This paper outlines a process implemented at Mott Community College (Michigan) for building technology-based systems that would encourage collaboration among the staff. The first goal was communication, which included using the following technology to allow people to communicate and to make information available: e-mail, calendaring, Intranet/Internet, campus directory, open positions database, human resources information system, World Wide Web-based course schedule, purchasing procedures online documentation, press release database, and reports system. The second major task was to build systems of cooperation; the goal was to develop automation systems that would allow work to flow more efficiently between people. Included were the current events system, help desk service request database, facilities service request system, book request database, and room scheduling system. The third step was to build collaborative systems which would allow teams of people to work together to accomplish common goals. These systems included online purchase requisition and approval, grievance tracking/solution system, and faculty information management system. (AEF)
Communication - an exchange of information or ideas. When you and I exchange ideas or information we are communicating. We can tell each other our goals, objectives and how we expect to accomplish them.

Cooperate - to act jointly with another or others. I cooperate with you when we act jointly. For example, we may need to re-boot a server to fix a problem. I ask you to sign-off so we can reboot. You sign-off, I re-boot and we've cooperated. I can cooperate with you in simple ways. This allows you to reach your goal. However I may or may not assist you in reaching your goal. In this first example, you cooperated, but you didn't really help much. In another example we may agree to cooperate on an assignment. I will write Chapters 1-4 of a project and you will write Chapters 5-8. Together we will cooperate to accomplish this task.

Collaborate - to work jointly with others. To collaborate we must work jointly to accomplish something. We work together to accomplish something together. We think of this as a team effort. For example, we may decide to collaborate on writing chapters 1-8 of a book. Together we could brainstorm the ideas for each chapter. Together we could write an outline of each chapter. Individually we might write the chapters and then we could edit each other's work to finalize the project.

One goal at Mott Community College is to work together with the community. Over the past several years the college has had many examples of successful projects. However the projects appeared as "smoke-stacks". Each was done well in and on it's own. However, there was not a global strategy for which all projects were done. Additionally there was little collaboration among departments at the college. Each department appeared to be doing everything by themselves. Rarely was a cross-functional team working together.

Part of the problem was clearly communication. Mott Community College is the largest college in Genesee County (Flint, MI). We have approximately 10,000 to 12,000 students enrolled in during any given year. We have a main campus and two satellite campuses (Southern Lakes and Lapeer). The 500 employees of Mott Community College relied mainly on standard communication methods: Letter, Memo, Fax, Phone and Voice Mail. These tools, while effective in small groups were not enough to allow the employees at Mott Community College communicate effectively.

In 1996 I held a discussion with the Vice President at the college. We discussed the goal of building collaborate processes at the college. Information Systems was identified as a key player in this process. How could we use Technology to help the college achieve its goals. During this discussion
the process of communication and cooperation were identified as necessary. It was clear that although our goal would be collaboration, our first step would need to be communication. After building a system of effective communication we would look to build systems to help staff cooperate. Finally, we would work to build systems that would encourage collaboration among the staff or Mott Community College and our community.

COMMUNICATION

Our first goal was communication. How could we use technology to allow people to communicate? How could information be made available to many?

Person to Person Communication: email

Certainly email was the first system we implemented. However, the key to this communication is the effectiveness of it. We set the following objectives:

- Email from any platform (PC, MAC, UNIX, POP3)
- Email from any location (office, home, labs, hotel, outside location)
- Email easy to use, training available
- Student email

If you expect email to be a major means of communication it must be accessible, easy to use and available to everyone. Many systems are available which meet these needs. We chose Lotus Domino on the server. We allow access to email via Lotus Notes for PC or MAC, any POP3 client (Netscape, Internet Explorer, etc.), and UNIX client access. We allow access to email from any workstation on campus, dial-up from home, via the Internet, or via FTP. We are looking at a package to allow users to read their email via their voice mailbox. Our goal is to allow email to be used easily by anyone anywhere.

Calendaring:

Next to email we felt a huge improvement was to allow people to do calendaring on the system. This allowed staff to keep their calendar on the system. This allows staff to allow others to read their calendar, update their calendar and even manage their calendar (based on secure parameters). A common calendaring system allows people to schedule together. If you need four people for a one-hour meeting you can query the system regarding available times. This allows people to schedule time to work together more efficiently. Many systems are available on the market that will meet these needs effectively at a low cost.

Intranet/Internet:

Information is available to people in a variety of formats. A few years ago a bulletin board was key to the college communication. Today, no bulletin boards are big enough to hold all the information available. We have built an Intranet to keep internal information. This system holds a variety of information from all areas. We have built systems to allow the owners of the information to post new information directly to the web without impacting Information Systems. This process is key to keeping information new and up-to-date.
Our Internet web site is in use every day by faculty, staff, students and guests. Our web-site has become one of our most important means of communication. Anything that is prepared in print (newsletters, brochures, etc.), is also posted to our web-site.

Campus Directory:

The campus directory (available via the web) contains important about contacting anyone at the college. This information is available by person, department or service. We provide information regarding where on campus anyone or anything is located, phone number to contact people or departments and information about each service available on campus. This information is available through a variety of views (sorts). In addition, a section of FAQ's (Frequently Asked Questions) is available to help resolve issues.

Open Positions Database:

The Human Resources Department always has important information for people across campus. All open positions are now managed via a database (system) and automatically posted via Intranet/Internet (depending on how the position is categorized). This system allows staff to monitor opportunities for advancement from their desktop.

Human Resources Information System:

The Human Resources Information System allows staff the HR department to communicate information to staff. This system is a completely on-line system that can be updated by the Human Resources Department at any time. The system holds data regarding: Job Descriptions, Union Contracts, Benefits, and HR FAQ's. Statistics show this system is accessed regularly by staff via the Intranet.

Web-based Course Schedule:

Based on information previously only available in the course schedule (and often quickly outdated) we developed a web-based course schedule. This system allows staff and students to access up-to-date information about our class schedule. Two types of access methods are allowed. The Internet access allows students to query information regarding courses based on a variety of topics including: type of class, semester, discipline or course name. The system provide accurate up-to-date response which accounts for sections which have been closed, new sections opened and even sections which are full.

An Intranet version of the Web-base Course Schedule is available to internal use. This system provides up-to-date information about sections including seat counts and historical information. This system is often used by associate deans for making decisions about classes and often used by counselors and advisors when working with students.
Purchasing Procedures On-line Documentation:

One of the most important types of communication is documentation. We have rolled-out several new systems in the past two years. One of the standards for all new systems has been on-line documentation. The purchasing procedures system is an excellent example of system documentation. It provides documentation of both the system and the procedures necessary for purchasing. A user need only look to this system to gain information about all the steps necessary (on and off the computer) for making purchases.

Press Release Database:

A year ago faculty and staff was occasionally surprised about what was in the local papers about the college. A need for communication this information was quickly identified. We produced a press release database that allows staff to access all press releases. It is tied into email to allow important press releases to be immediately email to everyone on campus.

Reports System:

Last year Mott Community College delivered reports to the State of Michigan that was inaccurate. When researching the reason why it was apparent that the reports had not been seen by the right people on campus. Since most of our Federal and State reports are available to the public, they certainly should be easily accessible by faculty and staff. A system has been developed which allows faculty and staff immediate access to all required reports. In addition a list of appropriate report reviewers has been identified for each report. The system is tied to email so that all report reviewers receive the report via email at least two weeks before it is sent out to the requiring agency.

COOPERATION

Our second major task was to build systems of cooperation. We looked first to automating existing process. Our goal was to develop workflow automation systems that would allow the work to flow more efficiently between people. By eliminating "wait time" in the steps of a process we could improve the processes for everyone.

Current Events System:

It is always tough to communicate to people about what's happening on campus. We have developed a current events system that tracks and manages all the events on campus. However the system has multiple views available for accessing the data. These views allow people to see the events that they're looking for. For example there is a sporting events view which only shows sporting events. Several other views are available.

Help Desk Service Request Database:

This system has been developed to allow staff and Information Systems to cooperate to resolve Help Desk problems. The system allows any staff to input a service request into the system. The Service Request is automatically routed to an appropriate queue for assignment. From the queue the Service
Request is routed and tracked from assignment through completion. As the status of the Service Request changes it is automatically emailed to the originator. This important flow of communication allows staff and Information Systems to cooperate together and resolve problems quickly.

Facilities Service Request System:

The Facilities Service Request System is modeled from the Help Desk Service Request Database. It allows anyone on campus to originate a Facilities Service Requests. Based on the type of request it is automatically forwarded to an appropriate queue for resolution. Again, the originator is kept up-to-date as status changes occur. However, the system has an added feature which is helpful: the system provides automatic escalation. If a problem is not resolved in a reasonable amount of time (based on priority), it is escalated (via email) to supervisors, managers or directors for follow-up. This important feature has allowed the department to respond to important problems that previously might have been "forgotten" or "misplaced".

Book Request Database:

One problem on campus was getting the right books on the shelves in the bookstore on a time. This system automates the book request and ordering process from faculty to the Associate Dean to the bookstore. Faculty enters their book request into the system for each section to be taught in the upcoming semester. The system provides important reports to associate deans for follow-up. The bookstore receives the request, can combine them into groups and make sure the right numbers of books are ordered.

Room Scheduling System:

In 1996 several staff were available the first week of class to resolve classroom-scheduling problems. If two classes arrive at one classroom at the same time, they would work to find another classroom for one of the classes. A room scheduling system allows administration to schedule rooms with confidence that they are available. An interface with our administration system was necessary to allow us to insure it is done completely.

COLLABORATION

Our third step is to build collaborative systems which will allow teams of people to work together to accomplish common goals. These systems are built upon similar themes to the cooperation systems. However they allow people to work closely together to solve problems.

On-line Purchase Requisition & Approval:

The system allows people to work together to get appropriate items requested, approved, ordered and delivered in a timely manner. This system works a request from the requestor to the approver to purchase to shipping and receiving. It automates the process for checking fund availability. The system is tied to our email system and routes purchase requests automatically to the right people.
Grievance Tracking/Solution System:

Mott Community College has five different classifications of staff with five different unions. The college wants to resolve any issues in a reasonable timeframe. However, the rules and regulations regarding these issues are complex. These system tracks outstanding grievance issues through the union approved process. Many of the steps in this system are timed. If certain steps are not done within the timeframe, warning emails are automatically sent to appropriate staff. This system also help the union staff to monitor the process and steps involved in resolving a grievance. Before this system was developed the college had close to 100 unresolved grievances (many old). As of this writing there were 8 open grievances!

Faculty Information Management System:

Important information about faculty is necessary for many departments: Accounting, Payroll, Human Resources, Division Offices and Faculty themselves. We needed a system to track:
- Faculty Assignment/Contract
- Automate Payroll based on assignment
- Automate GL allocation based on assignment
- Calculate Seniority, preference points and earned benefits based on assignment.

Keeping track of all this information was difficult. It would be tracked manually by one person effectively for a period of time. Then the person would leave or transfer and the college would lose track of key information. This problem occurred many times. The college needed a system that would include all the groups necessary allow everyone to access the same information, allow proper people to enter assignment information, produce the faculty contracts (full-time, adjunct and part-time) and provide reports. By putting together a cross-functional team we were able to develop a system to meet the needs of many groups at the college.

All of the above systems were developed in cooperation with user groups. All of these systems were built in less than 2 years by a staff of 3 people (one working part-time). The Information Systems Department used an inclusive process for developing these systems with the users. At ASCUE '98 I will be discussing some of the processes used in developing these systems. In addition, in June 1998 a presentation will be place at the Mott Community College website (www.mcc.edu) regarding how Mott Community College is Using Technology to Communicate, Cooperate and Collaborate.
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