

Chapter 1 : Body system communication

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Animal Duality of Patterning Distinctive sounds, called phonemes, are arbitrary and have no meaning. But humans can string these sounds in an infinite number of ways to create meaning via words and sentences. Other animals do not communicate by arranging arbitrary sounds, which limits the number of messages they can create. Creativity New words can be invented easily. Animals have to evolve in order for their signs to change. Animal communication is context driven—they react to stimuli, or indexes. Interchangeability Any gender of human can use the same languages. Certain animal communications in the animal world can only be used by one gender of that animal. Cultural Transmission Humans acquire language culturally—words must be learned. The way that animals communicate are biological, or inborn. Arbitrariness Human language is symbolic, using a set number of sounds phonemes and characters alphabet, which allows ideas to be recorded and preserved. Animal communication is not symbolic, so it cannot preserve ideas of the past. Biology On a purely biological level, the human voice box and tongue are very unique, and are required to make the sounds we recognize as language. Other animals have different biological structures, which impact they way they make sounds. Ambiguity A word, or sign, can have several meanings. Every sign has only one meaning. Variety Human language can arrange words into an infinite number of ideas, sometimes referred to as discrete infinity. Animals only have a limited number of combinations they can use to communicate. In Depth While many scholars may add to this list, this article will examine seven properties that are largely unique to human language: Duality Duality of patterning: Distinctive sounds, called phonemes, are arbitrary and have no meaning. The primary difference is known as duality of patterning, or structure. Each human language has a fixed number of sound units called "phonemes. Creativity Yet another distinctive feature is creativity. Human beings use their linguistic resources to produce new expressions and sentences. They arrange and rearrange phonemes, morphemes, words, and phrases in a way that can express an infinite number of ideas. This is also called the open-endedness of language. Animal communication is a closed system. It cannot produce new signals to communicate novel events or experiences. Other animals react only to stimuli in the present. Human beings can talk of real or imaginary situations, places, or objects far removed from their present surroundings and time. Other animals, on the other hand, communicate in reaction to a stimulus in the immediate environment, such as food or danger. Because of this, human language is considered context-free, whereas animal communication is mostly context bound. Interchangeability Human language is interchangeable between sexes. But certain communications in animal world are performed only by one gender. For example, bee dancing is only performed by worker bees, which are female. Cultural Transmission Cultural Transmission: Human language is culturally transmitted, or taught. Other animals communicate largely with signs they are born knowing. Another important difference is that human language is culturally transmitted. Human beings brought up in different cultures acquire different languages. Man can also learn other languages via the influence of other cultures. Animals lack this capacity. Their communication ability is transmitted biologically, so they are unable to learn other languages. Arbitrariness Human language is a symbolic system. These signs can also be written with the symbols, or alphabet, of that language. Both verbal and written language can be passed down to future generations. Animal communication is not symbolic, which means ideas cannot be preserved for the future. Biology Biological differences also play a vital role in communication. Human vocal cords can produce a large number of sounds. Each human language uses a number of those sounds. Animal and birds have entirely different biological structures, which impact the way they can form sounds. Does that mean that other animals can display these properties? Turning hand gestures into meaning certainly displays arbitrariness. But Herbert Terrace, the psychology that led the study doubted that Nim had really learned a language. He noted that Nim very rarely signed spontaneously; instead, he would react to signs his teacher was making. The idea below shows other contested examples of when the line between human and animal communication becomes blurred. Bibliography 1 Kuriakose, K.

Chapter 2 : Shippensburg University - Human Communication Studies

The Human Resource Information System (HRIS) is a software or online solution for the data entry, data tracking, and data information needs of the Human Resources, payroll, management, and accounting functions within a business.

Different Types of Communication Systems Different Types of Communication Systems A thought kept in the brain is of no use unless and until it is shared with other individuals and rest of the world. The idea, no matter however brilliant it is, must come out for its successful implementation for it to benefit one and all. It is the prime responsibility of the individual to share his thoughts and ideas with others. How is it possible? How can one share his ideas and thoughts? The communication system enables the successful transmission of idea or any other important information among individuals. The person from whom the thought originates carefully encodes his ideas into a sensible content which is now ready to be shared with everyone. He is commonly referred to as the sender and the other party who receives the information from him is called the receiver or the recipient. The free flow of information between the sender and the receiver takes place because of the communication system. The flow of information can be between two individuals. The information can flow from the individual to a machine, from the machine to the individual and even between two machines. Machines coupled together through networks also provide signals for the individuals to respond, thus a type of communication system. In the above cases all the machines must work on similar lines and patterns, must be technically compatible and has to provide the same information, so that the individuals can decode the information well. Let us study the various types of communication system for the smooth flow of information between two parties. As the name itself suggests, optical communication system depends on light as the medium for communication. In an optical communication system the transmitter converts the information into an optical signal in the form of light and finally the signal then reaches the recipient. The recipient then decodes the signal and responds accordingly. In optical communication system, light helps in the transmission of information. The safe landing of helicopters and aeroplanes work on the above principle. The pilots receive light signals from the base and decide their next movements. On the roads, red light communicates the individual to immediately stop while the individual moves on seeing the green light. In this mode of communication light travels through the optical fibre. **Radio Communication System** In the radio communication system the information flows with the help of a radio. Radio communication system works with the aid of a transmitter and a receiver both equipped with an antenna. The transmitter with the help of an antenna produces signals which are carried through radio carrier wave. The receiver also with the help of an antenna receives the signal. Some information is unwanted and must be discarded and hence the electronic filters help in the separation of radio signals from other unwanted signals which are further amplified to an optimum level. Finally the signals are decoded in an information which can be easily understood by the individuals for them to respond accordingly. **Duplex communications system** In Duplex communications system two equipments can communicate with each other in both the directions simultaneously and hence the name Duplex. When you interact with your friend over the telephone, both of you can listen to each other at the same time. The sender sends the signals to the receiver who receives it then and there and also give his valuable feedback to the speaker for him to respond. Hence the communication actually takes place between the speaker and the receiver simultaneously. In the Duplex communication system, two devices can communicate with each other at the same time. A type of communication system involves the sender and the receiver where the sender is in charge of sending signals and the recipients only listen to it and respond accordingly. Such communication is also called Simplex communication system. The sender has to stop sending the signals to the recipient and then only the recipient can respond. A walkie talkie works on the half duplex communication system. He needs to speak the security code correctly for the other person to speak. The other party will never communicate unless and until the code is correct and complete. **Tactical Communication System** Another mode of communication is the tactical mode of communication. In this mode of communication, communication varies according to the changes in the environmental conditions and other situations. All the above modes of communication work for a common objective ie to transfer the information

from one party to the other party. The various models of communication system help us to understand the route of flow of information from the sender to the recipients through some medium.

Chapter 3 : Types of Human Resource Information Systems (HRIS)

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Nonverbal communication Nonverbal communication describes the processes of conveying a type of information in the form of non-linguistic representations. Examples of nonverbal communication include haptic communication , chronemic communication , gestures , body language , facial expressions , eye contact , and how one dresses. Nonverbal communication also relates to the intent of a message. Examples of intent are voluntary, intentional movements like shaking a hand or winking, as well as involuntary, such as sweating. It affects communication most at the subconscious level and establishes trust. Likewise, written texts include nonverbal elements such as handwriting style, the spatial arrangement of words and the use of emoticons to convey emotion. Once proximity has formed awareness, living creatures begin interpreting any signals received. However, non-verbal communication is ambiguous. There are several reasons as to why non-verbal communication plays a vital role in communication: To have total communication, all non-verbal channels such as the body, face, voice, appearance, touch, distance, timing, and other environmental forces must be engaged during face-to-face interaction. Written communication can also have non-verbal attributes. Such non-verbal signals allow the most basic form of communication when verbal communication is not effective due to language barriers. Verbal[edit] Verbal communication is the spoken or written conveyance of a message. Human language can be defined as a system of symbols sometimes known as lexemes and the grammars rules by which the symbols are manipulated. The word "language" also refers to common properties of languages. Language learning normally occurs most intensively during human childhood. Most of the thousands of human languages use patterns of sound or gesture for symbols which enable communication with others around them. Languages tend to share certain properties, although there are exceptions. There is no defined line between a language and a dialect. Constructed languages such as Esperanto , programming languages , and various mathematical formalism is not necessarily restricted to the properties shared by human languages. As previously mentioned, language can be characterized as symbolic. Charles Ogden and I. A Richards developed The Triangle of Meaning model to explain the symbol the relationship between a word , the referent the thing it describes , and the meaning the thought associated with the word and the thing. The properties of language are governed by rules. Language follows phonological rules sounds that appear in a language , syntactic rules arrangement of words and punctuation in a sentence , semantic rules the agreed upon meaning of words , and pragmatic rules meaning derived upon context. The meanings that are attached to words can be literal, or otherwise known as denotative; relating to the topic being discussed, or, the meanings take context and relationships into account, otherwise known as connotative; relating to the feelings, history, and power dynamics of the communicators. There are however, nonverbal elements to signed languages, such as the speed, intensity, and size of signs that are made. A signer might sign "yes" in response to a question, or they might sign a sarcastic-large slow yes to convey a different nonverbal meaning. The sign yes is the verbal message while the other movements add nonverbal meaning to the message. Written communication and its historical development[edit] Over time the forms of and ideas about communication have evolved through the continuing progression of technology. Advances include communications psychology and media psychology, an emerging field of study. The progression of written communication can be divided into three "information communication revolutions": The pictograms were made in stone, hence written communication was not yet mobile. Pictograms began to develop standardized and simplified forms. The next step occurred when writing began to appear on paper , papyrus, clay, wax, and other media with commonly shared writing systems, leading to adaptable alphabets. The final stage is characterized by the transfer of information through controlled waves of electromagnetic radiation i. Communication is thus a process by which meaning is assigned and conveyed in an attempt to create shared understanding. Gregory Bateson called it "the replication of tautologies in the universe. Business communication Business communication is used for a wide variety of

activities including, but not limited to: Companies with limited resources may choose to engage in only a few of these activities, while larger organizations may employ a full spectrum of communications. Since it is difficult to develop such a broad range of skills, communications professionals often specialize in one or two of these areas but usually have at least a working knowledge of most of them. Political[edit] Communication is one of the most relevant tools in political strategies, including persuasion and propaganda. In mass media research and online media research, the effort of the strategist is that of getting a precise decoding, avoiding "message reactance", that is, message refusal. The reaction to a message is referred also in terms of approach to a message, as follows: In "radical reading" the audience rejects the meanings, values, and viewpoints built into the text by its makers. In "dominant reading", the audience accepts the meanings, values, and viewpoints built into the text by its makers. In "subordinate reading" the audience accepts, by and large, the meanings, values, and worldview built into the text by its makers. The modern political communication field is highly influenced by the framework and practices of "information operations" doctrines that derive their nature from strategic and military studies. According to this view, what is really relevant is the concept of acting on the Information Environment. The information environment is the aggregate of individuals, organizations, and systems that collect, process, disseminate, or act on information. This environment consists of three interrelated dimensions, which continuously interact with individuals, organizations, and systems. These dimensions are known as physical, informational, and cognitive. Open and honest communication creates an atmosphere that allows family members to express their differences as well as love and admiration for one another. It also helps to understand the feelings of one another. Family communication study looks at topics such as family rules, family roles or family dialectics and how those factors could affect the communication between family members. Researchers develop theories to understand communication behaviors. Family communication study also digs deep into certain time periods of family life such as marriage, parenthood or divorce and how communication stands in those situations. It is important for family members to understand communication as a trusted way which leads to a well constructed family. Interpersonal[edit] In simple terms, interpersonal communication is the communication between one person and another or others. It is often referred to as face-to-face communication between two or more people. Both verbal and nonverbal communication, or body language , play a part in how one person understands another. In verbal interpersonal communication there are two types of messages being sent: Content messages are messages about the topic at hand and relational messages are messages about the relationship itself. Audiovisual Perception of Communication Problems. It also explores the concept that stuttering during speech shows the audience that there is a problem or that the situation is more stressful. Emotional Intelligence and Triggers. Emotional Triggers focus on events or people that tend to set off intense, emotional reactions within individuals. The Power of Words Verbal communications. It takes into consideration tone, volume, and choice of words. It focuses heavily on the setting that the words are conveyed in, as well as the physical tone of the words. Ethics in Personal Relations. This theory is explored by Dawn J. Liphthrott in the article What IS Relationship? What is Ethical Partnership? Ten Lessons for Negotiators Conflict in Couples. This theory is explored by Amanda Lenhart and Maeve Duggan in their paper Couples, the Internet, and Social Media Barriers to effectiveness[edit] Barriers to effective communication can retard or distort the message or intention of the message being conveyed. This may result in failure of the communication process or cause an effect that is undesirable. These include filtering, selective perception, information overload, emotions, language, silence, communication apprehension, gender differences and political correctness [23] This also includes a lack of expressing "knowledge-appropriate" communication, which occurs when a person uses ambiguous or complex legal words, medical jargon, or descriptions of a situation or environment that is not understood by the recipient. Physical barriers- Physical barriers are often due to the nature of the environment. An example of this is the natural barrier which exists if staff is located in different buildings or on different sites. Likewise, poor or outdated equipment, particularly the failure of management to introduce new technology, may also cause problems. Staff shortages are another factor which frequently causes communication difficulties for an organization. System design- System design faults refer to problems with the structures or systems in place in an organization. Examples might include an organizational structure which is unclear and therefore makes it

confusing to know whom to communicate with. Other examples could be inefficient or inappropriate information systems, a lack of supervision or training, and a lack of clarity in roles and responsibilities which can lead to staff being uncertain about what is expected of them. Attitudinal barriers- Attitudinal barriers come about as a result of problems with staff in an organization. These may be brought about, for example, by such factors as poor management, lack of consultation with employees, personality conflicts which can result in people delaying or refusing to communicate, the personal attitudes of individual employees which may be due to lack of motivation or dissatisfaction at work, brought about by insufficient training to enable them to carry out particular tasks, or simply resistance to change due to entrenched attitudes and ideas. Hence the communicator must ensure that the receiver receives the same meaning. It is better if such words are avoided by using alternatives whenever possible. Individual linguistic ability- The use of jargon, difficult or inappropriate words in communication can prevent the recipients from understanding the message. Poorly explained or misunderstood messages can also result in confusion. However, research in communication has shown that confusion can lend legitimacy to research when persuasion fails. Bypassing-These happens when the communicators sender and the receiver do not attach the same symbolic meanings to their words. It is when the sender is expressing a thought or a word but the receiver takes it in a different meaning. For example- ASAP, Rest room Technological multi-tasking and absorbency- With a rapid increase in technologically-driven communication in the past several decades, individuals are increasingly faced with condensed communication in the form of e-mail, text, and social updates. This has, in turn, led to a notable change in the way younger generations communicate and perceive their own self-efficacy to communicate and connect with others. Though perhaps too new of an advancement to yet see long-term effects, this is a notion currently explored by such figures as Sherry Turkle. If we exercise simple practices to improve our communication skill, we can become effective communicators. For example, read an article from the newspaper or collect some news from the television and present it in front of the mirror.

Chapter 4 : Information system - Wikipedia

The production and reception of oral, written, signed, or gestured information among human beings; involves the use of symbols known as language received through the auditory, tactile, proprioceptive, and visual systems and generated through voice and speech, writing, manual signs, and gestures.

What Is an Information System? Dave Bourgeois and David T. Bourgeois Learning Objectives Upon successful completion of this chapter, you will be able to: Introduction If you are reading this, you are most likely taking a course in information systems, but do you even know what the course is going to cover? When you tell your friends or your family that you are taking a course in information systems, can you explain what it is about? For the past several years, I have taught an Introduction to Information Systems course. The first day of class I ask my students to tell me what they think an information system is. The study of information systems goes far beyond understanding some technologies. Defining Information Systems Almost all programs in business require students to take a course in something called information systems. But what exactly does that term mean? The Components of Information Systems As I stated earlier, I spend the first day of my information systems class discussing exactly what the term means. Many students understand that an information system has something to do with databases or spreadsheets. Others mention computers and e-commerce. And they are all right, at least in part: The first way I describe information systems to students is to tell them that they are made up of five components: The first three, fitting under the technology category, are generally what most students think of when asked to define information systems. But the last two, people and process, are really what separate the idea of information systems from more technical fields, such as computer science. In order to fully understand information systems, students must understand how all of these components work together to bring value to an organization. Technology Technology can be thought of as the application of scientific knowledge for practical purposes. From the invention of the wheel to the harnessing of electricity for artificial lighting, technology is a part of our lives in so many ways that we tend to take it for granted. Each of these will get its own chapter and a much lengthier discussion, but we will take a moment here to introduce them so we can get a full understanding of what an information system is. Hardware Information systems hardware is the part of an information system you can touch – the physical components of the technology. Computers, keyboards, disk drives, iPads, and flash drives are all examples of information systems hardware. We will spend some time going over these components and how they all work together in chapter 2. Software Software is a set of instructions that tells the hardware what to do. Software is not tangible – it cannot be touched. When programmers create software programs, what they are really doing is simply typing out lists of instructions that tell the hardware what to do. There are several categories of software, with the two main categories being operating-system software, which makes the hardware usable, and application software, which does something useful. Examples of application software are Microsoft Excel and Angry Birds. Software will be explored more thoroughly in chapter 3. Data The third component is data. You can think of data as a collection of facts. For example, your street address, the city you live in, and your phone number are all pieces of data. Like software, data is also intangible. By themselves, pieces of data are not really very useful. But aggregated, indexed, and organized together into a database, data can become a powerful tool for businesses. In fact, all of the definitions presented at the beginning of this chapter focused on how information systems manage data. Organizations collect all kinds of data and use it to make decisions. These decisions can then be analyzed as to their effectiveness and the organization can be improved. Chapter 4 will focus on data and databases, and their uses in organizations. A Fourth Technology Piece? Besides the components of hardware, software, and data, which have long been considered the core technology of information systems, it has been suggested that one other component should be added: An information system can exist without the ability to communicate – the first personal computers were stand-alone machines that did not access the Internet. We will be covering networking in chapter 5. People When thinking about information systems, it is easy to get focused on the technology components and forget that we must look beyond these tools to fully understand how they integrate into an organization. A focus on the people involved

in information systems is the next step. From the front-line help-desk workers, to systems analysts, to programmers, all the way up to the chief information officer CIO, the people involved with information systems are an essential element that must not be overlooked. The people component will be covered in chapter 9.

Process The last component of information systems is process. A process is a series of steps undertaken to achieve a desired outcome or goal. Information systems are becoming more and more integrated with organizational processes, bringing more productivity and better control to those processes. Using technology to manage and improve processes, both within a company and externally with suppliers and customers, is the ultimate goal. Businesses hoping to gain an advantage over their competitors are highly focused on this component of information systems. We will discuss processes in chapter 8.

The Role of Information Systems Now that we have explored the different components of information systems, we need to turn our attention to the role that information systems play in an organization. So far we have looked at what the components of an information system are, but what do these components actually do for an organization? From our definitions above, we see that these components collect, store, organize, and distribute data throughout the organization. In fact, we might say that one of the roles of information systems is to take data and turn it into information, and then transform that into organizational knowledge. As technology has developed, this role has evolved into the backbone of the organization. To get a full appreciation of the role information systems play, we will review how they have changed over the years.

IBM Mainframe Copyright: Lawrence Livermore National Laboratory The Mainframe Era From the late s through the s, computers were seen as a way to more efficiently do calculations. These first business computers were room-sized monsters, with several refrigerator-sized machines linked together. The primary work of these devices was to organize and store large volumes of information that were tedious to manage by hand. Only large businesses, universities, and government agencies could afford them, and they took a crew of specialized personnel and specialized facilities to maintain. These devices served dozens to hundreds of users at a time through a process called time-sharing. This software, running on a mainframe computer, gave companies the ability to manage the manufacturing process, making it more efficient. From tracking inventory to creating bills of materials to scheduling production, the MRP systems and later the MRP II systems gave more businesses a reason to want to integrate computing into their processes. IBM became the dominant mainframe company. Continued improvement in software and the availability of cheaper hardware eventually brought mainframe computers and their little sibling, the minicomputer into most large businesses. During the s, many new computer companies sprang up, offering less expensive versions of the PC. This drove prices down and spurred innovation. Microsoft developed its Windows operating system and made the PC even easier to use. Common uses for the PC during this period included word processing, spreadsheets, and databases. These early PCs were not connected to any sort of network; for the most part they stood alone as islands of innovation within the larger organization.

Client-Server In the mids, businesses began to see the need to connect their computers together as a way to collaborate and share resources. Software companies began developing applications that allowed multiple users to access the same data at the same time. This evolved into software applications for communicating, with the first real popular use of electronic mail appearing at this time. Registered trademark of SAP This networking and data sharing all stayed within the confines of each business, for the most part. While there was sharing of electronic data between companies, this was a very specialized function. Computers were now seen as tools to collaborate internally, within an organization. In fact, these networks of computers were becoming so powerful that they were replacing many of the functions previously performed by the larger mainframe computers at a fraction of the cost. It was during this era that the first Enterprise Resource Planning ERP systems were developed and run on the client-server architecture. We will discuss ERP systems as part of the chapter on process chapter 9.

The World Wide Web and E-Commerce First invented in , the Internet was confined to use by universities, government agencies, and researchers for many years. Its rather arcane commands and user applications made it unsuitable for mainstream use in business. One exception to this was the ability to expand electronic mail outside the confines of a single organization. While the first e-mail messages on the Internet were sent in the early s, companies who wanted to expand their LAN-based e-mail started hooking up to the Internet in the s. Companies began connecting their internal

networks to the Internet in order to allow communication between their employees and employees at other companies. It was with these early Internet connections that the computer truly began to evolve from a computational device to a communications device. As web browsers and Internet connections became the norm, companies rushed to grab domain names and create websites. Registered trademark of Amazon Technologies, Inc. In , the National Science Foundation, which governed how the Internet was used, lifted restrictions on its commercial use. The year saw the establishment of both eBay and Amazon. A mad rush of investment in Internet-based businesses led to the dot-com boom through the late s, and then the dot-com bust in While much can be learned from the speculation and crazy economic theories espoused during that bubble, one important outcome for businesses was that thousands of miles of Internet connections were laid around the world during that time. As it became more expected for companies to be connected to the Internet, the digital world also became a more dangerous place. Software written for a disconnected world found it very difficult to defend against these sorts of threats. A whole new industry of computer and Internet security arose.

Chapter 5 : Different Types of Communication Systems

To increase the information system's effectiveness, you can either add more data to make the information more accurate or use the information in new ways. Communication Systems.

Types of Information Systems - Components and Classification of Information Systems

Types of Information Systems - Components and Classification of Information Systems

Introduction An information system is integrated and co-ordinate network of components, which combine together to convert data into information.

Components of information systems An information system is essentially made up of five components hardware, software, database, network and people. These five components integrate to perform input, process, output, feedback and control. Software consists of various programs and procedures. Database consists of data organized in the required structure. Network consists of hubs, communication media and network devices. People consist of device operators, network administrators and system specialist. Information processing consists of input; data process, data storage, output and control. During input stage data instructions are fed to the systems which during process stage are worked upon by software programs and other queries. During output stage, data is presented in structured format and reports.

Classification of Information System In any given organization information system can be classified based on the usage of the information. Therefore, an information system in an organization can be divided into operations support system and management support system.

Operations support system In an organization, data input is done by the end user which is processed to generate information products i. Such a system is called operation support system. The purpose of the operation support system is to facilitate business transaction, control production, support internal as well as external communication and update organization central database. The operation support system is further divided into a transaction-processing system, processing control system and enterprise collaboration system.

Transaction Processing System TPS In manufacturing organization, there are several types of transaction across department. Across which following transaction may occur sales order, sales return, cash receipts, credit sales; credit slips, material accounting, inventory management, depreciation accounting, etc. These transactions can be categorized into batch transaction processing, single transaction processing and real time transaction processing.

Process Control System In a manufacturing organization, certain decisions are made by a computer system without any manual intervention. In this type of system, critical information is fed to the system on a real-time basis thereby enabling process control. This kind of systems is referred as process control systems.

Enterprise Collaboration System In recent times, there is more stress on team effort or collaboration across different functional teams. A system which enables collaborative effort by improving communication and sharing of data is referred to as an enterprise collaboration system.

Management Support System Managers require precise information in a specific format to undertake an organizational decision. A system which facilitates an efficient decision making process for managers is called management support system. Management support systems are essentially categorized as management information system, decision support system, expert system and accounting information system. Management information system provides information to manager facilitating the routine decision-making process. Decision support system provides information to manager facilitating specific issue related solution.

Further Classification An information system can be categorized based upon activity into strategic planning system, tactical information system and operational information system.

Chapter 6 : Chapter 1: What Is an Information System? – Information Systems for Business and Beyond

The nervous and endocrine systems are two forms of communication system in the human body that integrate, coordinate and respond to sensory information which is received by the human body from its surroundings.

Oil on board, Humans have speculated about the origins of language throughout history. The Biblical myth of the Tower of Babel is one such account; other cultures have different stories of how language arose. Some theories are based on the idea that language is so complex that one cannot imagine it simply appearing from nothing in its final form, but that it must have evolved from earlier pre-linguistic systems among our pre-human ancestors. These theories can be called continuity-based theories. The opposite viewpoint is that language is such a unique human trait that it cannot be compared to anything found among non-humans and that it must therefore have appeared suddenly in the transition from pre-hominids to early man. These theories can be defined as discontinuity-based. Those who see language as being mostly innate, for example psychologist Steven Pinker, hold the precedents to be animal cognition, [10] whereas those who see language as a socially learned tool of communication, such as psychologist Michael Tomasello, see it as having developed from animal communication in primates: A prominent proponent of this view is archaeologist Steven Mithen. Researchers on the evolutionary origin of language generally find it plausible to suggest that language was invented only once, and that all modern spoken languages are thus in some way related, even if that relation can no longer be recovered. Theories that stress continuity often look at animals to see if, for example, primates display any traits that can be seen as analogous to what pre-human language must have been like. And early human fossils can be inspected for traces of physical adaptation to language use or pre-linguistic forms of symbolic behaviour. Among the signs in human fossils that may suggest linguistic abilities are: However, a study on *Ardipithecus ramidus* challenges this belief. Some scholars assume the development of primitive language-like systems proto-language as early as *Homo habilis*. Ferdinand de Saussure developed the structuralist approach to studying language. Noam Chomsky is one of the most important linguistic theorists of the 20th century. Linguistics and History of linguistics The study of language, linguistics, has been developing into a science since the first grammatical descriptions of particular languages in India more than years ago, after the development of the Brahmi script. Modern linguistics is a science that concerns itself with all aspects of language, examining it from all of the theoretical viewpoints described above. For example, descriptive linguistics examines the grammar of single languages, theoretical linguistics develops theories on how best to conceptualize and define the nature of language based on data from the various extant human languages, sociolinguistics studies how languages are used for social purposes informing in turn the study of the social functions of language and grammatical description, neurolinguistics studies how language is processed in the human brain and allows the experimental testing of theories, computational linguistics builds on theoretical and descriptive linguistics to construct computational models of language often aimed at processing natural language or at testing linguistic hypotheses, and historical linguistics relies on grammatical and lexical descriptions of languages to trace their individual histories and reconstruct trees of language families by using the comparative method. However, Sumerian scribes already studied the differences between Sumerian and Akkadian grammar around BC. Subsequent grammatical traditions developed in all of the ancient cultures that adopted writing. In the 18th century, the first use of the comparative method by British philologist and expert on ancient India William Jones sparked the rise of comparative linguistics. Early in the 20th century, Ferdinand de Saussure introduced the idea of language as a static system of interconnected units, defined through the oppositions between them. Saussure also introduced several basic dimensions of linguistic analysis that are still fundamental in many contemporary linguistic theories, such as the distinctions between syntagm and paradigm, and the Langue-parole distinction, distinguishing language as an abstract system *langue*, from language as a concrete manifestation of this system *parole*. According to this theory, the most basic form of language is a set of syntactic rules that is universal for all humans and which underlies the grammars of all human languages. This set of rules is called Universal Grammar; for Chomsky, describing it is the primary objective of the discipline of linguistics. Thus,

he considered that the grammars of individual languages are only of importance to linguistics insofar as they allow us to deduce the universal underlying rules from which the observable linguistic variability is generated. Formal theories of grammar seek to define the different elements of language and describe the way they relate to each other as systems of formal rules or operations, while functional theories seek to define the functions performed by language and then relate them to the linguistic elements that carry them out. Cognitive linguistics is primarily concerned with how the mind creates meaning through language. The production of spoken language depends on sophisticated capacities for controlling the lips, tongue and other components of the vocal apparatus, the ability to acoustically decode speech sounds, and the neurological apparatus required for acquiring and producing language. Neurolinguistics and Language processing in the brain Language Areas of the brain. The brain is the coordinating center of all linguistic activity; it controls both the production of linguistic cognition and of meaning and the mechanics of speech production. Nonetheless, our knowledge of the neurological bases for language is quite limited, though it has advanced considerably with the use of modern imaging techniques. The discipline of linguistics dedicated to studying the neurological aspects of language is called neurolinguistics. In this way, neuroscientists in the 19th century discovered that two areas in the brain are crucially implicated in language processing. People with a lesion in this area of the brain develop receptive aphasia , a condition in which there is a major impairment of language comprehension, while speech retains a natural-sounding rhythm and a relatively normal sentence structure. People with a lesion to this area develop expressive aphasia , meaning that they know what they want to say, they just cannot get it out. Other symptoms that may be present in expressive aphasia include problems with fluency, articulation, word-finding, word repetition , and producing and comprehending complex grammatical sentences, both orally and in writing. Those with this aphasia also exhibit ungrammatical speech and show inability to use syntactic information to determine the meaning of sentences. This shows that the impairment is specific to the ability to use language, not to the physiology used for speech production.

Chapter 7 : Language - Wikipedia

6 Components of Human Resource Information Systems (HRIS) A human resource information system (HRIS) is a software package developed to aid human resources professionals in managing data. Human.

Contrasting student and scientific views Student everyday experiences Students will be aware that their body responds to changes in the environment for example, through heat regulation , but may be confused about what causes these responses and how they occur. Students may focus on nerves with particular attention to their feelings, but may not consider them in relation to how the body responds to the environment internal and external. They do realise the speed with which nerves operate with respect to their feelings, for example the speed with which happiness can change to sadness or anger. Students are also often unaware or confused about the nervous system as a whole and the relationship that exists between the different parts of the nervous system the brain, spinal cord and nerves. Driver The human body responds to hormones in a sustained, widespread way. Students will have heard about hormones especially in relation to pimples and the contraceptive pill , but they are likely to be confused about how they function. Their everyday experiences may mean that some students are more familiar with certain hormone functions such as diabetics , than others such as happiness as a result of the actions of endorphins. Students often hear about hormones in the media. For example, they may have heard that chickens are fed hormones and that when humans eat these chickens they are affected in different ways, such as faster maturation of children. However, students have little knowledge of how this may occur. They may also have heard about the use of growth hormone by athletes, though they are likely to be confused about its source or the details of its role. Driver Scientific view Humans have two types of communication systems. These are the nervous system and the endocrine hormone system. These systems regulate body processes through chemical and electrical signals that pass between cells. The pathways for this communication are different for each system. Responses of the hormone system affect cells that are likely to be widely distributed throughout the body, such as the hormones involved in sexual maturation, whereas the actions of nerves are likely to be more targeted. Further information may be sourced from: Neuroscience for Kids Critical teaching ideas The nervous and endocrine systems are two forms of communication system in the human body that integrate, coordinate and respond to sensory information which is received by the human body from its surroundings. In both the nervous and the endocrine system signals are passed from one cell to another by chemical communication. In the nervous system, nerve cells send messages electrochemically: This response is targeted and short lived. In the endocrine system, glands secrete hormones into the blood that travel to the target organs to effect a more widespread and sustained response. They should look specifically at the speed of response and the information carried. Promote reflection on and clarification of existing ideas Teachers should allow students to experience and build their knowledge by experimenting, researching and modelling. It is best to test rapid nerve responses which are particularly needed in case of danger. These responses include reflex responses in the knee and of the eye pupil to light. To extend this part of the activity students can investigate whether these responses can be prevented. Lewis b Endocrine hormonal responses are much slower and sustained for longer. To explore the endocrine system students can produce a large display of the hormone system. Using a large piece of paper, they should draw an outline of a student and fix it to the wall. They draw pictures of the glands, stick each picture to the body outline and attach information about the hormone that is produced. This activity could be extended by researching information on conditions created by too low or too high levels of hormones. They learn what hormones are and which glands release them. They find out which glands regulate bodily functions such as energy levels, digestion, calcium levels, growth and puberty.

Chapter 8 : The Difference Between Animal and Human Communication | Owlcation

Barnett highlights the inseparability of language from man when he says, "Verbal communication is a condition of the existence of human society." But at the same time, other animals also communicate: Your cat may let you know when its hungry, ants use pheromones and sound to indicate social status and distress, bees dance to tell one.

Several operational-level information systems collect and report human resource data. One part of this employee information system is a set of human resource profile records. An employee profile usually contains personal and organization-related information, such as name, address, sex, minority status, marital status, citizenship, years of service or seniority data, education and training, previous experience, employment history within the organization, salary rate, salary or wage grade, and retirement and health plan choices. The employee inventory may also contain data about employee preferences for geographical locations and work shifts. Another part of an employee information system is an employee skills inventory. The skills inventory contains information about every employee, such as work experience, work preferences, test scores, interests, and special skills or proficiencies.

Position Control Systems A job is usually defined as a group of identical positions. A position, on the other hand, consists of tasks performed by one worker. The purpose of a position control system is to identify each position in the organization, the job title within which the position is classified, and the employee currently assigned to the position. Reference to the position control system allows a human resource manager to identify the details about unfilled positions.

Applicant Selection and Placement Information Systems After jobs and the employee requirements for those jobs have been identified and after a suitable pool of job candidates has been recruited, the candidates must be screened, evaluated, selected, and placed in the positions that are open. The primary purpose of the applicant selection and placement information system is to assist human resource staff in these tasks.

Performance Management Information Systems Performance Management Information Systems include performance appraisal data and productivity information data. Performance management information systems data is frequently used as evidence in employee grievance matters. Careful documentation of employee performance and of how the performance was measured and reported is critical to acceptance of appraisal information in grievance hearings. Performance management information can lead to a number of decisions beyond merely supporting the operational decision to retain, promote, transfer, or terminate a single employee.

Government Reporting and Compliance Information Systems Government Reporting and Compliance Information Systems provide information needed both to maintain compliance with government regulations and to improve productivity and reduce costs associated with employees.

Tactical HRIS Tactical human resource information systems provide managers with support for decisions that emphasize the allocation of resources. Within the human resource management area, these decisions include recruitment decisions; job analysis and design decisions, training and development decisions, and employee compensation plan decisions.

Job Analysis and Design Information Systems The information inputs to the job analysis and design information system include data from interviews with supervisors and workers and affirmative action guidelines. Inputs also include information from sources external to the firm, such as labor unions, competitors, and government from sources external to the firm, such as labor unions, competitors, and government agencies. The outputs of the job analysis information system are job descriptions and job specifications. These outputs provide managers with the basis for many tactical human resource decisions.

Recruiting Information Systems To direct the recruiting function, the organization needs to develop a recruiting plan. The plan specifies the positions to be filled and the skills required of the employees for these positions. To develop the plan and to monitor its success, a recruiting information system is necessary to collect and process the many different types of information needed to construct the plan, including a list of unfilled positions; the duties and requirements of these positions; lists of planned employee retirements, transfers, or terminations; information about the skills and preferences of current employees; and summaries of employee appraisals. Other inputs to the recruiting plan include data about turnover rates and about the success of past placements.

Compensation and Benefits Information Systems The Compensation and Benefits Information Systems may support a variety of tactical human

resource decisions, especially when compensation and benefits information is related to information from internal and external sources.

Employee Training and Development Systems The training offered by the employee training and development systems must meet the needs of jobs available in the organization as identified through the position control system and the job analysis and design system. The training should also be directed at those persons interested and capable of benefiting from it, as identified by the skills inventory and human resource files.

Information Systems Supporting Workforce Planning Organization involved in long-term strategic planning, such as those planning to expand into new market areas, construct factories or offices in new locations, or add new products, will need information about the quantity and quality of the available workforce to achieve their goals. Information systems that support workforce planning serve this purpose.

Information Systems Supporting Labor Negotiations Negotiating with craft, maintenance, office, and factory unions requires information gathered from many of the human resource information systems. It is also important that the negotiating team be able to receive ad hoc reports on a very timely basis because additional questions and tactics will occur to the team while they are conducting labor negotiations.

Specialized Human Resource Information Systems Software A great deal of software has been specifically designed for the human resource function. This software is available for all types and sizes of computers, including microcomputers. Software specifically designed for the human resource management function can be divided into two basic categories:

Comprehensive HRIS In the last few years, the software industry has produced several products that organize the various human resource information systems into integrated software referred to as human resource information systems or HRIS software. In general, the computerization of HRIS has resulted in an integrated database of human resource files. Position files, employee files, skills inventory files, job analysis and design files, affirmative action files, occupational health and safety files, and many other human resource files are constructed in a coordinated manner using database management systems software so that application programs can produce reports from any or all of the files. Thus, the human resource management director can produce reports listing likely internal candidates for open positions by running an application program that queries position files, job requirements files, and skills inventory files.

Limited-Function HRIS Numerous commercial software packages are sold for use on mainframes, minicomputers, and microcomputers that are designed to handle one or a small number of human resource functions. Microcomputer versions of these single-function software packages are relatively inexpensive and easy to operate and allow the human resource manager to automate a function quickly and easily.

Training Software Many training software packages are available for all types and sizes of computers to provide on-line training for employees. They include

Management training software Microcomputer training software

Word processing training software These software packages can be used in computer-based training programs designed by human resource department for training specific employees in-group and independent study programs.

A HRIS, which is also known as a human resource information system or human resource management system, is basically an intersection of human resources and information technology through HR software. This allows HR activities and processes to occur electronically.

However, it soon became apparent that many of the problems information systems set out to solve shared certain characteristics. Consequently, people attempted to try to build a single system that would solve a whole range of similar problems. However, they soon realized that in order to do this, it was first necessary to be able to define how and where the information system would be used and why it was needed. It was then that the search for a way to classify information systems accurately began. How do you identify the different types of information system in an organization? The different types of information system that can be found are identified through a process of classification. Classification is simply a method by which things can be categorized or classified together so that they can be treated as if they were a single unit. The classification of information systems into different types is a useful technique for designing systems and discussing their application; it is not however a fixed definition governed by some natural law. One of the oldest and most widely used systems for classifying information systems is known as the pyramid model; this is described in more detail below. How many different kinds of Information System are there? As can be seen above, there is not a simple answer to this. Depending on how you create your classification, you can find almost any number of different types of information system. However, it is important to remember that different kinds of systems found in organizations exist to deal with the particular problems and tasks that are found in organizations. Consequently, most attempts to classify Information systems into different types rely on the way in which task and responsibilities are divided within an organization. As most organizations are hierarchical, the way in which the different classes of information systems are categorized tends to follow the hierarchy. This is often described as "the pyramid model" because the way in which the systems are arranged mirrors the nature of the tasks found at various different levels in the organization. For example, this is a three level pyramid model based on the type of decisions taken at different levels in the organization. Five level pyramid model based on the processing requirement of different levels in the organization What are the most common types of information system in an organization? While there are several different versions of the pyramid model, the most common is probably a four level model based on the people who use the systems. Basing the classification on the people who use the information system means that many of the other characteristics such as the nature of the task and informational requirements, are taken into account more or less automatically. Four level pyramid model based on the different levels of hierarchy in the organization A comparison of different kinds of Information Systems Using the four level pyramid model above, we can now compare how the information systems in our model differ from each other. Transaction Processing System are operational-level systems at the bottom of the pyramid. They are usually operated directly by shop floor workers or front line staff, which provide the key data required to support the management of operations. This data is usually obtained through the automated or semi-automated tracking of low-level activities and basic transactions. Functions of a TPS in terms of data processing requirements Inputs.