

THIRD ANNUAL HUMAN RESOURCES SYSTEMS PROFESSIONALS CONFERENCE

MAY 23—25, **1983**

“THE TECHNOLOGY OF PERSONNEL”

(H.M.BOYD)

HRSP is a professional association of Personnel and computer systems professionals who exchange ideas and information on the application of computing technology to the information and communications needs of Human Resources Management. The Association is 3 years old; however, it has grown to some 600 members of whom about 350 attended this conference.

The conference was structured to include both speakers and optional workshops. Following is a summary of the speakers and workshops that I attended.

ISAAC ASIMOV, one of the most prolific writers, mathematicians, biochemists and geniuses of our time, talked about the impact of our aging world population and the changes that technology will bring about. The world population has increased to a point where population control to slow the birth rate is inevitable; however, as the rate of population decreases and the average lifespan increases, the percentage of older people in the population will increase. Society will begin changing its attitudes toward older people as they become a larger part of the population. Our practice of educating the young in our society has reinforced the attitude that older people can not learn. That attitude is simply not based in fact. We are seeing more and more older folks in learning situations previously reserved for the young - such as the great number of older people going to college or learning new skills. Nature allows life to survive by maximizing what it does best. Man has only the ability to learn and to think that has allowed it to adapt to its' environment - learning and thinking are what we do best! To think that older folks can't learn anymore just isn't logical.

The computer age will make it possible for education to be available in every home in a manner that is suited to each individual. As education becomes more enjoyable children will grow up with positive learning experiences that will enable them to continue the learning process as a part of their life experience instead of one that they perceive as ending when they become adults. Robots will do more jobs in the future because they can do them better, faster, cheaper, etc.. The displaced~ worker may never find another job because he has lost both his ability to learn and his interest in learning. The human tragedy is that people can be creative in their own way if only you let them.

*The Challenge for the Human Resources People is to get people to learn what business wants them to learn ! Computers should be the expanders of human options that may cause the transition of the human race into adulthood by the year 2000. In the workplace HRM people are the guides for this transition. They must be prepared to integrate the adult human race with the human work needs of the 21st Century. The difficult task is clearly going to be to prepare HRM professionals to be mentally and knowledgeably equipped to be the needed guides of the new learning and creative worker.

Dr Asimov used a favorite story to point out how quickly we have our perceptions fixed: One day he took his car to his favorite Mechanic who always delighted in the fact that the highly educated Dr Asimov with the 160+ IQ was absolutely incapable of learning to determine how his car functioned and what was wrong with it when it malfunctioned. The mechanic also delighted in telling jokes to Dr Asimov who always laughed at the jokes - mostly to maintain a positive rapport with the mechanic so that he would fix the car. On this particular day the mechanic told a story of a deaf and dumb man who went into a hardware store to buy some nails. The man had considerable difficulty in communicating to the clerk what it was that he wanted to buy. First he banged on the counter as if he were holding a hammer — to which the clerk got a hammer. The man then held his fingers together as if he were holding a nail and banged at it with the hammer. He then put down the hammer and pointed at his fingers where the nail would have been held if he had been hammering a nail. The clerk finally understood and got the nails. The man paid for the nails and left the store. Later a blind man came into the store to buy a pair of scissors. Now the mechanic asked Dr. Asimov if he knew how the man communicated to the hardware store clerk that he wanted a pair of scissors. Dr. Asimov said yes and proceeded to make a scissor of the two fingers on his right hand and moved them to simulate a pair of scissors cutting. The mechanic laughed and said no — the blind man had gone into the store and said to the clerk “may I please have a pair of scissors?” He was blind, not deaf and dumb. Dr Asimov asked the mechanic if he had caught many

people with that joke? The mechanic replied that he caught about 50% of the people to whom he told the joke; but that he had been confident that Dr Asimov would get caught. As Dr. Asimov pointed out, we often overlook the obvious.

DR. ALPHONSE CHAPANIS is known as the father of Human Factors Engineering. He feels that we are very rapidly becoming an "Information Society" based on a phenomenal amount of information that has been collected and analyzed by John Hopkins University, Bell Laboratories and the Office of Naval Research. We are becoming a Technological Society instead of an industrial one. It's the same kind of transition that we made from an agricultural society to an industrial one. Some of the trends include more white collar workers than blue collar workers. As more jobs become white-collar the skill levels of people using machines is decreasing. Computer user technology must be brought to the level of the average (in intelligence and training) person. One of the existing problems is that the average persons' ability is considerably less than the developers of systems appreciate. The impact of lower level skills is that easier to use, self-instructing, intelligent computers, word processors, etc. are becoming a necessity. To measure ease-of-use of a system the following must be considered: (1) The user — for whom the system is intended; (2) the tool itself; (3) the tasks that the system is to perform; (4) the work environment in which the system must operate. There is currently no easy way to use computers. Existing figures are that 10 million workers currently use a VDT of some sort. NIOSH is investigating a significantly high number of health complaints (the greatest number of complaints are gastrointestinal and emotional). As the rate of automation of American industry increases workers will have to think more due the growing complexity of the machines that they use. Human work is becoming more abstract and human effort is becoming harder to measure. One caution that Dr. Chapanis postulated is that computers will become the "BIG BROTHER" of our society if we use them to measure and evaluate human performance.

DR. LANCE MILLER (Manager, Language and Knowledge systems at IBM's Watson Research Center) spoke about IBM's involvement in linguistic, human factors, and computer language research. Focusing on the emerging technologies for the office he spoke about their concentration on the voice and text communication needs of the Professional. The primary amount of time that a professional spends is on VOICE communication. IBM wants to address the professional's needs in 3 primary areas: (1) Procedure handling; (2) Written Text ;and (3) Natural Communications (person—person; voice; voice storage; text and graphics). Dr. Miller talked about some of the currently running systems: Speech store and forward message systems; Speech Recognition systems that have 1000 — word vocabulary continuous speech capability with excellent accuracy; Speech synthesis capabilities that are getting better at differentiating between sounds, etc.; Handwriting recognition systems (reading written text into a system instead of typed text) that are currently 90% accurate with a projection of 99% accuracy within 2 or 3 years; and Text—Critiquing systems (IBM's "EPISTLE" program) that will do synopses, highlighting, distribution, indexing, punctuation, grammar, style, tone, etc.. The key element in all of these systems is the ability to utilize highly sophisticated knowledge based software languages and very high speed processors.

GEORGE COLONY is Director of Office Systems Research for The Yankee Group. He addressed the "Office of the Future Technology" in great depth with the primary technological emphasis on communications as a primary factor in the success or failure of the many vendors trying for a share of the office automation marketplace. The keys to office systems in the future, he feels, will be Communications, Networking and Telephony. The office systems sales are projected to reach \$12 Billion by 1986. By the year 1990 IBM projects that 1/3 of its sales (\$19 B) will be of office systems. Personal Computers will create and drive the office systems market demand. They will be the front—end that makes computing a part of the professional's work environment. The vendors that Yankee Group sees as the key players are IBM, DEC and WANG. The reason is that they are the best—positioned strategically and technically to offer integrated information and communication systems.

Without the type of information integration and communications capability that's shown below, Yankee doesn't believe that a vendor will be able to meet the user needs of the office systems market.

- COMMUNICATION PROCESSOR > to outside world (SNA, X.25, PBx)
- LOCAL NETWORK <> to other machines & databases
- UTILITY PROCESSOR > local office minicomputer
- LOCAL NETWORK
- ADVANCED PERIPHERALS > optical readers, voice, etc.
- LOCAL NETWORK I
- USER WORKSTATIONS > personal computers, computer—phones, etc.

Part of their vision includes:

- —The use of computer phones instead of terminals (or PCs) by Mgrs and Executives.
- —Hybrid systems environments(using several different ones)
- —Traditional EDP will become a resource as opposed to an applications oriented function.
- —A greater (at least over the next decade) move toward single— vendor integrated systems for a whole company.(IBM is about to announce a 370 instruction set for its' PC which means that there will be a capability for the PC and 370(mainframe)machines to work together.
- —User demand will create a distributed database environment within 5 years.

Their analysis breaks the vendors into four major categories:

1. INTEGRATORS: IBM, DEC ,WANG ,BELL
2. CHALLENGERS FROM ABOVE: (mainframe & minis)HP, Burroughs, Prime, DG Honeywell
3. CHALLENGERS FROM BELOW: (word processors, PCs) Raytheon Lanier, Xerox ,Apple
4. CHALLENGERS FROM COMM. Companies: Rolm, Northern Telecom, ATT, NEC, Harris

He evaluated the “Integrators” as follows:

IBM: —Common query language(distributed data bases)
—common communications links (SNA)
—expansion of bridges(communications between products)
—dominance of marketplace at workstation level(50% of all sold to Fortune 1500 companies last year)

WANG: —to succeed they must have a greater communications focus
—building a Wang environment via WANGNET
—WANGNET is too sophisticated for the market of the next 5 years
—greater emphasis on computing (a VS WANG mini) to meet the utility processor demand
—the ALLIANCE system is easy to use
—WANG PC evaluated by John Hancock Ins as better than either the DEC RAINBOW or IBM's PC

DEC: —High price/performance clustered systems
—the PROFESSIONAL 350 Has been a disappointment (lack of software)
—systems interconnect structure
—hybrid local area networks
—a full 32—bit environment(mentioned “SCORPIO” by name)
—compatible architectures

AMERICAN BELL:—PBX upgrades into office automation
—single operating system (UNIX) for whole system

The dynamics of the professional(personal)computer market are projected

- —growth rate of 60% per year
- —1982 will end up with \$6 billion in shipments
- —the main area of growth will be in the office
- —1983 & 1984 will be the “technical” years. Vendors will be developing their integration capabilities
- —the two major user considerations will be compatibility and communication

IBM is announcing a “home” computer this fall that will be made in Japan. Their intent is to enhance market position by anticipating the “work at home” movement.

SHORT NOTES ON SOME OF THE OTHER SPEAKERS AND WORKSHOPS I ATTENDED:

“MICROS, DATABASES AND NETWORKS”

General Foods in White Plains has 600 Personal Computers installed. 350 of them are at the Corporate Headquarters. They have found that PC users don't generally want to develop applications; they want programs that will give them a very high level capability to build files, manipulate data and communicate with other machines and users. They have developed an “Access Center” within their MIS Group that is responsible for: training end—users, technical consulting, a Graphics Center, troubleshooting, data access, user communication and administration for the PC users. The center has been very successful so far.

“H R SYSTEMS BASICS”:

Bechtel Corp's Personnel Information Systems & Procedures manager— Sid Simon, defines the function as a tool to support Company H R Information processing and decision making needs. The measurable benefits are data consolidation, access, efficiency, modeling capability and communications. They have a traditional setup, it seems; and anticipate maintaining a centralized data base in the future.

“STAFFING AND SUCCESSION PLANNING”:

Andrew Merryman of Brecker & Merryman, Inc. discussed Succession Planning, Management Staffing and Management Development at some length. Two conclusions were offered along with some strategies for addressing the needs: 1.. There will be increased business penalties for inadequate management resource planning. 2.. The focus must be on future requirements.

ALBERT ANGRISANI, Assistant Secretary of Labor & Training (DOL), is responsible for a \$32 billion training program and offered the following insights:

- —There are critical skill shortages at the same time that there are great numbers of unemployed people willing but unable to find work.
- —33 Million American adults are functionally illiterate.
- —SAT scores are lower today on the average than they were 26 years ago.
- —At least 5000 blue—collar jobs are lost to automation every month
- —The contrasts in our society are increasing rapidly.

ROGER FISHER, Professor of Law at Harvard Law School, is one of the most respected authorities on “THE ART OF NEGOTIATING”. He has been principally involved in the Israel/Egypt, Iranian Hostages, Falkland Islands and numerous other well—known negotiations of our time. The following is a synopsis of his condensed delivery of his Negotiating seminar.

There are essentially only three tests of success for negotiating:

- 1..Is it EFFICIENT?
- 2..Is the outcome of the negotiation a WISE one?
- 3..What is the impact of the negotiation on the RELATIONSHIP?

In the business environment the dominant style of negotiating is the hard style (see negotiating approach comparison below).

NEGOTIATING STYLE APPROACH COMPARISON

SOFT—Bargaining

- Participants are friends
- The goal is agreement
- Make concessions to cultivate the relationship
- Be soft on the people and the problem
- Trust others
- Change your position easily
- Make offers
- Disclose your bottom—line
- Accept one—sided loses to reach agreement
- Search for the single answer: the one that “they” will accept
- Insist on agreement
- Try to avoid a contest of wills
- Yield to pressure

HARD— Bargaining

- Participants are adversaries
- The goal is victory
- Demand concessions as a condition of the relationship
- Be hard on the people and the problem
- Distrust others
- Dig into your position
- Make Threats
- Mislead as to your bottom—line
- Demand one—sided gains as the price of agreement
- Search for the single answer: the one that “you” will accept
- Insist on your position
- Try to win a contest of wills
- Apply pressure

While the hard style in business is dominant, it is also contagious. It almost demands that the other side become hard style also. It also may have an adverse impact on future negotiations (relationships).

Hard style is also reinforced behavior when the negotiator “wins” since winning is a reward in itself in business.

The following represents a good set of guidelines to use when negotiating:

1. DIAGNOSE the relationship and the content of the issues.
2. Don't use relationships as a negotiating tool (i.e.: "if you do X, I'll love you, accept you, etc.)
3. DISCERN the difference between "POSITIONS" and "INTERESTS". Usually positions support interests. Try to meet the needs of the interests instead of positions. Don't argue about positions - they have a way of becoming inflexible then. UNDERSTAND their INTERESTS: try to put yourself in their shoes(develop a plus & minus list for their interest and their position from their standpoint).
4. SEPERATE BRAINSTORMING (option development discussions) FROM DECISION MAKING (entail a commitment)talks. The risk is that brainstorming discussions can be perceived as implying a commitment.
5. Withhold negative inputs(especially judgments) during brainstorming sessions. Judgment inhibits creativity.
6. Positional Negotiating ("I will" or "I won't" do or accept "X") is usually like playing "chicken". It is better to negotiate what you "ought" to do. That better addresses the interests than the positions. Information becomes a powerful resource in this type of negotiating. What you "ought to do" is measured by standards independent of the will, interests or positions of either side. One method is to ask "what is wrong with X?" in order to eliminate the elements of an agreement that don't meet the interests of the parties. FOCUS on INTERESTS!

There are several negotiation tools that give power to the negotiator:

- Knowledge and information
- Relationship(trust & communication——Keep promises! don't make many so that each is more valuable.)
- Have a best alternative to a negotiated agreement that you can accept. Keep improving the best alternative during the negotiations.
- Propose a good solution to the negotiation that is viable and acceptable to the interests of all parties.
- Legitimacy(based on objective standards)of the interests
- Commitment(ability to agree, accept or reject)
- Negative Commitment("I will" or "I won't" ability)

Negotiating in any sphere of human interface (marital, governmental, business, etc) is a learned skill. The preceding, hopefully, will add some thoughts for improvement.