents stored in the same or other computers on the Internet or intranets.

ICRS: Integrated care record system for the UK National Health Service

Impact Evaluation: This determines how the implementation and use of a Web service application affects the organization. It can be carried out by the identification of changes directly attributable to the application.

Implementation: This the process of putting a new system into use that also includes completing training of all direct and indirect users of the system, and the actual conversion and start of regular use of the system.

Implementation Phase: A third phase of building or acquiring information system which is the main process of making a system operational in the organization.

Independent Software Vendors (ISV): Businesses that sell computer software and usually develop and implement information systems for organizations.

Industry Perspective: One of the perspectives top-level executives must keep in mind, watching the environment in which the organization operates. It includes immediate competitors, suppliers, government, and national and international competition to the Industry.

Informal Structure: Organizational relationships not shown on the organization chart but that are influential in functioning and that can be disrupted by a new information system.

Information: Data that have been processed into a meaningful form. Information adds to a representation and tells that recipient something that was not known before. What could be information for one person may not necessarily be information for anther person. Few importance characteristics of information are that it should be timely, accurate, and complete in order for information to reduce uncertainty.

Information and Communication Technologies (ICT): A category within which all computer telecommunications related activities in an organization may fall.

Information Center: An information systems facility within an organization aimed at facilitating end-user computing where train staff members assist users with both hardware and software systems.

Information Systems (IS): A system, usually computer-based, that processes data into a form that can be used by the recipient for decision-making purposes.

Information Technology: Hardware and software that perform data processing tasks, such as capturing, transmitting, storing, retrieving, manipulating, or displaying data.

Information Technology Vision (ITV): A view of information systems in an organization focused on processing efficiency and performance reliability, rather than on the information uses.

Information Utility Structure: An infrastructure to support systems use that can develop only in an organization that has considerable investment in and experience with information technology. The structure provides a centralized, standard direction and coordination among diverse parts of the system.

Informational Web Site: A Web site that does little more than provide information about the business and its products and services.

Infrastructure: The data architecture and network architecture that support an organization's application portfolios.

Institutional DSS: A decision support system provided as a complete application to be used on a continuing basis to address a general problem area, such as market analysis.

Integrated Services Digital Network (ISDN): A single type of network being used today by many in place of public telephone lines. It transmits all types of information, including data, voice, and image, over an all-digital network, with standard interfaces for telephones, computers, printers, etc. It can be used for high-speed facsimile, electronic and voice mail, as well as accessing services offered on the normal computer networks.

Integrated Systems: Several systems whose internal operation is closely linked.

Integrity: The accuracy, privacy, and security of stored data in Web services environment.

Intellectual Property: Creations of the mind, such as inventions, literary and artistic works, and symbols, names, images, and designs used in commerce.

Intelligent Terminal: A computer-oriented terminal that has built-in data checking capabilities and a small memory. It contains special functions that may also be built into the terminal to perform certain checks on the data or to handle certain transactions.

Interactive Computing: Computer processing in which the user communicates directly with the system to input data and instructions and to receive output.

Interactive Web Site: A Web site that provides opportunities for the customers and the business to communicate and share information.

Interface: This is a shared boundary between two systems, referring to the point at which one system's functioning ends and another system takes over.

Interface Engine: Program in an expert system that interacts with a knowledge base to formulate decisions or recommendations for decisions.

Intermediary Layer: Composed of companies that are involved in the market-making process of the Internet.

Internal Operations Information: A type of information required by top-level managers with key indicators of how the organization or a part of the organization is performing.

Internal Web Site Development: The process of building and maintaining the Web with an organization's own staff.

Internet: A public, global communications network that provides direct connectivity to anyone over a LAN via an ISP or directly via an ISP.

Internet Applications Layer: Provides support systems for the Internet economy ranging from webpage design to security.

Internet Business Service Provider (IBSP): Modern virtual organizations that provide internet and other business services mainly over the Internet.

Internet Infrastructure Layer: Composed of organizations that provide Internet services.

Interoperability: The ability of users to exchange information in any form without difficulty or delay, and without concern for where another party is located or where data resides.

Intranet: A corporate LAN or WAN that uses Internet technology such as Web browsers and is secured behind an organization's firewalls.

IP VPN: Virtual Private Networks within a Web service environment, this offers a flexible, cost-effective and secure alternative to expensive leased lines, and is an especially effective means of exchanging critical information for employees working remotely in branch offices, at home, or on the road. It can also enable organisations to extend secure and cost-effective connectivity to customers, suppliers and business partners, who may have a huge physical distance between them.

IS Specialist: This person has the technical expertise in computer hardware, software, data management, and communications, and a working knowledge of selected business functions and ability to interact with executives, managers, and staff members. The person could also be referred to as systems analyst, system designer, development specialist, information analyst, programmer, or analyst.

Just-in-Time Planning: A management strategy based on such careful and timely ordering that materials arrive "just in time" to meet production schedules. This saves on warehousing costs but requires close coordination with suppliers.

Knowledge: Collected information about an area of concern.

Knowledge Base: In an expert system, the knowledge base contains specific information about the area of expertise, such as facts (data) and rules that use the facts in making a decision.

Knowledge Engineer: A person that works with experts in a particular area to learn how the experts evaluate situations, the rules of thumb they use, and how they decide what actions to take. The engineer captures that knowledge in an organized way to store in a knowledge base, for use in an expert support system.

Knowledge Management (KM): The way an organization can leverage the know-how of its employees, trading partners, and outside experts of the benefit of the organization. It can also be an essential tool for success in the highly competitive world of the global economy in the 21st century.

Knowledge Portal: A single point of access software system intended to provide timely access to information and to support communities of knowledge workers.

Legacy Systems: Older systems that have become central to business operations and may be still capable of meeting these business needs; they may not require any immediate changes, or they may be in need of reengineering to meet new business needs.

Levels: The components of an information system organized hierarchically.

Leverage: Using competitive strategies that make the most of corporate strengths. This is often referred to as how an information system that makes possible better service or cost savings can be used in a strategy to give the organization a competitive advantage.

Liability: Legal responsibility for one's actions, service, or products.

Linkage: Any activity that affects the cost or effectiveness of another activity, which may be internal to an organization or with external entities.

Linkage Analysis: A top-down method of information systems planning that concentrates on the competitive advantages of information technology. Executives analyze where information systems support could better link related activities to enhance a product, service, or productivity.

Liquidity: The result of having a sufficient number of participants in the marketplace as well as sufficient transaction volume.

Load Sharing: In Web service environment, several systems units sharing the workload are more efficient than one unit, taking advantage of free time on any unit and making processors available to everyone even if one unit need repairs.

Local Area Network (LAN): A communication network that spans a single site covering a limited geographic distance and may link workstations, terminals, printers file servers or other computer equipments.

Localization: The process of converting media products developed in one country to form a culturally and linguistically acceptable in countries outside the original target market.

Logical Systems Design: The stage of systems design when functional specifications are formulated, stating what the system should do, how it should do it, and in what sequence data input, processing, out of reports, etc, should occur.

Logical View: This is often referred to as the users' view of data, focusing on data needed for applications rather than on details of storage or access.

Low-Cost Leadership: The competitive strategy of offering products or services of suitable quality at a low cost than competitors' comparable products or services.

Machine Language: A language used by the central processing unit of a computer to execute instructions and process data. Machine language instructions can be executed or processed without any translation because they are directly understandable.

Management: The act or skill of transforming resources into output to accomplish a desired result or objective.

Management Functions: Planning, organizing, staffing, controlling, and communicating activities or issues. These may involve establishing goals and the policies, procedures, and programs needed to achieve them or the measuring of performance against goals and developing procedures, to adjust goals, procedures, and activities.

Management Hierarchy: This consists of three levels: top-management, middle-management, and operating-management levels.

Management Information: This includes not only summaries of accounting information, but also textual information ranging from memos to general economic conditions to rumors and personal experience, transformed into information usable to the executive. Operating level managers need less comprehensive information, including factual details, exception reports, and accounting information.

Management Information Systems (MIS): An information system focused on supporting decisions in cases where information requirements can be identified in advance and the situation is known to recur, so that reports can be produced periodically.

Management Science Era (MSE): A time in history (that started in World War II) when management theory became important as operations research, using mathematical and statistical tools to consider complex business problems.

Management Theory: An analysis of how the complexities of business interrelate that provides a way of predicting future events, explaining past events, and understanding causes and effects.

Master Development Plan: A list of projects to be designed, constructed, and implemented in an organization. Each project is identified by a name and brief description of purpose which are developed by priority based on support of organization goals and objectives.

Master File: A permanent file of data pertaining to the history or current status of a factor or entity of interest to an organization. This file is periodically updated to maintain its usefulness.

Message Switching: A communications method used in a Web services environment that allows for full messages of data to be transmitted. If a message encounters a link in use, the message is temporarily stored, then forwarded when the line is free.

Middle-Management Level: Here is where you find managers that are concerned with overseeing performance in the organization and controlling activities that move the organization toward its goals. The types of issues middle-management are expected to deal with include employee training, personnel considerations, and equipment and material acquisition.

Model: An abstraction of events, in decision-making, surrounding a process, activity, or problem to remove an entity from its environment for examination without the distraction of unnecessary elements.

Model Bank: A database of models in a decision support system which are identified by a unique name and stored.

Modem: A device used to connect a computer and transmission channel that will carry data, normally used to modulate and demodulate communication signals.

Monitoring: Observing for a special purpose which may involve who accesses certain records, checking the records for proper usage, and identifying people who repeatedly attempt to use the database without proper authorization is part of the process of regulating access to stored data and could be either hardware or software performance.

Monolithic: A management information system design that attempts to build a single MIS encompassing the whole organization, anticipating all needs, usually an unrealistic endeavour.

Multilist: A data structure-like list organization in which pointers connect all records with a common attribute, plus the ability to run many lists through a database in one search and to allow a single record to belong to multiple lists.

Narrative Model: A language or narrative description of the relationship among variables in a process or system.

National Health Service (NHS): The United Kingdom's National Health Service free for all at the point of delivery.

Navigation: Moving through the system, from screen to screen or from page to page in a report or input form.

Negative Feedback: Data or information about system performance fed back to the system through a feedback control loop to correct performance fluctuations and help maintain the system within a critical operating range.

Network: A group of interconnected computers, workstations, or computer devices such as printers and date storage systems which can be closed together or far apart and may be linked with any data transmission channels.

Network Architecture: The infrastructure on which applications are based like the data voice transmission capabilities in an information system.

Network Data Model: A model of relationships among entities in the database like hierarchical model except that an entity can have more than one "parent" or relationship to the next higher level.

Network Management: An activity involving the monitoring of a network's internal operations and reallocating its workload to use its capacity efficiently.

NDS: A network directory services used for listing in a Novell system

NHS Information Authority (NHSIA): The National Health Service Information Authority

NICE: National Institute for Clinical Excellence

Niche: A narrow target area for a product or service within a larger market. Aiming at this market is a competitive strategy to win the business of a specific buyer group either by differentiating the product for that group or lowering costs as a result of the narrow focus.

Niche Strategy: Competitive strategy in which an organization selects a narrow-scope segment and seeks to be the best in quality, speed, or cost in that market.

Object-Oriented Programming (OOP): A style of computing programming, based on concepts of object, classes, inheritance, methods, message passing, and polymorphism, that treats data and programs as if they are tightly intertwined.

OCS: Order communication systems used for monitoring and managing activities in healthcare delivery process.

Off-Line: Equipment or devices not connected to or in direct communication with the central part of a computer system.

Offshore Outsourcing: Use of vendors in other countries, usually where labor is inexpensive, to do programming or other system development tasks.

Online: Equipment or devices connected to or directly communicating with the central part of a computer system.

Open System: Any system that interacts with its environment through input and output.

Open System Interface (OSI): The open systems interface reference model, a framework for defining network standards, regardless of technology, vendor, or country of origin.

Operating-Management Level: Managers who are essentially supervisors and form the largest group of managers in an organization. They are normally concern with schedules and deadlines, human relations, cost and quality control.

Operating System: A software that controls the operation of a computer system by providing for input/output, allocation of memory space, translation of programs, etc.

Organisation For Economic Co-Operation And Development (OECD): A committee in the European Union responsible for monitoring business arrangements within the Union.

Organization Analysis: A technique to evaluate the impact of a recently implemented system on the organization, assessing how structure, procedure, and policies have change and how the system is used.

Organization Theory: Focuses on alternate ways to structure an organization to best utilize people and other resources, such as equipment, material, and finances as well as providing for communication of information to appropriate personnel.

Organization Transformation: The change that has taken place when an organization's business processes, structure, strategy, and procedures are completely different from the old ones.

Organizational Culture: The aggregate attitudes in an organization concerning a certain issue.

Organizational Knowledge Base: The repository for an organization's accumulated knowledge.

Output: Data or information that result from processing and are made available to users. It could also be anything that is produced by a system and movement across the boundary into the environment.

Output Device: Something that receives a processing result from the processing unit and translates them into the appropriate form for user. It normally includes printer, display screens, and telephone or similar voice output devices.

Outsourcing: The subcontracting of computer system operations, telecommunications networks, and, in some cases, user support, training, and system development to contractors outside the organization.

Overflow Area: An area of storage, particularly on secondary storage devices, in which data can be stored when the main or primary storage area is already full or in use. It can sometimes be called Overflow Bucket.

Overlapped Processing: The occurrence of input, processing, and output operations simultaneously to improve throughput.

NPfIT: A national programme for information technology—a means of providing a usable electronic health record nationally to the UK.

Packet Switching: A communication method used in an Web services environment in which messages are stored in primary memory, divided into blocks, or packets, of a standard size, and transmitted. They route may be determined when the message is sent or at each node along the way.

Parallel Processing: The ability to perform multiple tasks simultaneously.

Parallel Systems: Conversion to a new information system while the old system continues operating for a period. This is usually done for the purpose of ensuring that data will not be lost if a problem arises in the new system.

Parametric User: This is a type of end-user who relies on predefined questions and structures presented by the system while entering or extracting data.

PAS: Patient administration systems

PC-OS: Personal computer operating systems

Perception: How an individual sees a situation, such as a new information system that changes information distribution with a Web services environment.

Performance Monitoring: Using monitors to determine usage of components of a system to help determine whether additional resources are needed or whether existing resources should be adjusted to improve performance.

Peripheral: This is often used to describe equipment attached to a particular network or other kinds of computer system to augment it or to make it possible to use the central processing unit. It could be an input or output device, a communications device or a secondary storage device.

Personal Computer (PC): A desktop microcomputer ranging from home computers, office desktops, and laptops that have the computing functions of large systems but are limited in speed and storage capacities.

Personal Computer Software: These are software packages designed for the personal computer commonly used for word processing, spreadsheets, data management, data communications, and graphics applications.

Personalization: The ability to tailor a product, service or Web content to specific user preferences.

Personalized Content: Web content that is prepared to match the needs and expectations of the individual visitor.

Phase-in-System: This is where the conversion of Web services (or other information systems) is done when the old system is gradually replaced by the new one in phases.

PHC/PHCT: Primary health care trust.

Physical Model: This represents the entity studied in appearance and, to some extent, in function.

Physical Systems Construction: The stage in systems development at which point the application is built.

Physical View: The way data are actually stored and organized on physical devices.

Pilot System: This is way of conversion to a Web services (or any other information system) in which only a small piece of the organization function is converted to the new system to see if problems develop.

Planning: The process of establishing goals, developing policies, procedures, and programs to achieve them.

Planning Information: A type of information required by top-level managers that describe major developments and programs being planned, including the assumptions and anticipated developments on which plans are based.

Platform: In regard to an information system, the basic type of computer and network that the system uses.

Positive Feedback: Data or information about the performance of a system that reinforces operation without change.

Privacy: This is a means of protecting computer records which guards against unauthorized distribution of data.

Private Branch Exchange: This can be a local-area network in which the existing telephone switching system is used as the center of a star topology.

Problem Avoider: A manager who tends to knowingly reject the notion that a problem exists usually by avoiding negative information and focuses on the positive aspects of a situation. That manager tends to use planning to avoid difficult situations and impending problems.

Product Manager: Within organizations with an information center, this person supervises the development, use, and support of all the applications to be shared by multiple users.

Productivity: The efficiency or output of certain task that have been specified.

Program Swapping: The movement of jobs between main memory and secondary storage device which happens in certain kind of system configurations where a program can be swapped in and out of memory several times before execution is completed.

Programmed Decision: A frequently recurring decision that represents a well-understood and well-structured situation, permitting the development of routines to state how the decision should be made.

Programming Language: This is a language where computer processing instructions are written or coded, in which the instructions that control the movement and processing of data are written.

Project: One of the three relational operators in a data manipulation language.

Project Goal: The result that should have occurred if the project is carried out successfully.

Projection: This is a form of resistance to a new information system in which people wrongly blame the system, rather than the training, for difficulties in using the system.

Protocol: This is the rules that allow entities to communicate with one another, including codes, identification, and acknowledgement schemes.

Prototype: This is a working version of an information system developed to allow users to evaluate its essential features that could also be considered an experimental version of a new system.

Proxies: Special software programs that run on the gateway server and pass repackaged packets from one network to the other.

Quality of Network Service (QNS): This is where many different ways as a combination of performance, features, reliability, conformance, durability, serviceability.

Random Organization: A file organization for data stored on secondary storage devices like magnetic disk or magnetic drum (but not magnetic tape) where records in a file may be addresses directly without accessing any other records in the file. This can be done by determining an address for the record and then going directly to the address.

Rationality: Selecting alternative expected to yield the best results, evaluated on the basis of some system of values.

Real-Time Processing: The processing of a request in an on-line system in which the results are available soon enough to be useful in controlling or affecting the activity in which the user is involved.

Record: A group of data items that are stored together and/or used together in processing. A collection of related data items treated as a unit.

Refreeze: This is where the system analysts, or change agent, have to reinforce the new system after it has been introduced, to return the organization to stability, when introducing a new system in a Web services environment.

Relational Database: This is a type of database in which the data are logically structured in relations (the tables of rows and columns represent records and data items).

Reliability: The accuracy of the picture provided by the information obtained from the system.

Remote Decision Network: A part of a GSS that brings decision making together through a network of computer rather than in a conference room, where each member has access to databases and decision support software and can see information and graphics displayed by other members.

Requirement Analysis: The stage in systems development in which systems analysts determine and describe user information needs so that design and construction can follow.

Resistance: Behaviour that opposes a change, such as implementing a new information system that can be best dealt with by preventing the rise of resistance.

Resource Allocation: The third stage of the model for information systems planning, consisting of developing the hard, software, data communications, facilities, personnel, and financial plans needed to execute the master development plan.

Response Time: the time that elapses between a request for data or processing and the receipt of the data or processing result.

Return on Investment (ROI): A ratio of required costs and perceived benefits of a project or an application.

Revenue Model: Description of how an organization or its e-commence project will earn revenue.

Ring Topology: A computer network structure in which each network point can communicate directly with any other point. Instead of a central computer directing communications, transmissions travel around the ring, and front-end processor at each site determines whether the message is addressed to it or should be passed along.

Risks: Foreseeable events whose occurrence could cause system degradation or failure.

Rule-Based System: The most common type of expert support system where the knowledge about a specific situation is represented as a set of conditions against which the facts or knowledge of a situation under evaluation can be checked.

Satisficing: Here is where a system analyst finds a course of action or strategy that is considered good enough to satisfy minimum standards of a model that reduces the complexities of trying to find the ideal solution. However, if the alternatives are difficult to find, the first acceptable one is likely to be chosen but when easy to find, minimum standards may be raised.

Scanning: A quick review of multiple external information sources, such as commercial databanks, using an executive support system.

Scenario Planning: A strategic planning methodology that generates plausible alternative futures to help decision makers identify actions that can be taken today to ensure success in the future.

Schema: A description of a database that includes a statement of the characteristics of the data and the relationship between different data elements.

Scientific Management Era: This is period in the history of management theory which began in the second century of the Industrial Revolution that aimed

at maximizing productivity, and where scientific management required job standards to measure performance, encouraged management-worker cooperation, and increased managers' responsibilities.

Secure Socket Layer (SSL): Protocol that utilizes standard certificates for authentication and data encryption to ensure privacy or confidentiality.

Security: Guarding against data destruction or tampering by controlling the rights of access to the database and ability to retrieve, change, add, or delete records.

Security Risk Management: A systematic process for determining the likelihood of various security attacks and for identifying the actions needed to prevent or mitigate those attacks.

Self-Contained System: A class or type of database management system that includes its own data description and data manipulation commands that are normally independent of any programming language.

Sequential Query Language (SQL): This is a widely used relational database language.

Serial Processing: A type of processing where one task is process at a time.

Service: The actions a seller performs for a specific customer.

Shareability: This situation occurs when a database resource is in use by multiple users and programs regardless of department or locations.

Shell: As regards expert support systems, shell is a development tool that includes a language for stating and managing the rules or frames that make up the knowledge base and an inference engine capable of reasoning with rule sets.

Simulation: A process of imitation of reality which is usually done for computerized experiments with proposed solutions.

Site Navigation: Aids that help visitors find the information they need quickly and easily.

SLA: Service Level Agreements for the service providers to be judged by when contracts are being assessed.

SQL: A query language used by most popular computer database systems.

Social Engineering: A type of nontechnical attack that uses social pressures to trick computer users into compromising computer networks to which those individuals have access.

Social Responsibility: Concern of a corporation for social issues like improving the air pollution or health level in a community where they operate or their systems interact with.

Socio-Technical Era: The era that began in the 1950s in management theory history in which the goals are both high job satisfaction and technological efficiency, to avoid having technical advances limited by users who are affected adversely.

Soft Information: Personal observation, opinion, and narrative commentary.

Softkey Method: An interface between system and user with a touch-screen that allows the user to select menu choices by touching them on the screen.

Software: Computer programs that control the processing of data in a computer system. It could be user-written as well as commercially prepared programs for translating, utility routines, or a database management system.

Software Monitor: A measurement tool for testing or monitoring the operating system which could also be considered a set of executable instructions embedded in the operating system.

Sorting: Arranging data into a particular sequence to make processing easier and data less cumbersome.

Specifier User: An end user who queries the database for data for decision making or accesses records to update them. The user would need to know the key words or codes to access or modify records.

Sponsor: A manager who makes sure resources are allocated for building and maintaining the system.

Spreadsheet: A computer program that replicates electronically the rows and columns of a worksheet, including arithmetic capabilities and the ability to manipulate data, widely used on personal computers.

Stack: The principal unit for storing information in hypertext, a powerful database management program.

Star Topology: A computer network structure in which each node is connected directly to a central computer that determines where to send the data next.

Statistical Software: Any software application designed to perform statistical analysis.

Status Information: This is a type of information required by top-level managers to keep them abreast of current problems and crises and aware of progress in taking advantage of opportunities.

Storage: Retaining data for later use, generally records of events affecting the organization.

Storage Structure: The physical organization of data as they are stored on a physical device, pertaining to sequential, random, indexed, or list file organizations.

Strategic Business Vision: A view of information systems focused on the organization's strengths and capabilities and its opportunities, and what information technology will enable the organization to do.

Strategic Information Systems (SIS): Information systems that play a major role in value chain of a product or service for an organization.

Strategic Situation: In assessing the significance of information systems to an organization the strategic situation is one I which information technology is critical to daily operations, and applications in development are essential to future competitive success.

Strategic Sourcing: Purchases involving long-term contracts that are usually based on private negotiations between sellers and buyers.

Strategy: A broad-based formula for how a business is going to compete, what its goals should be, and what plans and policies will be needed to carry out those goals.

Strategy Assessment: The continuous evaluation of progress toward the organization's strategic goals, resulting in corrective action and, if necessary, strategy reformulation.

Strategy Formulation: The development of strategies to exploit opportunities and manage threats in the business environment in light of corporate strengths and weaknesses.

Strategy Implementation: The development of detailed short-term plans for carrying out the projects agreed on in strategy formulation.

Strategy Initiation: The initial phase of strategic planning in which the organization examines itself and its environment.

Subsystem: A part of a larger system having all the properties of a system in its own right or one system in another system.

Supercomputer: The fastest and most expensive computer available, used for designing large equipments like supersonic jet, or used for forecasting weather.

Support Situation: In assessing the significance of information technology to an organization, the support situation is one in which information systems play an important role in support activities, although the organization could manage to function without them, and future systems may not change that situation.

Surveillance: Monitoring a situation, with executive support systems, where information is checked soon after it enters the system without waiting for a report.

Switching Costs: The expense an organization or individual incurs in lost time, expenditure of resources, and hassle, when changing from one supplier or system to another, normally used as an important factor in keeping customers whose needs are being satisfied.

SWOT Analysis: A methodology that surveys external opportunities and threats and relates them to internal strengths and weaknesses.

Synonym: This pertains to tow or more keys that derive to the same storage address under a particular key transformation algorithm.

Syntax Error: An error such as incorrect punctuation or spacing in a program that causes the program to fail that is common in third-general language.

System: An organized entity characterized by a boundary that separates it from all other system. A system might also consist of other systems or components and might interact with its environment through input and output.

System Development Life Cycle: The activities in developing a computer systems project beginning with perception of a need for the project. This is followed by the performance of a feasibility study. Thereafter if a project is accepted, the analysis, logical and physical design, and testing stages of the project occur. After the system has been tested and all errors corrected, the implementation stage takes place. During the system use, however, the system is evaluated, possibly which usually leads to maintenance and further changes.

System Programmer: A person who handles the storing of data in a database, working with physical rather than logical view of data. The person organizes data using an agreed-on storage structure to best meet other user's needs, selects storage devices, and specifies details of storage.

System Testing: Testing a system before implementation to determine how well it will perform and whether it meets original specifications. This is usually separate and distinctly done from program testing which looks for logic errors.

Tacit Knowledge: The knowledge that is usually in the domain of subjective, cognitive, and experiential learning which is highly personal and hard to formalize.

Tangible Benefits: These are benefits that can be measured directly to determine how well a system is performing.

Technician: This person maintains equipment, diagnosing malfunctions and making repairs. The person may also monitor new developments in software and evaluate them for potential use.

Telecommunications: Transmission of data from one device to another device in a different location.

Teleconferencing: The use of electronic transmission to permit two or more people to meet and discuss an idea or issue.

Theory of Change: This is a scientific theory identifying three stages of any change process.

Time Sharing: A computer system that is shared by two or more users in the same interval of time, where each use is unaffected by the others and may be unaware of anyone else's presence on the system.

Time Slice: The amount of time a particular computer program may execute in a time-sharing system. At the end of such period, control is transferred to another program and the control will alternate between programs, with each using multiple time slices in the course of a complete program execution.

Time Strategy: Competitive strategy, in which an organization treats time as a resource, then manages it and uses it as a source of competitive advantage.

Token Passing Method: This is a local-area network access method used with ring networks to avoid colliding messages. It entails a particular string of bits called the token going around the network until a device with a message to transmit picks up the token, transmits, and returns the token to the network.

Tool: Any device that improves the performance of a task. Tools for developing information systems increase developer productivity and/or enhance system quality. Tools exist for analysis, design, and development.

Top-Down Approach: An approach to systems planning that focuses on organization goals and strategies which requires a high degree of top-management involvement. It involves functions such as research and development, production, and marketing properly identified along with their information needs, and applications and databases to meet those needs that have been identified.

Topology: The arrangement of nodes in computer network (such as bus, star and ring) used for transmitting data.

Total Quality Management (TQM): This is a business strategy based on identifying, analyzing, and improving processes that directly or indirectly create value for the customer.

Trainer: This is a person in the information center for any organization who directly works with users to familiarize them with multiple-user applications developed by the center, with software packages, or with high-level languages such as query and retrieval.

Transaction: This normally refers to an even that involves or affects a business or organization that takes place during the course of routine business activities.

Transaction Processing: This is where one uses information technology to increase volume, accuracy, or consistency in processing data about business transactions.

Transaction Processing System: This is the processing of data about business activities, such as sales and movement of inventory.

Transmission Control Protocol/ Internet Protocol (TCP/IP): A set of standards for sharing data between different computers running incompatible operating systems.

Trend Analysis: The study of performance over time, attempting to show future direction using forecasting methods.

Turnaround Situation: In assessing the significance of information systems to an organization, the is the point at which the current technology is important for ongoing operations, but applications being developed are essential to revitalizing the business.

Uncertainty: This is a condition under which managers lack enough information to predict outcomes of activities accurately every time. It also occurs along with increased information needs when there are more possible results of an activity, a large number of different inputs, or difficulty in achieving goals.

Unfreeze: The preparing of an organization for change by encouraging flexible attitudes usually as part of the role of a systems analyst or change agent in introducing a new information system to an organization.

User Friendly: When an information system or application is considered easy to use.

User Working Area: An area in an application program in which data are brought in by the database management system, ready for use in the form required by the application, usually residing in the computer's main memory.

Validity: An important characteristic of information which determine if the information is meaningful and relevant to the stated purpose. A invalid information, on the other hand, means it applies to a different purpose than it was collected for.

Value-Added Network: A non-dedicated communication network made available on a subscription basis where users pay only for the amount of data they transmit.

Value Chain: A set of activities relevant to the understanding of the bases of cost and potential sources of differentiation in an organization. It may consist of basic business processes like inventory, manufacturing, marketing, or services and support activities like technology development or general management.

View: A description of selected data from a database, incorporating the relationships among data as they are used in any application program.

Virtual Private Network (VPN): A network that creates tunnels of secured data flows, using cryptography and authorization algorithms, to provide secure transport of private communications over the public Internet.

Virus: Software that can damage or destroy data or software in a computer.

Vision: A view of what can happen by using resources to transform opportunities into reality. It can also be an image that grows out of an organization's understanding of the area of interest, which could be produced by imagination and creativity.

Voice Processing: This process allows the storage, editing, and transmission of the spoken word. It allows voice-input word processing systems and verbal interaction with information systems for production, quality control, and other materials handling.

Warning Information: This is a type of information required by top-level managers to signal that changes are occurring, either opportunities emerging or the anticipation of trouble.

Web-based Conferencing: Linking together people at remote locations through their computers, over the web, where they have access to their own files as well as organization databases. Within Web services environment, the individuals are allowed to have information on the screen transmitted to all others and every piece of information can be stored by any one until purged.

Web Content Management: The process of collecting, publishing, revising, and removing content from a Web site to keep content fresh, accurate, compelling, and credible.

Web Hosting Service: A dedicated Web site hosting organization that offers a wide range of hosting services and functionality to businesses of all sizes.

Web Services: An architecture enabling assembly of distributed applications from software services and tying them together.

Webcasting: A free Internet news service that broadcasts personalized news and information in categories selected by the user.

Weighted Feature Analysis: The assessment of a new information system or application which is done by weighting the system features, such as ease of use

and the likelihood of error, from least to greatest importance and having users evaluate how well the system works with respect to those features.

Wide Area Network (WAN): A telecommunications network that links geographically separated locations.

Word Processor: An information system equipment that assists in preparation and communication of written, displayed or voice information, normally used to refer to input, editing, and printing or displaying of written information.

Work Group Support System: This is a type of information system used to support managers and other staff in their day-to-day activities. It may also provide electronic and voice mail or facsimile system or be used for electronic publishing.

Workstation: A computer that offers extremely powerful processing capabilities and high-quality graphics usually used in engineering design or telephone research centers.