1994

Reynolds Metals Company: communication system automation

Andy Hellman
University of Richmond

Recommended Citation

Reynolds Metals Company:

Communication Systems Automation

by

Andy Hellman

Senior Project

Jepson School of Leadership Studies

University of Richmond

Richmond, VA

April 1994

My Last Leadership Paper!!!

Subtitled: Reynolds Metals Company: Communication Systems Automation

Andy Hellman
4/20/94
Ldsp Senior Seminar

Information Systems Automation: Empowerment of the 90s

I. Background

In the summer of 1993, I first began my relationship with Reynolds Metals Company in Richmond, Virginia. It was at that time that I received an internship with the Executive Vice-President for Human Resources and External Affairs, a man by the name of Don Cowles. At this time, Reynolds was under the leadership of a new CEO, Dick Holder, who had been in his position for around a year or two. Additionally, the aluminum industry at this time was very depressed due to the large quantities of raw materials that had flooded the world market after the Soviet Union collapsed. Prices were way down for aluminum and all the major aluminum companies were having problems. Reynolds sought a solution which had been tried before in other companies and had succeeded in some and had not in others--they implemented TQM, a process which seeks to empower employees to make them more productive.

When I first began with Reynolds in May of 1993, Reynolds had been undergoing the TQM transformation for

about 1 year. Furthermore, Don Cowles was also very new in his position. Until a few months before, he had been the head of the law department for Reynolds. Due to these factors, Reynolds was undergoing many changes which reached down to the very corporate culture. Before this time, the Human Resource department was viewed as a cost. It was necessary to have the department but it did not add value to the company. Several employees with whom I talked felt that the CEO before Holder had the opinion that the greatest expense to the company walked in every day on two feet and prompted some to say that his optimum staffing level consisted of "Burke and a clerk."

Don Cowles' predecessor had not taken a very strong leadership role in the Human Resource area. Don sought to change that. In his words he sought to make Reynolds' Human Resources 'world class'. He wanted his department to be a strategic asset to the company, one which was cost-justifiable and added value. Reynolds was ready for change and Don was ready to change it.

All of this formed Reynolds into a ripe environment to study and ponder leadership. Here was a typical American company that arguably was struggling to survive. On top of that, there was a leader who was new in his position but was very eager to change things, even though some around him were not. In this setting I could study the change process in large companies, the process where an idealistic person seeks

to induce change but at the same time must not press to hard or he will be ignored.

For all of these reasons, I sought to formulate a senior project at Reynolds Metals Company--it was an excellent setting and I had a good relationship with many people there.

Having decided this, I talked to Don on a number of occasions to discuss possible projects. These projects ranged from working on their employee development program, how to involve Human Resources in the strategic planning process, compliance program development, and a number of others. However, we ended up deciding upon a project dealing with electronic communication, more specifically bulletin board systems. At this time, Don had appointed Denise Brewer as head of automation at the corporate level and I was tasked to assist her in my project. Denise had been appointed to her position because Don had realized the need for an improvement in the way people communicated and the way work was done.

Reynolds typified American companies in many ways. Different departments tended to be very delineated and there was not as much inter-departmental communication as there could have been. Some work was still done by hand that could be done much faster and more efficiently electronically. For example, a query as to the benefits of one's pension had a 6 week turnaround time. If all the information was automated, the turnaround time could be near instantaneous.

Many of these time-consuming tasks could be automated and would save the company money if they were. Sometimes different plants would run into problems and would each spend the time and money to find a solution--if they communicated more effectively, they would eliminate this redundancy. Therefore Denise's task became to decide what was the best and most effective way to automate the communication and workflows at Reynolds.

Denise's task was a very difficult one. Reynolds had very limited automation at this point and time and what they did have was very fragmented. Furthermore, it would be difficult to justify spending money on new equipment because of the financial difficulty of the company. Over the past 6 years, the Human Resources staff had been reduced from around 300 people to only around 150 thus increasing the importance of empowering people and making them more effective in their jobs. A number of other factors further complicated Denise's task. Reynolds Metals Company has about 20,000 employees domestically and another 10,000 international employees with this number growing. Of the domestic employees, they are located in about 120 different places in almost every state with offices ranging from about 5 people to about 2000. Some offices do not have a single computer--even corporate headquarters is not fully computerized. The computer networks that do exist are often very limited. There is no comprehensive inventory of what

hardware exists. Also, there is no standardization for software and applications nor any record of who has what. So as one can see, Denise has quite a challenge, and she could use some help. This is were my project comes in.

II. Defining the Task

Don talked to Denise about my helping her out and then put me in contact with her. I was to assist her in her project. In the beginning, we struggled somewhat with defining my task. At first my assignment was along the lines of forming a proposal for implementing some sort of bulletin board system or other electronic communication system and with this a plan for implementation. If all went well, implementation was to begin before I left at the end of the semester. This task would entail several leadership concepts. The first would be the use of communication in leadership and the ramifications it would have on employee empowerment. Secondly would be how to research and formulate a proposal on a 'soft issue' such as this. In other words, how do you assess what an employee's communication needs are and how do you cost-justify something of this sort? Lastly, how do you implement this? This last issue involves a number of smaller issues such as how do you get the leaders to set the example? Do you have to have senior management use the system to implement it? How do you cause the cultural

change necessary to make a communications system be utilized fully and effectively?

As I began my task, I quickly came to see that it was highly unstructured and somewhat beyond my abilities at that time. Furthermore, after talking with Don about my task, it also became somewhat clear that in the short time I was going to be at Reynolds Metals Company, I was not going to accomplish all of those tasks and answer all of those questions. Therefore, Denise and I set up a meeting during which we would 'critically think' about my task and hopefully better define it.

After this meeting, we realized that my task would have to be shaved down somewhat and it was reworked so that my task became to research communication systems and formulate some recommendations as to what should be done at Reynolds Metals Company.

In order to better define how I was to go about my task, Denise and I listed a number of different things that I should do. Among the main list of action items for my task were:

- contact Human Resources professional organizations to gather information
- formulate a survey to send out to companies to gather information
  interview a number of people within Reynolds Metals Company Human Resources to assess their needs
- talk to consultants and arrange some presentations on

automation

- talk to Reynolds Automation Center people about what can be done at Reynolds with what equipment we have now

This list took me in a number of different directions and I was still somewhat confused as to the focus of my task. Therefore, from this list we distilled three main tasks for me. The first was to conduct a needs assessment at Reynolds Metals Company. Secondly I was to do a best practices survey. Lastly, I was to take the first two tasks and figure out where Reynolds Metals Company should be and what needed to be done to get there. By defining the process in terms of three main tasks, I gained direction in my project. Furthermore, it allowed me to both prioritize my agenda and also to put them in rough chronology.

I shall now detail and discuss each of these three tasks individually.

III. The Actual Tasks

The first part of my task was the needs assessment. Denise and I formed a list of people that we should get feedback from. The list had ten people and ranged within Human Resources from the head of the Human Resources department, Don Cowles, to two people who currently work at the plant level, Jim Gianforte and Bob Tanner, and Susan

Corley who just switched from plant to corporate. Additionally, O.U. Maiden, who is head of Corporate Industrial Security, and Dr. Woolly Doane, the Company Medical Director, were placed on the list of people to get feedback from. By having a list of people from a number of different levels and functions, we hoped to gather a comprehensive view of what was needed, not just the perspective of the managers saying this is what I think my employees need.

Along with forming this list, I decided on a very open ended interview to get the most information possible from people and not constrict their answers. After explaining the purpose of the interview, I posed each person the basic question, "What type of electronic communication system, and/or bulletin board system would help you be more effective at your job?" and also, "What type of things would you like to see on a bulletin board system?" In every case, asking this one question generated ample response from the person. It would be very space consuming to detail every interview in the body of this paper. However, it will be helpful to highlight important thoughts from each to gain an overall perspective of the feedback that was gathered.

Don Cowles, 3/22/94:
- allow Human Resources professionals to network
- network people within Human Resources with those outside Human Resources
- make people more integrated in day-to-day

developments across the company

- stimulate mutual development

- share best practices

- give employees control of their own data

O.U. Maiden(Linda McLean also in attendance), 3/25/94:

- be able to communicate across company

- eliminate paper memos

- automation in company is very unorganized--hard to get things done--streamline it

- communicate both nationally and internationally

- communicate within HQ complex to create a better image for industrial security

- goal--involve employees in security, educate them because their involvement is needed--increased communication is the key

Wooly Doane, 3/25/94:

- top priority is electronic mail and bulletin boards

- electronic mail would save time playing 'phone tag'

- fewer memos--free up secretaries

- 2 items would have most impact(based on GE workout model)

      1-taking work out of work

      2-getting work out

Bob Newman, 3/29/94:

• can pass on new ways of doing things

• expand coverage of informal communication networks

• concerned it can get too cluttered

• are bulletin boards the right way to go?--define the problem first and then find the answer

• use to involve more plant people in teams

Irene Jacobson, 3/29/94:

• can be used as a means to ask questions and get answers

• use to share successes, problems, major issues, etc.

• can be good to eliminate mail but people have to have access to the system

Jim Gianforte, 4/6/94:

• job postings for everyone

• communicate best practices

• inputting simple record changes

Gary MacDonald(Pat Phillips & Will Hetzel also attending), 4/6/94:

• electronic mail for meeting notices

• use to send focus questions to field and get responses

• use to distribute surveys to employees

- bulletin board for what teams are out there, allow one to send info and ideas to a team
- possibly use to contact outside people, i.e. consultants, etc.

Susan Corley, 4/7/94:
- with bulletin boards and electronic mail, would instill a sense of oneness
- communication at will throughout the company
- expand formal communication network
- first and foremost is time savings
- sometimes a major event in one's life will cause one to want to see right away what coverage they have(e.g. if there is an accident, a person will want to know right away their medical coverage), automating this information would allow that

LouAnn Nabhan, 4/15/94:
- news information
- executive information--allow for a better understanding of company to lower level employees
- could cascade information from top to bottom
- get information to people that need it for their job, i.e. marketing people preparing reports
- explain company issues to employees
- can change business of PR department

• speed of communication is an issue--this makes things faster
• what type of information is provided and when it is provided lead people to conclusions about their role in the company

(Bob Tanner had not been interviewed at the time this paper was written)

This roughly 3 pages summarizes over 15 pages of very hastily jotted notes as people expressed their viewpoints.

A lot can be gained from analyzing these interviews. First, while people of course expressed different things depending upon their jobs and positions, there was also a lot expressed that was common throughout. Almost everyone expressed the need for better communication from corporate headquarters to the rest of the company. Often they mentioned the need to involve people at the plants more closely with what is going on at corporate headquarters. Along with this, a number of people felt that sharing 'best practices' would be beneficial. They wanted to be able to communicate ideas that would save people time and money and perhaps solve the problems that other people may not yet have found answers to.

There was a large amount of response concerning eliminating paperwork and saving time. From both personal

experience and these interviews, it is often very frustrating and time-consuming playing phone tag and electronic mail would be a means of reducing this. Additionally, a number of people complained of the copious amounts of paperwork that are generated at Reynolds Metals Company. By storing and handling documents electronically, this paperwork would be reduced.

This can all be summarized by saying that people want a system that will allow them to communicate more information with more people more efficiently.

While for most people, it was not an explicitly stated goal, an underlying theme of employee empowerment surfaces from these interviews. When one person mentioned sharing successes, they are talking of changing company culture so that employees are rewarded when they do things right which encourages them to take the initiative. In effect, this is forming learned hopefulness--showing employees that they have control. By communicating with them more, they are being provided with the information necessary to be more effective in their jobs. This passes on the message that the employee is trusted and management knows the employee wants to do well if management will just give them what they need to get the job done. This again shows the desire to empower the employees. A couple of people wanted job postings for the entire company to be on the bulletin boards. This would allow each employee to seek out the most fulfilling

job and to match their own skills with the job descriptions. By doing this, the maximum potential of each employee would be reached, again empowering them. Lastly, by using it to obtain feedback from employees, management is communicating their interest in employee views, in showing the employee that they are important. This also empowers the employee psychologically. LouAnn Nabhan expressed it well when she said, "What type of information is provided and when it is provided leads people to conclusions about their role in the company." Everyone interviewed expressed a desire to communicate more, better, and faster with more people which leads one to the conclusion that managers want to empower the employees but need a way to do so.

Now that we have discussed the needs assessment, we shall turn to the best practices survey.

The best practices survey was done in two parts. First, a survey was sent out to a number of companies and secondly, several consultants were contacted.

Formulating the survey that was sent out to different companies took a large amount of critical thought. To begin with, we had to decide which companies that we should send the survey to. We wanted to find companies that were leaders in human resources and would most likely employ the so-called 'best practices'. We obtained names from two places. First, during my internship I had researched companies that were 'world-class' in the Human Resource

field and had a list from that. A number of the companies on that list were found through lists of Malcolm-Baldridge Award Winners. Secondly, I used the membership listing of Human Resource Systems Professionals to gain additional company names. We compiled a list of 18 companies which ranged from IBM to Levi Strauss and covered many different areas of industry.(see appendix A)

After forming this list, we formulated the survey. Originally, the process was that I would contact each of these companies by phone and question them to ascertain if the company was 'matched' to Reynolds Metals Company. A number of factors were considered in company matching. They fell into two areas: organizational and cultural. Organizational issues centered around how centralized the company was, how centralized Human Resources was and reporting relationships for different departments. Cultural issues dealt with whether they had implemented TQM, how communication flows in their company, and several other items. If a company was matched to Reynolds Metals Company, then I would ask if I could fax or mail a survey for them to complete. This survey contained a number of open-ended questions concerning that companies use of electronic communication.(see appendix B) Unfortunately, after calling about 10 of the companies, I had yet to reach a living breathing person--all I had reached was voicemail. Because of this, we revised our approach. We realized that it would

take forever for me to get in touch with these companies and that they would most likely not have enough time to fill out the survey in any useful manner. So we devised a new survey that would both match the company and be easy to fill out in little time--we used fill in the blanks. The first 4 questions were designed to match the company and the remaining 3 were designed to reveal what systems were used at that company and what effect they had.(see appendix C) If the company was a match and it used electronic mail efficiently, then we could follow up on that contact for more detailed information if we wished.

The surveys were sent out during mid-March and by the first week in April only 5 had been returned. I then placed a call to each company that had not responded and either spoke to someone asking them to please take the time if they could or I left a message to that effect. By mid-April, we only had 7 total responses(Air Products and Chemicals, Ford Motor Co., Advanced Micro Devices, Whirlpool Corporation, Xerox Corporation, Johnson and Johnson, and Federal Express). Still the information that was collected from them is interesting and somewhat useful. Appendix D is a survey which lists the number of responses each blank received. Any written comments are not on this survey. It must be noted that some respondents for various reasons left some questions unanswered or may have answered more than once. Unfortunately, at the time of writing, it has not been possible

to match the respondents with Reynolds Metals Company. However, there is large variation in the company structures, especially in the Human Resources department yet the reporting relationships were all the exact same with one exception where part of benefits reports to one department and part to another department. Of these respondents, every company had implemented TQM to some extent. This could reflect a true desire to empower employees, or could also be a management attempt to cut costs without really caring about employee empowerment. Of the various systems, facsimile and computer networks both had 5 respondents using them very frequently. Electronic mail and voicemail both had 4 very frequently responses. Interestingly, Ford Motor Company had its own television network with professional newspeople on it. Electronic mail and voicemail had the highest success with 5 respondents answering 'yes' or 'somewhat' in response to that system accomplishing the goals that were set for it. More companies had empower employees as a goal for computer networks than they did for any other system(3) and voicemail and interactive voice response both received two votes there. Voicemail, facsimile and computer networks all had 7 responses indicating that their goal was to make employees more efficient. Electronic mail, non-interactive bulletin boards, computer networks and facsimile all had 4 responses for increasing communication between divisions.

Overall, it is hard to draw many good conclusions from the responses. To begin with, only 7 of 18 companies returned the survey. While all of these companies may be world-class in Human Resources, it is very difficult to discern differences in responses. Even if one answer may have received the most votes, all the other answers may have received only 1 less vote so it is difficult to decide if one response is truly better. Additionally, without following up on the responses, it is impossible to gain a good understanding of what the real effect and impact of the implementation of certain systems was. The only real useful results that can be drawn from the survey that was sent out are first of all that most Human Resources departments tend to have the same reporting relationships. Secondly, most of the 'world-class' Human Resources departments are in companies that have implemented TQM to some extent. Lastly, most companies use some type of system frequently with bulletin boards and interactive voice response being the most infrequently used and electronic mail, facsimile, voicemail and computer networks being used the most.

Hopefully more surveys will be returned before the end of this project. However, with only 18 being sent out the response rate is roughly 40% making it difficult to say anything definitive about what Reynolds Metals Company might want to do. Still, we plan to do the company matching

and possibly contact a few companies to obtain more detailed responses.

Federal Express in addition to returning their survey also sent an article which had been published in a professional journal regarding their Human Resources information systems. Federal Express is regarded by many as being perhaps the most advanced in terms of automating their information systems and empowering employees through communication. Their system is called PRISM and is available to every one of their 90,000 employees worldwide. Just about anything can be done on the system from applying for jobs, changing benefits packages, giving raises to employees, getting training and much more. Their system perhaps represents the ideal system and Federal Express is constantly looking for new technology to improve their system. However, just because theirs is the best does not mean Reynolds Metals Company wants to emulate it. What is right for them may not be right for Reynolds Metals Company. This ties in to the second part of the best practices assessment.

In order to see what can be done for a company like Reynolds Metals Company, I contacted several consultants. The company that I dealt most extensively with is Essense Systems which markets a system called Enterprise Self-Service. They define this system as "the integration of systems, technology, procedures, new business processes and new behaviors by which employees on their own behalf, and

managers on behalf of their direct reports, can access, model, and act upon information directly, <u>without</u> the need for staff intervention, training, documentation, or system(s) know-how." I talked extensively on the phone with Dan Katavola, their person responsible for our region. I gave him large amounts of information concerning Reynolds Metals Company's structure, culture and present capabilities. Additionally, we arranged a presentation by Essense for many of the important people in Human Resources and some other areas.

Dan Katavola and his supervisor(he was new on the job at the time) flew down to Richmond for the presentation and met with myself, Denise Brewer and Bob Newman before the presentation. During this meeting, we discussed some of the possibilities of the Essense systems, but also the consultants seemed to spend some time establishing their credentials by describing their backgrounds and also by talking some of their work with other companies. During the presentation, they gave a very detailed explanation of the capabilities of their system. It used windows based PCs and touch-screen kiosks to network and automate. In many ways it sounded very similar to the system of Federal Express, at least in its capabilities. However, the Essense system if completely implemented would very likely cost many millions of dollars to implement over a multi-year timespan. Still, the system

they presented was very impressive and supposedly was cost-justifiable.

Several other consultants were asked to send information to us. Most of this centered around a more limited Essense type system or interactive voice response. However, all of these contacts were mainly information gathering attempts.

Overall in the best practices assessment, there seems to be virtually no limit to what is possible. Every idea or suggestion that was gathered in the interviews is completely possible using technology that is several years old at least. However, there is great disparity between what people need at Reynolds Metals Company and what can be done. Therefore, it is very important to assess what is really needed at Reynolds Metals Company and what needs to be done to get there.

To do this, we must first discuss what Reynolds Metals Company has right now and what its capabilities are.

To begin with, as was mentioned earlier, not everyone at Reynolds Metals Company is linked electronically. Many people do not have computers and many of those that do are not networked. Reynolds Metals Company does have EMail with worldwide access but there are only about 4000 users out of 30,000 employees, only a little more than 12%. Only about 600 PCs are truly networked. There is also a problem of compatibility both between platforms and between

applications. Reynolds Metals Company has three different platforms from a mainframe to PCs. Different departments and divisions have different communications programs which are not always compatible with each other. This is also true of other applications such as payroll and accounting systems--each division or plant may have its own system which is not compatible with other systems. Therefore there exists two main problems. The first is that there is obviously not enough hardware to go around. While everyone may not have to have their own PC, there should definitely be at least 1 per plant. Secondly, there is a major problem of compatibility between departments, divisions and plants. In order for implementation of some system to be effective, these two critical factors must be addressed.

IV. Proposal for Automation

Specific proposals for automation follow three prongs.

First, any system should be computer based. The other option is using a phone based system but a frequent complaint in the interviews was the time wasted playing phone-tag. Additionally, phone-based systems are very limited and will not satisfy many of the needs expressed in the surveys such as putting publications online, sharing best practices and asking questions and providing answers. Therefore, any system should be computer based.

Secondly, guidelines should be issued which would specify which products should be purchased in the future so that the company can begin to work towards uniformity. This uniformity will allow easier and more efficient communications and information flow between different parts of the company. However, one must be cautious that the uniformity guidelines are not arbitrary nor should they bind anybody to purchasing a product that is entirely unfit for their purposes. Instead, they should be formed with feedback from all areas of the company to provide the best overall set of guidelines. At the very minimum these guidelines should apply to communications software and computer networking.

Lastly, there should be an assessment conducted of what computer equipment actually exists in Reynolds Metals Company. From this, it can be decided what additional equipment should be purchased. These purchases should be viewed as a strategic investment in the company's future. The plan for purchasing this equipment should have a specific time-frame which does not rush the process but which also does not sideline the process.

Following these three prongs will allow Reynolds Metals Company to form over time a coherent and structured communications system. At this time, I would only recommend implementation of a communications system company-wide. While there is need for automating certain

workflows, It seems the main priority at this time is improving the communications within the entire company.

U. Implementation

Implementing this system is much more complicated than the three prongs which have been discussed. One of the main potential problem areas in implementation was mentioned in one survey that was returned. They spoke of the problems of getting senior management to use the system. If there is little use of the system at the upper levels, it will at best slow the full implementation of the system and at the very worst may cause the system to not be utilized. While Don Cowles supports the idea, it does not seem a new system is likely to gain support from the rest of senior management. One possibility to avoid this problem is to implement the system in the Human Resources department only in the beginning. If this is done, with the support of Don, Denise will have much more control over its implementation and other employees will see the support of their department head for the project. However, this still leaves the problem of compatibility. If the system is developed for Human Resources only, then other areas may continue to purchase incompatible systems. Additionally, it may limit the possible gains from the project.

system in dollar terms, it is possible to look at two other areas: increased efficiency and empowerment.

Implementing electronic communications can have a very positive impact upon employee efficiency. One study conducted found that discussions which were conducted over this type of system tended to be more democratic and as a result "the quality of decisions, solutions and products produced by a group communicating through computer networks was significantly better."[1] Additionally, in a study of city employees, researchers found that employees who used electronic mail had higher levels of company loyalty and motivation.[2] Also, by allowing more people to participate, including people at peripheral locations, the likelihood of obtaining the best people for the right answer is also increased.

Using an electronic system can also make the leaders more effective. One book states, "The determining factor in the leader's success may be the proper or improper use of communication as the vehicle of persuasion."[3] This same book cites Katz and Kahn in describing "the essence of organizational leadership to be the influential increment over

---

[1] Filipczak, Bob. "The Ripple Effect of Computer Networking", *Training*. March 1994, vol. 31, no. 3, pgs.40-.

[2] Ibid.

[3] Koehler, Jerry W., Karl W.E. Anatol and Ronald L. Applbaum, <u>Organizational Communication: Behavioral Perspectives</u>. (Holt, Rinehart and Wilson: New York, 1976).pg. 135.

and above mechanical compliance with routine directions of the organization."[4] In other words, an organizational leader must motivate employees to 'go above and beyond'. The way that they can do this is through effective communication. Because RMC is such a large organization in many different areas, an electronic communication system would allow company leaders to more effectively communicate to all employees in the company, not just those they have direct contact with. This in turn would increase the quality of leadership within the company as well as the motivation of the followers.

In <u>Organizational Communication,</u> the authors cite several studies and other authors in saying that the more communication within a company, and the higher the quality of it, the more likely employees are to be satisfied in with their jobs and the higher the likelihood of organizational effectiveness. Additionally, a study found that 97% of CEOs surveyed feel that communicating with employees has a positive effect on job satisfaction and 79% thought it benefited the bottom line.[5]

Overall, it can be seen that an increase in effective communications will indeed make employees, both manager

---

[4] Ibid.

[5] Denton, D. Keith. "Open Communication; importance of Effective Communication Systems in Corporations", *Business Horizons*. September 1993, vol. 36, no. 5, pgs. 64.

and subordinate, more effective in their positions and will as a result cause the organization to become more effective.

Closely tied into this is the issue of empowerment. According to Sproull and Kiesler, "Communication can't be separated from who is in charge of the giving, receiving, content, and use of what is communicated. Information control is tied to other forms of power and influence. When we change information control using technology, we also change the conditions for other control relationships in the organization."[6] They cite a number of examples to support this with a number of examples. First, they say that status tends to be negated during electronic discussions. When executives meet face to face, men tend to be 5 times as likely to make the first decision proposal. However, when the discussion is electronic, the numbers became equal.[7] Other types of status also tend to be negated such as hierarchical and race based status. Furthermore, from a human resources viewpoint, employees want to do a good job. If managers provide them with the resources necessary to do a good job, including the right information, then the employees will be effective and efficient.

However, in dealing with both efficiency and empowerment, computerizing communication is not a cure-

[6] Filipczak, Bob. "The Ripple Effect of Computer Networking", *Training*. March 1994, vol. 31, no. 3, pgs.40-.

[7] Ibid.

all. While it can be helpful, it is but a tool that can be used by a company to further goals and values that already exist. It will not force communications to open up if people do not want them to, it will not empower employees if the right information is not presented on the system. Therefore, it seems that there will be some beneficial impact upon the company as a result of implementation. However, the extent of this positive impact will depend upon the commitment of upper level people to make it succeed.

VII. Conclusion

In conclusion, at the present time it seems as if Reynolds Metals Company is pursuing a bulletin boards based approach without following the three prongs outlined here. However, at this time, this report has not been presented to Denise. Also, I am not aware of everything that is happening within Reynolds Metals Company concerning this subject. What is clear is that Reynolds Metals Company must seek some way to update its information and communication systems. The longer the company waits the more it will cost both financially and in terms of employee empowerment.

Overall, this project has been extremely interesting. On one hand, it is easy to see what can be done in terms of information and communication automation and how it will help yet at the same time implementation of a system will be

difficult and most likely long. As a leader, this seems to be a central challenge--knowing the correctness of certain actions or a certain path but at the same time that the change process must at times be slow and deliberate.

Bibliography

"Benefit Communications: Enhancing the Employer's Investment", Victor S. Barocas. The Conference Board, Report 1035.(New York, 1993).

Bloomfield, Caroline L. and Irene R. Fairley, Business Communication: A Process Approach. (Harcourt, Brace and Jovanovich, Publishers: Washington D.C., 1991).

Bowman, Joel P. and Bernadine P. Branchaw, Business Communication: From Process to Product. (The Dryden Press: New York, 1987).

Brown, Leland, Communicating Facts and Ideas in Business. (Prentice-Hall, Inc.: Englewood Cliffs, NJ, 1982).

"Communications Strategies for Changing Times", Frank Caropreso, ed. The Conference Board, Report 965.(New York, 1991).

"Corporate Image: Communicating Visions and Values", Allyson LaBorde, ed. The Conference Board, Report 1038.(New York, 1993).

"Corporate Strategies for Effective Communications", Theresa Brothers and Holly Gallo, eds. The Conference Board, Report 991.(New York, 1992).

Denton, D. Keith. "Open Communication; importance of Effective Communication Systems in Corporations", *Business Horizons*. September 1993, vol. 36, no. 5, pgs. 64-.

Filipczak, Bob. "The Ripple Effect of Computer Networking", *Training*. March 1994, vol. 31, no. 3, pgs.40-.

Freeland, David B. "Turning Communication into Influence", *HRMagazine*. September 1993, vol. 38, no. 9, pgs. 93-.

Global Corporate Intelligence. George S. Roukis, Hugh Conway and Bruce H. Charnov, eds. (Quorum Books: New York, 1990).

Goldhaber, Gerald M., Organizational Communication, 3rd edit. (Wm. C. Brown Company Publishers: Dubuque, Iowa, 1983).

Koehler, Jerry W., Karl W.E. Anatol and Ronald L. Applbaum, Organizational Communication: Behavioral Perspectives. (Holt, Rinehart and Wilson: New York, 1976).

Wayne, Sandy J. and Shawn A. Green. "The effects of Leader-member Exchange on Employee Citizenship and Impression

Management Behavior", *Human Relations*. December 1993, vol. 46, no. 12, pgs. 1431-.

Appendix A

ᒋᴹ
Ms. Becky A. Everett
Information Systems Manager
Hewlett-Packard
3000 Hanover Street, MS: 20BJ
Palo Alto, CA 94304

ᴺ
Mr. Joseph T. Molnar, Director
HRIS Planning
Northern Telecom, Ltd
3 Robert Speck Parkway
Mississauga, ON, Canada, L4Z 3C8

ᴹ
Mr. Richard M. Berger, Manager
International HRIS
Motorola Inc.
1303 E. Alagonquin Road
Schaumburg, IL 60196

ᴸᴹ
Ms. Kathy Matsko, Manager
Human Resources Information Systems
Motorola Inc.
1501 W. Shure Drive #3183
Arlington Heights, IL 60014

ᴸᴹ
Mr. Henry A. Rodgers, Program Manager
Information Technology
IBM Workforce Solutions
150 Kettletown Road
Southbury, CT 06488

Ms. Karen K. Mihara
Systems Manager
Xerox Corporation
BP & SG Personnel Systems
1960 E. Grand Avenue, MS: ESC2-443
ElSegundo, CA 90245

ᴸᴹ
Mr. Donald S. Drucker, Manager
Human Resources Systems
Advanced Micro Devices
901 Thompson Place, MS: 7
Sunnyvale, CA 94088

Mr. Keith E. Nash, Supervisor
Human Resources Information Systems
Air Products & Chemicals, Inc.
7201 Hamilton Boulevard
Allentown, PA 18195-1501

ᴺ
Ms. Molly M. Rumbarger
Information Systems Business Supervisor
Corning, Inc.
HP CB-01-3
Corning, NY 14831

Mr. Neil Loftiss, SPHR
Senior Manager, Personnel Information
Systems
Federal Express Corporation
3975 Airways Boulevard, Mod E
Memphis, TN 38116

ᴸᴹ
Mr. Michael J. Method
HRIS Management Liaison
Ford Motor Company
3 Parklane Boulevard #229W
Dearborn, MI 48126

Mr. Kevin J. Maranto
HRIS Specialist
Helene Curtis, Inc.
325 N. Wells Street
Chicago, IL 60610

ᴬ
Ms. Christine F. Earley, Manager
Human Resources Applications
Intel Corporation
2770 San Tomas Expressway, MS: ST3-04
Santa Clara, CA 95051-8121

Eileen K. Palumbo
Mr. Joseph A. Shigo, Manager
Technology Director Shared Services
Johnson & Johnson
501 George Street, J248
New Brunswick, NJ 08903
(908)524-2010

LM

Ms. Barbara E. O'Connell
Human Resources Systems Specialist
Levi Strauss & Company
P. O. Box 7215
San Francisco, CA 94120-6916

N

Ms. Shirley A. Curry, Director
Compensation
TRW Inc.
1900 Richmond Road, MS: 3W
Cleveland, OH 44124

M
Ms. Karen E. Gillam
Project Coordinator
Whirlpool Corporation
200 M-633
Benton Harbor, MI 49022

LM

Ms. Pamela Puetz, Manager
Human Resources Information Systems
PacifiCare Health Systems
5995 Plaza Drive, MS: 1126
Cypress, CA 90630

should receive if not send another

Mr. Robert L. Holzbach, Manager
Human Resources Information Technology
Westinghouse Electric Corporation
803 Westinghouse Building
Pottsburgh, PA 15222

Appendix B

Draft Survey: Networks and Bulletin Boards
What do other companies have?

Hardware:

• What type of hardware do you have?

• What type of computer systems do you have?

• What type of networks do you have?

• How much do you use computer systems versus phone systems?

• Do you have multiple platforms?

Software:

• What software do you have?

Pre-implementation:

• Did you use an outside consultant?

      if so, who?

• How did you decide what was needed?

•How did you decide why you needed it?

Implementation:

• What training is necessary?

• How was the system implemented?

• How long did it take?

• What resources were needed?

• How were networks set up(i.e. phone lines, servers, etc.)?

Usage/maintenance:

•How do you handle manuals?

•What locations have access to the network?

• How is the network accessed?

• Who has access?

• What are the usage costs?

• What capacity does it have?

• How many users can it handle?

• How long until files are dumped?

• How do you administer the system?

Security/legal:

• How do you insure the security of network users?

• How do you insure the safety of network files?

• How do you backup the network?

• What legal issues have you had to deal with if any?

Other:

• Did implementation happen overnight or gradually?

• How is information organized?

• What kind of stuff is put out on the network?

•Who decides this and who puts it on the network?

•What type of interactive voice response system do you use?

• What type of bulletin boards do you use?

• Do you have any interactive networking?

Appendix C

INTERACTIVE INFORMATION SYSTEMS SURVEY

1)   How is your company structured? *(Check any that apply.)*

       Very decentralized (independent business units with broad decision-making authority)

       Somewhat decentralized (independent business units with some decision-making authority)

       Centralized (most decisions made at corporate level)

       Innovative

       Departmentalized

       Open (free flow of communication between departments and business units)

       Comments:

2)   How is your Human Resource Department structured? *(Check any that apply.)*

       Very decentralized (independent business units with broad decision-making authority)

       Somewhat decentralized (independent business units with some decision-making authority)

       Centralized (most decisions made at corporate level)

       Innovative

       Departmentalized

       Open (free flow of communication between departments and business units)

       Comments:

6)   Why did you implement each of these systems? *(Check any that apply.)*

  (A)   System: __ELECTRONIC MAIL__

        _____ Less paperwork   _____ Increase communication between divisions

        _____ Increase employee efficiency   _____ Eliminate redundancy in problem solving

        _____ Empower employees

        Have you been successful in achieving your goals? _____ Yes   _____ No   _____ Somewhat

        What barriers were eliminated or affected as a result?

        Other/Comments:

  (B)   System: __BULLETIN BOARDS (INTERACTIVE)__

        _____ Less paperwork   _____ Increase communication between divisions

        _____ Increase employee efficiency   _____ Eliminate redundancy in problem solving

        _____ Empower employees

        Have you been successful in achieving your goals? _____ Yes   _____ No   _____ Somewhat

        What barriers were eliminated or affected as a result?

        Other/Comments:

(E) System: __FACSIMILE__

_____ Less paperwork   _____ Increase communication between divisions

_____ Increase employee efficiency   _____ Eliminate redundancy in problem solving

_____ Empower employees

Have you been successful in achieving your goals? _____ Yes   _____ No   _____ Somewhat

What barriers were eliminated or affected as a result?

Other/Comments:

(F) System: __VOICE MAIL__

_____ Less paperwork   _____ Increase communication between divisions

_____ Increase employee efficiency   _____ Eliminate redundancy in problem solving

_____ Empower employees

Have you been successful in achieving your goals? _____ Yes   _____ No   _____ Somewhat

What barriers were eliminated or affected as a result?

Other/Comments:

7) What impact did implementation of interactive information systems have upon the employees and the company culture?

_____ Large impact

_____ Small impact

_____ No impact
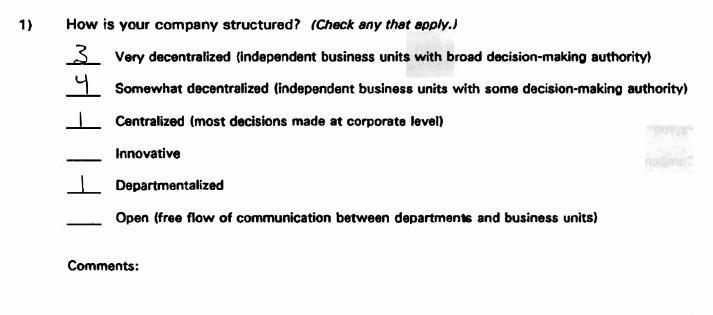
Comments:

Your name: _____

Position: _____

Phone: _____

Company: _____

Thank you for your time!

Appendix D

INTERACTIVE INFORMATION SYSTEMS SURVEY

1) How is your company structured? *(Check any that apply.)*

   _3_ Very decentralized (independent business units with broad decision-making authority)

   _4_ Somewhat decentralized (independent business units with some decision-making authority)

   _1_ Centralized (most decisions made at corporate level)

   ____ Innovative

   _1_ Departmentalized

   ____ Open (free flow of communication between departments and business units)

   Comments:

2) How is your Human Resource Department structured? *(Check any that apply.)*

   _1_ Very decentralized (independent business units with broad decision-making authority)

   _3_ Somewhat decentralized (independent business units with some decision-making authority)

   _3_ Centralized (most decisions made at corporate level)

   _2_ Innovative

   _2_ Departmentalized

   _2_ Open (free flow of communication between departments and business units)

   Comments:

6) **Why did you implement each of these systems?** *(Check any that apply.)*

(A) System: __ELECTRONIC MAIL__

__7__ Less paperwork   __4__ Increase communication between divisions

__6__ Increase employee efficiency   __3__ Eliminate redundancy in problem solving

__1__ Empower employees

Have you been successful in achieving your goals? __3__ Yes   ____ No   __2__ Somewhat

What barriers were eliminated or affected as a result?

Other/Comments:

(B) System: __BULLETIN BOARDS (INTERACTIVE)__

__1__ Less paperwork   __1__ Increase communication between divisions

__2__ Increase employee efficiency   ____ Eliminate redundancy in problem solving

__1__ Empower employees

Have you been successful in achieving your goals? __1__ Yes   ____ No   __1__ Somewhat

What barriers were eliminated or affected as a result?

Other/Comments:

(E) System: __FACSIMILE__

_3_ Less paperwork   _4_ Increase communication between divisions

_7_ Increase employee efficiency   _2_ Eliminate redundancy in problem solving

_1_ Empower employees

Have you been successful in achieving your goals? _2_ Yes   ____ No   _2_ Somewhat

What barriers were eliminated or affected as a result?

Other/Comments:

(F) System: __VOICE MAIL__

_5_ Less paperwork   _3_ Increase communication between divisions

_7_ Increase employee efficiency   _4_ Eliminate redundancy in problem solving

_2_ Empower employees

Have you been successful in achieving your goals? _3_ Yes   _1_ No   _1_ Somewhat

What barriers were eliminated or affected as a result?

Other/Comments:

7) What impact did implementation of interactive information systems have upon the employees and the company culture?

_ς_ Large impact

__ Small impact

____ No impact

Comments:

Your name: _____

Position: _____

Phone: _____

Company: _____

Thank you for your time!