Building an Information System

Artur Victoria

The Information Science is the discipline that investigates the properties and behaviour of information, the forces that govern the flow and the means to process the information for maximum accessibility and utility. It has a component of pure science research that is not related to its application and a component of applied science, which develops products and services.

Administration

The Information Management (IM) of helps in increasing the competitiveness of business and organizational processes of modernization from the point of view of planning and strategic use of information and associated technologies, and quality specifications, content and information security in the company.

The importance of the Information Technology is the application of the storage and retrieval of information and its dissemination in the data banks and networks of computers suitable for different systems. Information Society Human conglomerate that, by virtue of technological change, has had its shares of survival and development based on the creation, storage, distribution and intense use of information resources. Every system that using or not the resources of Information Technology, manipulates and generates information can generally be considered Information System.

Information Technology

The term "Information Technology" is all activity involving information processing and communication through integrated electronic equipment. This term is broader and refers to "all kinds of technology that operates with information, is a system of information, the automation of an industrial process, the communication between two computers organizations, or the personal use of computational resources.Information Technology broadly refers to the resources used by a firm in the processing and management of their data. These resources include hardware, software, communications (voice, data and video) and associated personnel. The information technology is the capabilities offered by computer applications - software - and telecommunications. technologies and applications that combine the processing and data storage with the capacity of transmission distance telecommunications. It presents as the basic components of data processing and / or information and communication through integrated electronic equipment for that.

Information Technology and its Impact

Technology is defined as the set of knowledge, especially scientific and special, which apply to a particular branch of activity, can also be regarded as a science that deals with the technique. Technology is a packet of information organized in different types (scientific, empirical ...), from various sources (scientific discoveries, patents, books, manuals, drawings...), obtained by different methods (research, development, copying, intelligence ...) and used in the production of goods and services. The author adds that "the knowledge and skills employed in the production of technological packages are the technological capabilities.

The growing development and integration of the elements of the IT (hardware, software, communication networks, workstation [CAD, CAM, CIM, etc..], Robotics and intelligent chips) have revolutionized the way to live, to communicate, to think and do business.

As information technology is being incorporated into the production system, it will radically alter the structure and the way in which work is performed, particularly with regard to the work of production and coordination of Types of Information Technology.

To obtain reference on the possibility of strategic use of IT, it is necessary to know the set that up. It may be considered as the following categories:

a) **Technology, hardware**;

b) **Information systems**;

c) **Automation of offices**;

d) **Engineering and design for computer**

e) **Industrial automation**;

f) **Specific features of automation**;

g) **Multimedia resources**.

The systematization of the most relevant set of Information Technology serves as a summary guide to research uses of the main strategic and must be constantly updated as any classification on the Information Technology becomes obsolete quickly, due to the speed of advances in this area.

Examples of IT:

a) **Technology for the planning of information technology** - computer methodologies, modelling data and processes, methodologies for preparation of Master Plan of Information Technology;

b) **Technologies for the development of systems** - methodologies for developing systems, methodologies, project management, methods of testing and debugging programs, techniques, systems analysis, technical design of systems, techniques, prototype, technical design of seat data, techniques of programming;

c) **Technologies for the support of software** - operating systems, systems management database; software processing, utilities, monitors performance, programming language, leading to implementation;

d) **Technology on production processes and operations** - CFP, capacity planning, performance management;

e) **Technologies on hardware support** - supercomputers, large-sized computers, networks of computers, local networks, linking micro-mainframe, microcomputers, RISC architecture, and graphic stations.

With knowledge of various types of existing IT, the next step is to understand how they may be used in organizations as a support to organizational strategies.

The use of Information Technology in Organizations

The rapid changes occurring in the business environment require organizations to adapt and seek new ways to compete and to differentiate from competition. The Information Technology, who is also the core of many of the innovations used by organizations to succeed or even survive.

The Information Technology is now used as a tool to promote competitiveness and acquire and / or sustain a competitive advantage against your competitors. This increased strategic use of IT is due to a change in the conception of the role of information in organizations. Until the 1960s, information was often associated with the tasks of design, produces and distributes a producer service.

The first information system that was created was a semi-automatic system, called Electronic Accounting Machines (EAM).

In the 1960s, the organization began to recognize that the information could be used to support the management in general. The coming out of the mainframe companies allowed to process data in a centralized manner, and the mainframe became the centre of the IT operations of the firm.

The Management Information Systems (GIS), was developed for the proposal to increase the speed of reporting required. At that time, the applications of IT targeted the automation of repetitive tasks and decisions of investment in IT in general, were evaluated in terms of

cost reduction work The decision for the support system (DSS) and Executive Support Systems (SAE), came to improve and increase the speed of decision-making process of specific managers and executives in a wide range of problems.

The minicomputer also boosts the use of IT in firms that had no financial capacity to invest in mainframe The return on investment in IT is related to cost reduction. The computers and communications equipment and personnel are connected to a central data processing.

Users access the data online by consulting a computer terminal or reports. The data centre is also responsible for the development of various software that processed and update to users. Also common was the existence of the department of Management Information System (GIS). This department had a team of analysts and programmers who have identified, designed and developed new software to support the activities of the firm. The computer resources are considered tools to support business.

In the mid-1980s, the concept of information has to be a strategic resource, a potential source of competitive advantage and a strategic weapon. The strategic systems appeared to ensure the survival and prosperity of the organization.

The Information Technology has then taken a more inclusive, in which the implementation of business increasingly depends on its application. The introduction of the personal computer (PC) and a proliferation of standards for hardware and software have caused a change in organizations and the role played by IT.

As the PC had a lower cost to the mainframe, the managers began to develop individual applications beyond the control of the GIS department, leading to a decentralization of information. These applications would meet the departmental needs.

The Information Technology has involved all major divisions of the company, dozens of full-time programmers, consultants and multiple machines (or remote computers linked by telecommunications networks), and perhaps hundreds of end users in the organization that used the same data for various applications.

The data, instead of being localized and controlled by the central data processing, have been used by hundreds of employees from their computers, each more powerful than the large computers as half of the 1980s. This system makes the management and institutional changes this new hardware makes the software more powerful, easy to use for beginners.

In a few hours, employees can learn respect not able to use a word processor and prepare schemes and applications of telecommunications in a microcomputer. Additionally, you can now, for end users to design their own simple applications and systems without the help of programmers.

In the early 1990s, the IT enabled the transformation of business, acquiring a strategic nature.

The evolution of the role of technology is tied to scientific and technological advances in the field of information technology, the pressures of an increasingly competitive environment and changes in the design of strategies for managing the business.

There is a growing interdependence between business strategies, roles and procedures, on the one hand, and software, hardware, data and telecommunications, on the other. A change in any of these components often requires changes in other components.

The technological advance of microcomputers, the development of communications that carry data, voice, sounds and images, the application of computers and telecommunications to improve products, services and organizations to identify more clearly the profile of the information society.

Today, the Information Technology helps to create and disseminate knowledge and information throughout the organization through new work systems of knowledge, applications, providing access to data throughout the company and communications networks.

IT is now seen as key tool to trigger the business and its use becomes a major factor responsible for the success of organizations, whether at the level of survival, is to obtain greater competitiveness.

The dependency of organizations on IT is growing. In light of their growing importance, but also its significant role in raising the competitiveness of the organization, the planning of its use should be part of organizational strategies.

The strategy of using the IT organization must be consistent with its strategy of business. This alignment is to ensure that the allocation of resources for IT projects and provide guidelines for its planning and priorities. However, what we have seen in the course of history is a growing complexity in the task of seeking such affinity.

Main factors contributing to the misalignment between business and IT strategies:

- Pressure from suppliers of technology solutions for business;

- IT management model still stuck to traditional models of information centralized;

- Profile of the professional management of IT;

- IT professionals with a vision too technical;

- Vision of IT and business end rather than means;

- Not consider the IT in the strategic context;

- Divergence in the training of Chief Information Officer (CIO) and Chief Executive Officer (CEO) ;

- Distribution of computing for the end user;

- Promises unfulfilled;

- Disputes for space and power;

- Internal organization;

- Lack of distribution of responsibilities regarding the success / failure of development of IT solutions;

- Low participation of the CEO with the area of IT;

- Lack of harmony between the management of the corporation's IT and IT management of its business lines;

- Problems of communication as to language;

- Reduction of the group of IT;

- Low commitment of senior leadership in the success / failure of IT solutions, planned;

- CEO's position on the potential of IT;

- Lack of prioritization of projects by the IT professionals;

- Low capacity for understanding the strategies;

- Problems in the process of reporting strategies;

- High turnover in office of the CIO;

The identification of the use of Information Technology in support of organizational strategies can occur, and often occurs through a process almost intuitive. However, there must be a systematization of this whole process.

To facilitate the process of using IT as a strategic resource, some bases should be explored: the concepts of optimal product and process, implementation of vision systems and vision essential to the analysis of problems / systems and the search for innovative solutions, which **Information Technology** can be used to make the company more competitive, which are fundamental aspects of business strategy can help organize the search of solutions for

strategic impact. Considered these issues, managers may be better placed to assess whether their enterprises are ready to use IT as a support to organizational strategies.

The definition of opportunities and competitive advantages with the use of information technology should follow the following steps:

- **Understanding of the concepts of competitive forces and strategies**;
- **Definition of competitive forces critical to the company**;
- **Definition of strategies that the company adopts**;
- **Assessing the impact of Information Technology**;
- **Definition of the degree of dependence on the company's Information Technology**;
- **Definition of strategic opportunities for Information Technology**.

Strategic impacts that IT can create, thus summarized:

a) Causes changes in the organization of the work process (work becomes more abstract, reduction of time and space, providing continuous knowledge of new ways of managing the business);

b) Enables the integration between the various business units of the level of the organization and beyond its borders (virtual production chain). Business competitiveness depends on a good interaction with suppliers and customers, which can also be obtained via IT;

c) Changes the competitive nature of many industries (strategic alliances and cooperative agreements between competitors, in which companies cooperate to share resources and services, gaining competitive advantage);

d) Provides new strategic opportunities for organizations causing an evaluation and redefinition of the mission, the goals, strategies and operations;

e) Require changes in management strategies and organizational structure, assuming changes in organizational culture.

The implementation of technological innovations often requires social-technical changes, which calls for a relatively long time to adapt. This objective is not easy to achieve because individuals resist the change, both to those imposed on an organization as to which employees are subjected to when their work is renovated.

This is a major obstacle to strategic transitions. Thus, for this process is successful, it is necessary that those responsible for implementation of Information Technology have a

greater understanding of organizational change. Degree of Complexity Management in Information Technology.

The studies in this area it is possible to give the participants act and be understanding of the processes of formulating and implementing policies for the application of information technology administration, to meet the challenges of the state, related to the principles of ethics, equity, social justice and rationality: The professionals involved will become able to:

- Know the potential of information technology in solving problems of management in state organizations.

- Structured information systems.

- Specify a system in the area of information technology.

- Hiring and evaluating service providers in the areas of management and information technology.

The technical profile of the people involved will occur in accordance with the potential to lead to lead processes of change.

They should have experience in managing teams or in the conduct of projects of implementation of information technology, knowledge preliminary to access the database, logical quantitative, for challenges and ease of performance and interpersonal relationships.

Technology and Information Management In the context of this review the concept of IT aims to be broader in scope, not limited only to hardware, software and data communications.

Based on Etymologically the term technology, there is the difficulty of establishing a total separation between the terms information, information system and technology.

The implementation of IT requires a complete reorganization of the function information, which is heavily dependent on human resources particularly considering the capacity of inter-relationship personnel, ability to change and creativity.

Security and Information

With the argument that society needs to have certain products or services, the government creates a public that is structured to act in a particular industry, such as education, health, safety and welfare.

IT presents it as the basic components of data processing and / or information and communication through integrated electronic equipment for that. Thus, supply the products or services directly to people who paid for through taxes.

The information is a knowledge (written) in the form written (printed or digital), oral or audiovisual. The information includes an element of direction. It is a way to a conscience transmitted through a recorded message on a space-time medium.

The information can be defined as a fact, an event, and a statement. The term information has the following attributes:

- A synonym of a fact,

- Strength of what is already known,

- Freedom of choice to select a message,

- Raw material from which knowledge is extracted, what is exchanged with the outside world and not only received passively, defined in terms of its effects on the receiver, something that reduces uncertainty in a given situation.

Information and knowledge are related but not synonymous. It is also necessary to distinguish two types of knowledge:

There is:

- **Tacit knowledge.** Is the practical knowledge of an accumulate on a given subject, which includes convictions, beliefs, feelings, emotions and other factors related to experience and the personality of who has this knowledge

- **Explicit knowledge**. Is the collection of information is based somewhere e.g. support (books, documents, etc.) that characterizes the knowledge available on a specific topic.

- **Strategic Knowledge**. Is the combination of explicit and tacit knowledge formed the basis of information for monitoring, aggregating the knowledge of experts.

However **"information" as is a term that involves all three, and serve as connection between the raw data and knowledge that can possibly get**.

The information includes the elements of meaning. It is a meaning to a conscious transmitted through a recorded message on a spatial - temporal media: print, electronic signal, sound wave, etc.

The information must be:

a) **Clea**r: make that clear, not masking between facts accessories;

b) **Accurate**: and never make terms such as "around ...», 'around ...»,' more or less';

c) **Quick**: get the point of decision in time to generate effect on that decision. Information may be clear and precise but arrive late, losing its reason for being;

d) **Directed**: who needs it and will decide based on that information.

The concept of information is also used to record information as the product of a process.

The notion of information reduces ambiguity and can be seen as a particular case of information and knowledge. The concept of information is also used for objects such as data or documents that are referred to as information because they are considered as "informative" as bearer of a correct knowledge or communicate information.

The information is considered as a strategy in the areas of collection, identification, treatment, organization, distribution and use in the administrative process and productive.

The growing need to manage information, considering the human aspects and information technology related, resulted in the proposed formation of a professional area, originally called the "Information Resources Management.

Translated as information management has become a field of study already considered in the United States and Europe, whose theoretical and operational content has become an essential tool for any organization that needs to produce, locate, collect, test , store, distribute and promote the use of information.

The management of the information with the Information Science, administration and information technology results in a set of skills and theoretical and practical knowledge that allows the structuring of information systems.

A growing number of institutions private or governmental in nature, are forced to adopt programs for **information management, aiming at ethical performance of its activities and an appropriate decision - making process**.

Building an Information System

An information system (IS) can be defined as "a set of inter-related components working together to collect, retrieve, process, store and distribute information in order to facilitate the planning, control, coordination, analysis and decision making in companies and other organizations."

The most common concepts of an information system are those in which:

- **Computer networks are systems of components of information processing**;

- **The use of computer networks by firms are, in fact, interconnected information systems**;

- **Developing ways of using computer networks in business includes the design of the basic components of information systems**;

- **The administration of information technology emphasizes the quality and value for business and security of information systems in an organization**.

The IS contains information about people, places, and those facts that help managers to make decisions, analyze and visualize complex issues and solve other problems.

For this, use a cycle of three basic activities: input, processing and output. The IS has three basic functions in the organization of a company, which has the capacity to transform information into knowledge.

- **Troubleshooting**, by equating the proposal of solutions to support the manager of the company to act ;

- **Production of Knowledge**, by obtaining information that would be difficult to access by other procedures;

- **Providing an awareness** in problems of organization and development.

There are some definitions of "management information system:

- System of people, equipment, procedures, documents and communications that collects, validates, processes transactions, processes, stores, retrieves and presents data for use in planning, budgeting, accounting, control and management processes for various other administrative purposes.

- Systems for processing information to become management decisions;

- Organized method of providing information from past, present and future, related to internal operations and external intelligence service. Serves to support the functions of planning, control and operation of an enterprise through the provision of information in the pattern of time appropriate to assist the decision-maker;

- Man-machine integrated system that provides information to support the functions of operation, administration and decision making in the company;

o Group of people or a set of manuals and equipment, data processing aimed to the selection, storage, processing and retrieval of data in order to reduce uncertainty in decision making through the provision of in time information for executives so they can use it for the most efficient way;

- System toward the collection, storage, retrieval and processing of information, used or desired by one or more executives to perform in its activities;

- Organized method for providing the executive of information from the past, present and future on the internal operation of the company and the business environment

- Combination of people, facilities, technology, business environment, procedures and controls, essential to process certain transactions in typical routines, to warn the executives to the significance of internal and external events, providing a basis for intelligent decision making.

Types of Information Systems

An information system should provide quality information to business and filter them by levels of decision, or subdivide them into levels, according to the hierarchical functional levels that will use them and levels of decision that should receive the information with a summary for strategic decisions.

An information system expresses a fundamental conceptual structure, depends on human resources (the end users and experts in SI), hardware (machines and average), software (programs and procedures), data (databases and knowledge bases) and network (mean of communication and support network) to perform activities of entry, processing, production, storage and control of resources that convert data into information products.

An information system is an integral part of an organization and is a product of three components: technology, organizations and individuals, where:

- **Organizations** - An organization is hierarchical and structured formed. Each organization has a specific culture, or fundamental assumptions, values and methods. An organizations need to build systems to solve problems created by internal and external factors;

- **People** - people use information from systems based on computers in their work. They are required to enter data into the system, so that the computer can read them.

- **Technology** - the technology is the means by which data is processed and organized for use by people. Computers replaced the manual processing technology and can perform millions and even hundreds of millions of instructions per second. An information system

has features of Information Systems. In the basic model of IS have been 5 resources keys: people, hardware, software, data and networks.

- **Human resources** - people are required for all information systems, which are the end users and experts in IS.

- **Hardware Resources** - all physical devices in equipment used in processing information.

- **Software Resources** - all sets of operational instructions called programs, functioning for directing and controlling the hardware, beyond the sets of instructions for processing the information.

- **Resource Data** - more than the raw material is in fact a valuable organizational resource to be managed effectively to benefit all end users of an organization.

- **Resource Network** - telecommunications networks such as the Internet, intranets and extranets, which are essential to the success in the operation of all businesses, is an important activity to characterize the success of the system.

Data, Information and Knowledge

Data, information and knowledge are key elements for communication and decision making in organizations, but their meanings are not so obvious. They form a hierarchical system of difficult delimitation.

What are given to an individual may be information and / or knowledge to another. Considering the link and can difficult to separate clearly what is given, information and knowledge, and aware of its importance to the decision.

The data elements are raw, meaningless, disengaged from the reality. Are comments on the state of the world.

Symbols and images that are not dissipate uncertainty. Are the raw materials of information.

The knowledge can then be regarded as information processed by individuals. The value of information depends on previous knowledge of these individuals. Therefore, it acquires knowledge through the use of the information into action.

Thus, knowledge cannot be released to individuals, it is closely related to the perception of that which encodes, decodes, and distorts the information according to their personal characteristics, or according to their mental models.

The concept of knowledge has a more complex sense of the information. Knowing is a process of understanding and internalizing the information received, possibly combining them in order to generate more knowledge.

When you consider the interrelationship between the three elements and make the analysis can infer that the data alone do not mean knowledge useful for decision making, and it is only the beginning of the process.

The challenge of decision-makers is to transform data into information and information into knowledge, minimizing the interference in the process of individual transformation. **Transforming Data into Information and Knowledge providing data, information and knowledge of meanings** is not a process as simple as it sounds.

Individual characteristics that form the mental model of each person interfere with the encoding / decoding of these elements, often causing individual distortions that may cause problems in the communication process.

There are differences between what is meant and what it really says, between what is said and what others hear, between what they hear and what they hear, among which understands and remember, and remember that between the relay.

People only hear what they want and how they want, according to their own experiences, paradigms and pre-trials. There is information that people do not understand and do not see, and what information they see no link, information that you see, and do not understand or not decoding; information they see and use, information seeking, information to guess. The state of mind and mood can affect the way it deals with information.

The informational approaches usually emphasize the attributes rational, sequential and analytical information and its management to the detriment of other equally important (if not more) and the approaches related to non-linear and intuitive. The seizure of information is a higher cognitive function that takes place within the language.

If you want to learn more details of the context in which they are inserted, has been to expand the perceptual abilities, because the way of living leads to a narrowing perceptual world and a vision of limited and fragmented and that the needs of people on information change constantly because the perception, in addition to individual, is contingent.

Thus, the decision must be aware that the biggest challenge is not to obtain data, information and knowledge, but rather the acceptance that, in the process of encoding / decoding, distortions occur and that there are ways to mitigate them.

Being aware of these and many other demands on interference with data, information and knowledge in decision-making is the first step to alleviate them.

The Fostering of Decisions

In decision-making process is important to have available data, information and knowledge, but these are usually scattered, fragmented and stored in the minds of individuals and suffer interference from their mental models.

At that time, the process of communication and teamwork play important roles to solve some of the key difficulties in decision-making process. The process of communication, you can get the consensus that will provide for the adjustment of individual plans of action on the basis of conviction and not the imposition or manipulation.

By working together, we can get the most information and different perspectives of analysis, and validated to the most convincing argument of confrontation in others.

To boost the quality of organizational decisions, it is suggested a discussion on improving communication and the involvement of people in decision making.

Improving communication

Some theorists of administration, as Davenport (1998), Nonaka & Takeuchi (1997), Stewart (1998) and Sveiby (1998), suggests a new direction for the communication, focused primarily on issues related to the transmission of information and organizational knowledge.

The concepts of data, information and knowledge are closely related to its effectiveness in decision making and related to the concept of communication.

The communication process is a sequence of events in which data, information and knowledge are transmitted from a transmitter to a receiver.

A characteristic of information is the difficulty of transferring them with absolute loyalty, and, with the knowledge the information given value, thus the transmission is even more difficult.

The information is valuable precisely because someone gave him a context, a meaning, added it to their own wisdom, considered the implications further, generating knowledge. Knowledge, therefore, is tacit and difficult to explain. "Anyone who has tried to transfer knowledge between people or groups you know how difficult the task.

The recipients must not only use the information, but also recognize that in fact is knowledge. To improve the quality of communication, the human being needs to develop skills to express themselves and listen. Usually people are predisposed to defend their views. Thus, when a person speaks, the other is not attentive to what he says, but is already

preparing the arguments to defend their views on the matter, interfering with the quality of communication.

The communicative action actually occurs when people are free to self, try to reach agreement on a position of decision making, listening and respecting other opinions. Corroborating this view requires that a number of people with intellectual preparation, information and interest in reaching an agreement, debate all the possible alternatives, to be a consensual plan of collective action.

Involving people in decision

Decision-making in organizations will require more work in teams and greater involvement of people.

The work as a team it shows the procedures of dialogue based on the idea that in an organization, the communication should be encouraged to the establishment of a common thought. The establishment of a common thought is to consider the views of each, so that the decisions made in organizations have a level of superior quality.

Whereas no person has all the information and organizational knowledge and not always this information and knowledge are out and available, so that each one holds only a part of them, the decision-making team is in a form to be used to overcome the barriers of information and partial knowledge.

The decision that involves a larger number of people tends to the most qualified, increasing knowledge of the decision-ease, the aggregation of information and knowledge, the distortion of individual vision.

Decisions by diverse teams, composed by men, women, youth, elderly, tends to result in higher quality. A person with views and experiences of different decoding decision sees situations differently. Listen and try to understand these views leads to the improvement of decisions. Decisions taken in team tend to be stronger that taken individually, although usually ask more.

When it comes to decision making and especially in decision-making team, we must consider the role that the technology performs.

Technology to support

The technology has a key role in both communication and storage of data, information and knowledge as the integration of decision-makers. Also have enormous potential for sharing of knowledge.

From anywhere in the world, the decision-maker can reach past experience of others and learn from them. The exchange of information and knowledge and their quality and speed are at the heart of the success of organizations.

The higher the capacity of information technologies and communication, the greater is the ability of relationships and the ability to learn and profit from the sharing of information and knowledge.

At the same time as they lead to increased ability to share information and knowledge, they also increased the available quantities, which are, after all, an increase of raw data, of which only one party becomes information potential, which means that only few of them are transformed into information or knowledge.

The increase in the volume of information and knowledge has been increasingly difficult in times of decision. The executive of the beginning of the century took decisions based on lack of information.

Today, the executive men are facing an increasing amount of information available. Buried in a sea of data, information and knowledge, executives must develop the skills and competencies to separate the 'cockle', therefore, for the information and knowledge are considered useful should be understood and used by decision-maker.

Representation of Elements in Decision Making

Understanding what data, information and knowledge and their interrelationships with the processes of communication and decision with the elements involved in decision making, which seeks to encourage discussion of the data, information and knowledge should be seen as a chain of added value and they are essential to decision-making and therefore should not be confined to the head of the individual organization, but shared by a well established system of communication.

The analysis of the factors involved in decision making does not intend to finish the discussion about the decision making in organizations, in view of their complexity. Accordingly, it is necessary to consider the issue as there is no perfect formula for making right decisions in the company.

In the traditional organization, decisions are taken by elite that perpetuates in the decision power through a wide-ranging alliance, causing detachment of macro-objectives and loss of information.

The management communication, is based on communicative action as the discursive formation of will, the debate between subjective intact under conditions close to ideal.

A key element to this decision-making is the expectation of a mature individual behaviour, both as social morality.

The result is a confrontation between avoidable and unavoidable complexity of the traditional models of management and communication. Information and technology go together since computers became commercial equipment, in the 1960s. In the first stage, the use of computers was limited to the transactions with high speed, first performed manually.

New tools and methodologies have emerged since then, the search for improvement of systems that started to gain increasing importance, however, there are items to be organized properly so that the computer system can express the desired by farmers, such as information and data showing that different concepts and so often this difference is unclear, causing difficulties for the user of the system.

The data used by the system can be defined as a formal abstraction that can be represented and processed by a computer. We can understand the data as a mathematical entity purely syntactic, which can be represented by structures and formal descriptions.

The representations of numbers and words are easily stored in a digital camera, from the use of conventions and standards related to binary digits and characters.

The informal information is an abstraction and therefore cannot be represented by any theory or mathematical logic. A report, a picture or a diagram are examples of information, as they have meaning for people who make their readings.

The individual perception is a factor that emphasizes the understanding of information.

The concept of information is not accurate, because it involves abstractions and perceptions by people who are doing the reading of the information itself.

The perception is that it allows the particularized message might be interpreted so that the transformation is appropriate for the information, but if the reading is done as a team, not the predominant perception of an individual only at the time of making the decision, providing the organization with that of an impartial decision-making.