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Some 250 telecom professionals attended ACUTA's Winter Seminars at the Sheraton San Marcos in Phoenix, Arizona, January 21–24. Based on comments included in the evaluation forms, participants generally felt this seminar was "very worthwhile," and provided "good interchange among members."

**Track I. Wireless Technologies**

Principal speaker for the Wireless Technologies Tutorial was Wayne Pecena, Chief Engineer for Educational Broadcast Services at Texas A & M University. Pecena is responsible for all technical facilities of the Trans-Texas Video Conference Network and the broadcast telecommunication activities of KAMU-TV and FM. Pecena also develops and teaches courses at the university, has designed and implemented satellite and fiber-optic systems, and has served on several national telecom-related committees.

In his opening remarks, Pecena indicated his presentation would focus on the basics—including terminology and acronyms—plus cost issues, some regulatory background, and fraud issues. Identifying this technology as a hot topic in the media, Pecena chose to define

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**ACUTA Board of Directors Issues Call for Nominations for ’96–’97**

Randal R. Collett, Chair  
ACUTA Nominating Committee

With campaigns for the U. S. national elections gearing up, perhaps you’ve donned your political cap. But remember, unlike the national electoral process, determining candidates for ACUTA offices is not a function of party politics; we rely solely on nominations from our members.

Each year at this time, the Chair of the Nominating Committee issues a call for nominations for ACUTA’s Board of Directors. Our governance structure calls for us to elect four positions each year: President-Elect, Secretary/Treasurer, and two (2) Directors-at-Large. Accordingly, nominations will be accepted for the following:

**President-Elect:** As stated in the Association Bylaws (Article III, Section A6),

"Candidates for the office of President-Elect must have served as a member of the Board of Directors for a minimum of one year, or served as the Chair of a permanent committee for a minimum of one year." Nominees for this position must also be prepared to serve the following two years as President and Immediate Past President, as specified in the Bylaws.

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Welcome
New Members

January, 1996

Institutional Members
- Capital University, Columbus, OH. Dr. Robert Paterson, ph. 614/236-6451; Tier 2
- Pasadena City College, Pasadena, CA. Edward Himelhoch, ph. 818/585-7512; Tier 4

Corporate Affiliates

COPPER LEVEL
- Campus Televideo, Greenwich, CT. Edward M. (Ned) Lamont, ph. 203/661-4771

Associate Members

Directory Corrections

Please note these corrections to your 1995–96 Membership Directory :
- p.47, 73: Judy Halterman, Sprint, 260 High St., Maryville, TN 37804. ph. 423/982-9462, fax 423/984-3947
- New phones at Washington State Univ.: Dave O’Neill, 509/335-0499 (p.6,16, 17,32,43,96); Joe Douglas, 509/335-0507 (p.32,64); Dave Ostrom, 509/335-0504 (p.32,97)
- SIU Edwardsville: Delete Cord Abernathy, Reid Christenberry, Karen Geary. Add Cheryl Strackeljahn (p.27, 35,111), Larry Foster (p.68), Edward Knowles (p.82). ph 618/692-3741
- p.32, 40, 103: Wells College; Delete Edward Rudy. Add Joseph Dyson, MIS Dir., Rt. 90, Aurora, NY 13026. ph.315/364-3217; jdyson@wells.edu
- p.83: Helen Lafferty’s address is Tolentine Hall. ph.610/519-4510, fax 610/519-4514.

ACUTA’s Board and staff are beginning a very busy period. The Board meeting for January included a review of our preparations for the Phoenix seminar and a discussion of the upcoming Seattle seminar. ACUTA’s Executive Director, Jeri Semer, indicated that ACUTA staff had finalized speakers for Seattle and contract preparation was under way. President O’Neill gave the Board information about the plans for ACUTA’s 25th Anniversary event in Chicago. ACUTA’s Secretary/Treasurer gave the year end report and the Finance Committee is beginning the annual budget process for ACUTA.

Committee chairs will be mailed budget forms soon. Their information will be used to develop the budget and help determine future directions.

Other items on the agenda included:
- A Legislative/Regulatory Committee update on hearing aid compatibility rules
- A discussion of changing the time for presentation of the Institutional Excellence awards at the Annual Conference from the banquet to a luncheon
- An update on the Local Event to be held in June
- New Host School guidelines for schools hosting ACUTA events throughout the year
- Committee reports Submitted by:

Anthony R. Tanzi, RCDD
Brown University
ACUTA Secretary/Treasurer
Professional Development

A member of my staff stopped by my office the other day requesting the opportunity to attend a training session offered here at the University. I suspect Washington State University is not unlike many institutions around the country in that a great many interesting topics are presented and employees are often given the opportunity to attend. After all isn’t that what we’re really all about?

This individual began to define what the training was, desperately attempting (in vain) to relate it to telecommunications and to make a case for why the material was so important. I sat quietly listening. I had already made up my mind. This person had shown a great deal of passion but had not pleaded a credible argument. Weak argument, irrelevant evidence and trivial examples exhausted, the employee sat awaiting judgment.

My response was a simple, singular rhetorical question. “Do you really expect me to believe this session is even remotely related to telecom?” The employee’s reply was a sheepish, “No, but I thought I’d take a shot.” Without further discussion I reached for the request form and marked the appropriate box authorizing work release for this employee to attend the session with no requirement to make up the time.

Looking truly puzzled, the employee asked why I had not only approved the request but had authorized time off to attend. I hope the logic embedded in my response was conspicuous and superior to that foisted upon me moments before. As a supervisor and manager of people, I must do more than provide direction, prioritize tasks, budget resources, and evaluate results. These responsibilities are direct functions of goal attainment. There is another group of functions that must be born by managers: employee development. The relationship between the two is unquestionable. The commitment to one over the other is all too often, unfortunately, certifiable.

An employee needs to be proficient these days in job-specific skills, but the list of expected collateral abilities is ever growing. To read, write, and speak effectively, to make effective presentations, to motivate self and others, to project confidence and a positive self image, and to demonstrate basic organizational development skills are but a few of the expectations of us no matter what our title, position, or responsibilities.

Having recognized these demands, the Program Committee has proposed a Professional Development session be incorporated into the summer Conference program. I believe this to be an outstanding proposal and will recommend that this become a regularly scheduled session during all future summer Conferences. The topic or issue, you ask? Great question! No singular topic or issue. I have directed the Program Committee to obtain input from all appropriate sources, then draft and submit to the Board of Directors a set of guidelines or parameters by which topics and issues may be evaluated and selected. My only caveat was that topics and issues pertaining directly to telecommunications be off limits.

This proposal speaks to the heart of an element in the ACUTA mission statement. That being to develop leadership and management as well as technical capabilities. I applaud the Program Committee and look forward to their forthcoming proposal.

’til next month…

President’s Message

Dave O’Neill
Washington State University
ACUTA President

Seattle, Washington • Spring Seminar • March 31–April 3

“PBX Technology”
Principal Speaker
Allan Sulkin, TEQConsult Group

Nationally known PBX expert Allan Sulkin will explore the evolution of PBX technology; examine the strategy and direction of typical and atypical PBX suppliers; compare PBX and Centrex; identify the requirements of high bandwidth and wireless technologies; consider how the PBX will interface to ATM or higher speed networks; and look at procurement strategies and upgrade techniques.

Topical presentations by ACUTA members:
• Implementation and Management of the Small Campus PBX & Telecommunications Operation
• Using PBX Technology to Further the University Without Walls
• Centrex: The Way for Today
• Strategies for Presenting & Selling the Alternative to Centrex: PBX/Switch
• Member Panel: PBX Procurement Issues/Strategies
• Vendor Panel: Future Directions in the Evolution of PBX Technologies
• Roundtables on common interests: budget size, enrollment, type of PBX eqpt., Centrex users, etc.
The Michelangelo Virus: Should You Still Be Worried?

Jack Wiles
Director of Information Security,
Oltronics Telecommunications Services, Inc.

Have you instituted a virus-scanning program on your home and corporate computers? If not, I hope you don’t find any surprises on March 6th of this year.

We are now four years and counting since the famous Michelangelo Virus scare of 1992. At my seminars throughout the country, I always ask for a show of hands from those who have experienced a virus on any of their computers. In 1995, almost every hand went up at every seminar no matter how many people were in attendance. That’s not good news!

Last year, I added a new question: How many now have virus-scanning programs at work or at home? (Remember, home computers are where most of the viruses come from that wind up on your computers at work.) Since many hands went up in response to this question, I’ve begun to feel we may get a handle on this thing. The only defense is to never stop scanning.

This isn’t going to go away
When describing the virus threat, I still use a slide that was made in 1988. It shows all 60 (that’s “sixty”) active strains of viruses in existence at the time. Back then, we thought 60 was a lot. It would be three years later before I would personally meet and talk with someone who had experienced a virus. Some reports now show more than 6000 viruses and counting. I now meet few people who haven’t experienced one.

Totally preventable
Unlike other types of threats that security specialists deal with, viruses are almost totally preventable simply by practicing “safe computing,” so it’s difficult to understand why more people don’t prevent them. Maybe people don’t think it could happen to them. I’ve seen more than one report commenting that if you don’t actively scan for viruses, your chances of being infected will soon approach 100%.

The un-preventable virus
The Michelangelo virus is more interesting and potentially more dangerous than many other viruses. I didn’t make that statement to start another Michelangelo scare. It’s the way the virus activates that makes it interesting.

Viruses basically have two jobs. First, they want to spread and “infest” (attach themselves to) other programs on the disk. That’s why this type of software is called a virus. Their second job is to “activate” eventually and do whatever else they were programmed to do. That could be anything from saying Merry Christmas to formatting your hard drive (or worse).

Most viruses don’t do the “infection” and the “activation” at the same time. That’s why you can often have files infected on your computer and not know it until you scan the disk. Depending on

Practicing “safe computing” needs to become a way of life for all of us. What would you do if you couldn’t use your computer or network for a few hours or several days?

the virus, the activation might be waiting for something else to happen. In the case of the Michelangelo virus, it’s waiting for his birthday (March 6) to roll around again.

Your worst nightmare would be to have a Michelangelo-virus-infected disk sitting in your A: drive when you turned on your computer on March 6, 1996. (Maybe you forgot to take it out when you copied that report that you worked on at home to your hard drive at work the day before.) If your system searches the A: drive first for an operating system (and most do), you’re in trouble. You would have “installed” and “activated” this very nasty virus on your hard drive even if there was anti-virus software running on the hard drive. By accidently booting from the A: drive, you started things in motion before the operating system on your hard drive and the anti-virus software began running. The chances of your being this unfortunate are, hopefully, slim. You could reduce them to near zero by scanning every disk before doing anything else with it.

The virus that wasn’t
During 1995, we experienced a rebirth of the virus that wasn’t: the famous Good Times Virus. It was supposed to do nasty things to your hard drive if you received and read an e-mail message containing the words Good Times in the subject line. This turned out to be a hoax that got out of hand. More than one major corporation sent warning messages to all employees, and there was even an e-mail message circulating that was supposedly from an official government organization warning about the virus. All of this was bogus.

If you are ever in doubt, contact the Computer Incident Advisory Capability (C.I.A.C.) group of the Department of Energy for excellent “free” help. Send them e-mail at ciac@llnl.gov and ask them to add you to their list for receiving alerts. Another great place for security information on the Web is at the NIST Home Page at http://csrc.nist.gov/ It will lead you to other Home Pages for a number of security related groups and ftp sites.

The virus that isn’t
In addition to the virus that “wasn’t,” we experienced the virus that “isn’t” during 1995. It was hidden in a program called AOLGOLD.ZIP. Even though we tend to call all nasty code a virus, this one was more a malicious code delivered in a “Trojan Horse.” Information Bulletin Number G-03 from C.I.A.C. describes it in detail. Basically, here’s how it works:

Apparently, an e-mail message is being circulated that contains an attached archive file with the name AOLGOLD.ZIP. After this file is unzipped, there will be a new INSTALL.EXE file and a README.TXT

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Telecommunications Legislation

Telecommunications Reports (1/8, 1/15, 1/22/95) indicates that some legislators are still not happy with the telecom legislation. According to Sen. Pressler, Chairman of the conference committee, 9 of the 11 Senate conferees likely will sign the conference report but it may be March before a vote is called.

One key House committee member criticized the compromise measure as too regulatory. Of course, federal budget problems will take priority and will most likely cause delays in telecom legislation.

At a Jan. 18 press briefing, FCC Chairman Reed Hundt indicated that “the FCC will not be able to implement provisions of the pending telecommunications legislation unless Congress increases the agency’s fiscal year 1996 budget by $10 million or more.” He added that work on other proceedings also could grind to a halt. The FCC originally asked Congress for $225 million for 1996; the House appropriated $185 million and the Senate $166 million. A conference committee approved a budget of $175.7 million but the bill was vetoed by the President. The FCC is now working under a “continuing resolution” which gives it the lowest of the FY 1996 House appropriation, FY 1996 Senate Appropriation or FY 1995 budget. (TR 1/15)

Hundt accused Congress of a “budgetary drive-by shooting” while FCC workers were furloughed and implored Congress to “fix” the situation, or risk triggering a “calamity” for communications industries, which he said represent one-sixth of the total U.S. economy.

Caller ID

Some areas have it and others do not. The date set by the FCC was December 1, 1995, but this has been extended until March 31, in some cases. The 12/18/95 issue of 411 indicated that “40-50 LECs and IXCs are using CO switches that weren’t upgraded to transmit calling party numbers (CPN) by the deadline....”

Some LECs and IXCs have indicated that they may not be able to make the March deadline. U.S. West has determined it may take up to late 1996 to get Caller ID in place on its whole network, and Bell Atlantic projects a mid-1996 date for CPN signaling on its full network. Others are not sure and have not indicated what portion of their network is currently up and running with CPN. Ameritech indicates that they have 97% availability. AT&T, MCI, Nynex and Southwestern Bell are reported to have met the deadline.

PCs replacing PBXs?

In its 1/18/96 issue, 411 tells of a PC card that performs all of the standard PBX functions with up to 6 trunks and service for 18 extensions. The card and necessary software cost $4,295 and run in a 486 PC. As many as 6 cards can be put into one PC to service 36 trunks and 108 extensions. Not bad at a very low price, but these will only handle analog technology at the present.

I think this technology should be watched very carefully as it will likely not be long before a card will be developed to handle anything that your PBX can now handle if a market opens up for the products.

Virus

Continued from page 4

file in the directory where the file was unzipped. The README.TXT file describes this supposed new and improved interface to the AOL service. The INSTALL.EXE file is actually a self-extracting ZIP archive containing 18 files which will be extracted to this same directory when you run it. So far, if I had been doing this on my computer at the office, nothing would be damaged. Yet!

One of those 18 files is named INSTALL.BAT. If that one is run, many of the most critical files on my C drive would be deleted.

The rest of the Bulletin goes on to discuss possible recovery procedures. (If you have done your homework and performed frequent backups, your troubles should be minimal.)

What can we learn from this? First of all, there have been no known problems caused by simply reading e-mail messages. Secondly, this is not a virus, and virus-scanning software will not be looking for new attached executable files unless they themselves contain a virus. Finally, we should be cautious of ANY new executable files when we aren’t absolutely sure what they are and where they came from. In this case, running that first INSTALL.EXE file could have been just as deadly if it contained the malicious code.

“Reasonable due care”

One more reason to do everything you can to prevent a virus from getting into your organization’s computers is “reasonable due care.” Some companies find out what this means too late. (This is especially true for public companies with stock holders.) I am not an attorney, so you might want to check with your legal counsel for clarification on this subject. In layman terms, it means that a company must take reasonable due care to prevent unnecessary losses of the stock holders’ money. If a virus gets into your network, and that virus causes enough damage to make your company lose money, have you taken “reasonable due care” to prevent the loss?

I’ll leave you with that question and hope that Michelangelo’s birthday is a nice quiet one for all of us.

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wireless as anything that isn’t hard-wired in terms of telecom equipment. That is, no physical connection limits its mobility. Current emphasis on the use of wireless can be attributed to three factors, Pecena told his audience: First, we are a mobile society; we no longer sit at our desk in our office the way we used to. Second, there is an emphasis on an increased level of productivity. We have come to expect the virtual office wherever we may be. For the ’90s version of the workaholic, this implies the need for constant contact—an electronic leash, some have said.

Third, improved technology has created a demand for instant access to a specific person, not voice mail, and not a secretary. Ten years ago, companies frequently offered a “telephony 101” course, not to explain how a phone worked, but to address issues of telephone etiquette and operational policies and procedures. Now autoattendant and voice mail are the rule, not the exception. But almost-instant access now provides voice mail that outdials to the pager carried by the executive-on-the-go who then returns the call with a cellular phone. Pecena called this the practical version of instant access, remarking that it would be nice to have this in one hand-held device and noting that we are not far away from Dick Tracy’s marvelous wristwatch.

New technologies always receive publicity, but Pecena pointed out some statistics that illustrate why wireless is such a hot topic: 25,000 new cellular users are added each week in the U.S. As much as 12% of the total population for whom cellular service is available actually has cellular service, with the average monthly bill about $125. Given those dollars, plus the value of the radio frequency spectrum, the wireless industry is projected for 1997 to be about a $15 billion industry. Most of that $15 billion is spent in mobile communications and emerging technologies such as PCS.

Pecena described for his audience how broad the subject of wireless communications is, mentioning PCS, pagers, infrared or optical communications (in-building wireless LANs), meteor-burst communications (which the research community and government have used for years), microwave, point-to-point, two-way and one-way satellite technology, two-way mobile radio, and HDTV.

Other presentations in the Wireless Technologies track included:

- Stanford University’s Wireless Communications Strategy and Service Plans; Maureen Trimm, Stanford Univ.
- Wireless Voice & Data at Wake Forest University; Buck Bayliff and Jay Dominick, Wake Forest Univ.
- Seeking a Wireless Solution in the State of Missouri; Gail Wekenborg and Jim Lunsted, Missouri State Highway Patrol
- Wireless Infrastructure: A Potential Revenue Source; Gregg Stevens, RAM Communications
- Campus Wireless Applications; Jane Montemayor, AT&T Wireless
- Corporate Presentation: Personal Communications—The Next Few Years; John Herrera, Sprint

Track II. Student Services

Opening the Student Services presentation, Geoff Tritsch of Compass Consulting walked the audience through a fictionalized scenario on a fully automated campus. The student in his story used his universal card for access to secured buildings, purchases at the bookstore and dining hall, reserving practice rooms, and more. Other services were an integral part of the daily routine including voice mail and e-mail communications with other students and teachers. The story, as Tritsch explained, was to illustrate the kind of expectations being created at every level, from student to student, for the campus of tomorrow.

Tritsch and his colleagues Dave Metz and Mal Reader kept their audience focused for the next few days on the changing face of student services, identifying the aspects of student services they intended to cover by the acronym MAPS: Money, Access, Politics, and Survival. It is critical, Tritsch explained, that telecom professionals adapt what they are doing to the rapid change that has become a characteristic of the ’90s.

Tritsch, Metz, and Reader raised important questions, such as “How do you deal with the politics?” and “How do you survive the changes?” and they explored new revenue territories within higher ed. The presentation also identified weaknesses in traditional revenue resources: Competition from other providers as well as e-mail and the Internet is shrinking the profit margins on long distance resale; there are multiple providers of dial tone in some areas; costs for some hardware such as converters are so low that equipment rental is obsolete; charging for e-mail and Internet access is a hot issue on many campuses.

The presentation defined the student as a customer, encouraging the audience to focus on service to generate more revenue. Providing some new services may create additional sources of revenue, such as combining voice mail and infotext or “talking yellow pages” applications to offset costs and produce a

Continued on next page
"profit." On the other hand, other services will be necessary expenses: emergency phones, security surveillance, and more. With the convergence of data, voice, and video, budget lines often blur, and telecom, housing, info services, and other areas often lay claim to the same dollars. Tritsch advised participants that awareness and vision will help the telecom administrator to be proactive rather than reactive.

Other presentations in the Student Services track included:
- Member Issues Panel with Buck Bayliff, Wake Forest Univ.; Steve Gooley, Indiana Univ.-Bloomington; Tony Tanzi, Brown Univ.; and Anne Crowley, Stanford Univ.
- Headaches, Nightmares, and Successes!, Louise Easley, Mary Kurtz, and Carole Sedlock of the Univ. of Toledo
- Off-Campus Student Resale at SUNY Oswego, William Gruszka
- Reorganizing Your Financial Structure: How to Remain Profitable on Today’s IT Campus, Jim Dronfield and Angel Marlowe, Duke Univ.
- On-Campus Telecom Services for Off-Campus Students, Dena Barrett, Univ. of Pennsylvania
- Vendor Panel: ACC Long Distance, AT&T, campusMCI, Consolidated Communications, Sprint
- Corporate Presentation: Providing Advanced Data Solutions to Students Living on Campus, Larry Lindberg, PairGain Technologies

For information regarding audio tapes of the Winter Seminars, contact Kellie Bouman at ACUTA. (606) 278-3338 or e-mail kbowman@acuta.org.

Deadline for entries in ACUTA’s Institutional Excellence Award competition is March 15.
Call Lisa Cheshire in the ACUTA office for more information.
(606) 278-3338

UCLA Switches on Its 6800

Mike Schilling
Director, Financial & Information Secs.
Univ. of California, Los Angeles

In the 15 months from design to implementation, the UCLA Housing Group has installed 25,000 new telephone, modem, fully interdicted CATV, and fully switched network connections. In an all new construction process, each resident and hotel guest has at their bedside a new set of technology tools. The overall project, managed by the UCLA Housing Group and UCLA Telecommunications, consisted of five publicly bid RFPs and resulted in more than 3,000,000 feet of copper and fiber being installed in nearly 100 buildings and 40 Hub rooms. Services are provided over two Category 3, one Category 5, and one RG6 cable. The overall project was completed by adding only one casual project manager and two students for the 15-month period.

Support services are being headed up by the Housing Group’s new Student Technology Business Center. For a one-time fee of $100, students have full access to fully switched network services supported by the University’s Bruin-On-Line Software Suite and an ethernet card purchased and installed by the center. All other fees for 65 channels of CATV services, Help Desk, Software Training, Installation, etc., have been included in the room fees at cost or approximately $95 annually.

The overall cost of the project including full CATV interdiction, network switching (to the port), and CATV head was approximately $6.5 million. The vendors which participated as partners in the process included EBC Integrated Solutions (wiring), Pacific Rim Communications (fiber installation), Electroline (interdiction), and Xylan (network switching). In addition, UCLA Telecommunications, through an RFP process, won the award as the CATV signal provider over five local providers.

This process began its research and journey with ACUTA. It continues its growth by the sharing and open participation of the members of this organization.

For more details, contact Mike Schilling at (310) 825-5125 or e-mail mschilling@be.ucla.edu.

Teletoons

By Frank & Troise

Got some bad news, son. Emma and me have decided not to migrate to Windows 95 just yet.
Telemangement University Online

Stephen Doster
Telco Research

Because information sharing represents the real power of the Internet, Telco Research has developed the first online "Telemagement University," located at: http://www.telcores.com

Here you'll find articles about telemangement, quotes from telecom industry players, a glossary of telemangement terms, frequently asked questions, and various telemangement concepts such as CDR collection and costing, traffic statistics, voice optimization, toll fraud detection, and so on.

We have also established links to telecom resources we think are helpful to communications professionals. For instance, MCI has a home page dedicated to toll fraud security. The Telecom Forum site contains a world wide directory of telecom vendors. The University of Michigan's web page is a great repository of telecommunications resources as is Analysys' (United Kingdom) Virtual Telecom Library. And we hot-linked to ACUTA's home page to direct higher education communications professionals from around the world to ACUTA's resources.

The next phase of our home page will include online customer support. We have provided interactive online support for our client/server customers for a number of years; however, security issues dictate that we slowly phase in online support for all of our customers.

Telco Research's home page will evolve in content, design, and services and will include plug-in apps such as video training clips. Suggestions or feedback from ACUTA members will be greatly appreciated. Please e-mail me from our home page or at doster@vax.telcores.com.

Silver Anniversary Update

The 25th Anniversary Committee has met regularly over the past few months to plan activities to commemorate this auspicious milestone in ACUTA history. From the logo contest to the Milestones inserts in the newsletter every other month to the spectacular celebration planned for the Annual Conference in July, the Committee is pursuing many creative initiatives that will make this a year to remember.

As announced in Milestones last month, the Committee has issued a call for memorabilia to be donated for a time capsule. The items donated will be secured in a specially designed container that will be kept in the ACUTA office until the Golden Anniversary in 2021. Items should represent either campus telecommunications in 1996 or the Association in some way, so that when the capsule is opened in 25 years, members will have a better idea of who we were, where we came from, and what we were dealing with at the end of the 20th century. If you have suggestions for the time capsule, or if you have items to donate, please contact Pat Scott at the ACUTA office (606) 278-3338.

Press releases have also been sent out regarding our special celebration and some of the related activities. The information distributed to selected telecom-related media also included a brief history of the Association. Watch the magazines you receive for articles pertaining to ACUTA's 25th Anniversary. You will be receiving in the next few weeks a version of this material suitable for your local paper, campus newsletter, etc., with the suggestion that you add a paragraph about your own involvement with ACUTA.

As we continue to recognize those individuals who have committed time and energy to the goals of the Association, we hope you will want to participate in as many activities as possible. If you have ideas or suggestions, please contact any Committee member (see the January Milestones for a list) or the ACUTA office.

Nominations

Continued from page 1

Secretary/Treasurer: This is a one-year position. Since the Secretary/Treasurer may serve two consecutive terms, Anthony Tanzi of Brown University is eligible to run for re-election if he chooses.

Directors-at-Large: Two positions shall be elected each year and the term shall be two years. The Nominating Committee will assemble a slate of nominees from names submitted by the membership. The two candidates receiving the most votes will be declared the winners. The Director-at-Large terms expiring this year are Buck Bayliff, Wake Forest University, and Linda Bogden-Stubbins, SUNY Health Science Center. Each is eligible for a second two-year term, should they choose to run for re-election.

Additionally, current President Dave O'Neill, Washington State University, becomes the Immediate Past President, and President-Elect Jim Cross of Michigan Technological University will assume the position of President for 1996-97.

Any Institutional ACUTA member may submit nominations for the offices of President-Elect, Secretary/Treasurer, and Director-at-Large. However, any individual nominated should be aware of the considerable commitment to carry out the responsibilities of the office. The individual's institution must also be prepared to support such a commitment.

Per Article III, Sections A2 and B2 of the Bylaws, nominees must be either a primary or associate representative of an Institutional Member.

Nominees will be contacted to discuss the duties and responsibilities associated with the position and their ability to fulfill those obligations, and to answer any questions the nominee may have.

Nominations must be received by 5:00 p.m. CDT, April 12, 1996. Send all nominations to: Dave O'Neill, Asst. Dir., Information Technology, Washington State Univ., Information Technology Bldg., Rm. 2110, Pullman, WA 99164-1222. Fax 509/335-3421.

Phone nominations will not be accepted. All elections will be done by mail ballot to provide all voting members an opportunity to participate in the selection of ACUTA's leadership.
A library in every room at Wake Forest

The Plan for the Class of 2000 at Wake Forest University will, among other things, be "like moving an entire library into each student's room," says University Provost David G. Brown. Implementation began in 1995 with a pilot group of students and faculty using IBM ThinkPads. Every two years the ThinkPads will be replaced by current models, and students will own their ThinkPads upon graduation.

Upon completion of their campus network linking nearly every building on campus, all students will be able to communicate electronically with professors and each other, access the library, and conduct research without leaving their room. Hard copies of documents will be supplied by centrally located printers.

_Wake Forest's ACUTA rep is Buck Bayliff._

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Princeton moves to fiber-optic backbone

According to CIT Info (Oct. 1995), Princeton University has replaced decade-old broadband cable with fiber optic for the network backbone connecting all academic and administrative buildings. Ethernet-to-broadband bridges that were displaced in this implementation are now supporting Dormnet, the network that connects on-campus undergrad dorms, which will remain on broadband cable for at least another year. Two new Novell servers have been put into production, serving Dormnet and administrative and academic users.

_ACUTA rep at Princeton is Frank Ferrara._

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"You must learn from the mistakes of others. You can't possibly live long enough to make them all yourself.

—Sam Levenson
_Quoted in Communications Briefings_

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Boston College chosen for cable modem trial

Speaking to _The Wall Street Journal_ (12/27/95), a student described the new cable modems at Boston College as "astronomically faster." More than 6,600 dorm rooms, 2,500 classrooms, and 400 campus offices are involved in the test by Continental Cablevision. Students' e-mail can now include photos, and student-designed Web sites are commonplace. Usage has also increased dramatically, lending credence to Forrester Research's prediction that by the year 2000, there will be seven million cable modem customers.

_Patricia Tobin is Boston College's ACUTA rep._

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Teacherless classrooms in Ontario?

The _Ottawa Citizen_ (1/17/96) reports that in the hunt for $120-million in savings for the next academic year, Ontario's Community colleges are deemphasizing the role of the teacher in the learning process. A study prepared for the Colleges' Council of Presidents titled "Learning Centred Education" says educational institutions can cut teaching costs by using CD-ROM courses and computer tutorials to deliver education using support staff rather than teachers to monitor students' progress.

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Canadian National Education Network

A $500,000 pilot project will evaluate a proposed National Education Network that will bring together Canada's commercial training schools, universities, colleges, non-profit schools and school boards. (_Ottawa Citizen_ 1/5/96)

Thanks to CAUSE's electronically delivered Campus Watch for some of the information on this page.
Smart Cards are latest Olympic hopefuls

Are "smart cards" moving us to a cashless society? According to the Atlanta Journal-Constitution (1/2/96), Visa and a number of regional banks will market about a million of the cards in denominations ranging from $10 to $100 at the 1996 Summer Olympics in Atlanta. The cards contain a microchip that stores a monetary value that is reduced as purchases are made with the card.

Fiberoptic link around the globe

According to Financial Times (1/19/96), a consortium led by AT&T Submarine Systems in the U.S. and NDD Submarine Cable Systems in Japan has begun a $1.5 billion project they're calling "Flag." Fiberoptic Link Around the Globe. Fiberoptic cables will be submerged undersea from England to Japan, with landing points in Europe, the Middle East, Africa and Asia, in order to provide 120,000 64kbps circuits. Some 50 telecommunication companies from around the world have agreed to purchase capacity on the cable.

Net surfing In-flight

Information Week (1/8/96) reports that the Network Connection of Atlanta is developing InterView, an extension of the AirView in-flight entertainment system. Scheduled for delivery in June, InterView will add Net surfing to the AirView menu of movie-viewing, computer games, music videos, and faxing functions from monitors installed in passengers' seatbacks.

Every classroom in America must be connected to the information superhighway, with computers, good software and well-trained teachers. We are working with the telecommunications industry, educators, and parents to connect... every classroom and library in America by the year 2000.

-President Clinton, State of the Union Address
Malcolm Baldridge Quality Award Expands to offer Education Pilot

ACUTA members need to be aware of a new development in the Quality Management movement on college and university campuses. In the near future, your department could be asked to participate in a campus-wide or system-wide application for the most highly esteemed quality management award in the U.S.: the Malcolm Baldridge National Quality Award.

Since its creation by Federal legislation in 1987, the Baldridge Award has come to symbolize the highest achievements by American companies in quality improvement and customer satisfaction. (Three divisions of ACUTA Corporate Affiliate member AT&T have won this coveted award.) Initially open only to for-profit companies, the award’s purposes are:

1. To promote awareness of the importance of quality improvement to the national economy;
2. To recognize organizations which have made substantial improvements in products, services, and overall competitive performance; and
3. To foster sharing of best practices information among U.S. organizations.

As we all know, interest in quality management is not limited to for-profit organizations. Many colleges and universities have undertaken major quality improvement initiatives in the years preceding and following the introduction of the Baldridge Award. These efforts have focused on improving school performance, as measured by student performance, student/stakeholder success and satisfaction, performance relative to comparable schools, and efficient/effective use of resources.

This growing national interest in quality improvement by educational institutions led to a desire for expansion of the Baldridge Award to include a category for education. A preliminary pilot study was conducted in 1994, and a much broader pilot was conducted in 1995. Schools and groups of schools at all levels of education were eligible to submit Award applications, and the entire process was evaluated, although no awards were granted.

The Award criteria are designed to apply to entire schools or systems, or in some cases, a major unit within a university. The telecommunications department would not undertake such an application independently. However, as information technology is a major part of both the academic and administrative effectiveness of an institution, telecommunications will play an important role in any application. The award criteria fall into these major categories:

- Leadership
- Information and Analysis
- Strategic and Operational Planning
- Human Resource Development and Management
- Educational and Business Process Management
- School Performance Results
- Student Focus and Student and Stakeholder Satisfaction

Want to get a head start on the process and learn more about it? Check the World Wide Web site of the National Institute of Standards and Technology, which administers the Baldridge Award. The URL is: http://www.nist.gov/quality_program/. Click on "Education Pilot Criteria." If you don’t have Internet access, call or e-mail me at jsemer@acuta.org and I will send you a copy of the materials.

Speaking of e-mail, have you subscribed yet to ACUTA’s new listserves?

- telecom@acuta.org
- legreg@acuta.org

Since the listserves were initiated two weeks ago, we have already had over 160 members subscribe. Electronic networking is already starting to occur, with members asking for and receiving guidance on telecomm issues they are facing. Call or e-mail Aaron Fuehrer (afuehrer@acuta.org) at the ACUTA office for instructions on how to subscribe to this great new service—available exclusively to members and corporate affiliates of ACUTA.

Only seven weeks until the first day of Spring! See you next month...

From ACUTA Headquarters

Jeri A. Semer, CAE
ACUTA Executive Director

Does your school offer a Telecom Education degree?

In a continuing effort to serve the membership, ACUTA would like to provide up-to-date information regarding undergraduate degree and postgraduate programs in telecommunications. If your campus provides such a program, please send details to Kevin Adkins, ACUTA Telecom Resources Manager, 152 W. Zandale, Ste. 200, Lexington, KY 40503-2486. E-mail kadkins@acuta.org.
Editor's Notes...

From the realm of the amazing (via Edupage): Check out The Atlantic Monthly web site (http://www2.theatlantic.com/atlantic/atweb/flashbk/computer/tech.htm). You’ll find reference to two articles with some startling predictions. In 1945 (yes, that’s 51 years ago) Vannevar Bush, a former Massachusetts Institute of Technology president and Director of the Wartime Office of Scientific Research and Development, urged scientists to turn their attention away from war and consider how to make the vast store of human knowledge accessible and useful. The “info-structure” Bush described—including a proposal for what is now known as hypertext—has been realized in the global computer network we call the Internet.

Two decades later, Martin Greenberger, a computer scientist at MIT’s School of Industrial Management, made predictions about the role computers would likely play in our society. In “The Computers of Tomorrow” (Atlantic Monthly, May, 1964), Greenberger suggests the possibility of an “information utility,” raises the question of government regulation, and predicts electronic banking and computer-managed financial markets. Greenberger envisioned online services offering home shopping, library research, publishing capabilities, and even computerized “communities.” Interested? An in-depth interview with Greenberger will be featured in the March/April issue of Educom Review. I’ll let you know what he says about tomorrow! ...PLEASE send me your campus news! Pat Scott, (606)278-3338; e-mail pscott@acuta.org.

Position Available
Abilene Christian University
Senior Network Engineer

Responsibilities: Provides expert support to assist in software, hardware, & network design, inc. problem resolution, setup, & advice; provides expert support to faculty/staff for more difficult configurations, testing, & problem-solving; tests & evaluates new software, networks, technology; serves as team leader/support on new technology projects.

Qualifications: BA/BS, pref. in computer sci, EE, or closely related field; prof. engineer (EE) is preferred. Must be familiar with communications construction standards including EIA, TIA, etc. 1–2 yrs PC/Mac/Unix comp analysis/support; 3–5 yrs data network analysis/support using ethernet, fiber optics, ATM, TCP/IP, Novell in large-scale networks; 1–2 yrs project management.

Contact: Jim Trietsch, Dir., Info. Tech., Abilene Christian Univ., ACU Station, Box 8460, Abilene, TX 79699-8460

For Sale
NEC-2400 PBX

- Equipped for 64 digital stations, 240 single line stations
- 2 T-1 spans
- 24 CO trunks, 8 DID trunks
- 2 eight-party conference cards
- console
- PC maintenance terminal
- manuals
- 70+ digital stations
- 250 single line stations
- Software version SE ISS 03.04 installed in 1989

Contact Bob Leone, Pima Co. Comm. College Ph. (520) 573-2717; e-mail rleone@pimacc.pima.edu

Position Available
Central Missouri State University
Manager of Telecommunications

Responsibilities: Manages operational, financial, & personnel activities of telecommunications unit. Responsibilities include LANs/WANs to support interactive voice, data, & video exchanges throughout intracampus network.

Qualifications: B.S. deg. or equivalent and minimum 3 years exp. in telecommunications & data processing. Relevant mgmt. exp. necessary. Familiarity with Northern Telecom DMA-100 and associated Customer Data Change software & equipment processing orders is a plus.

Position now open. Salary commensurate with qualif./exp. Formal review of apps begins Feb. 21; search will remain open until position is filled. For more info, call Mel Franz (816) 543-4279.

Apply to: Mr. Corey Wendel, Human Resources, Administration 190, CMSU, Warrensburg, MO 64093.

Women & minorities encouraged to apply. AA/EEO/ADA

For Sale
Voice Mail System

- Voicemail International (VMI)
- Magellan Model H 7660C
- 48 Ports
- 150 hours of speech disk storage
- Software version 5.13
- Installed in 1990

Contact Larry Liddle, Mgr., Cust. Svc., Computing & Communications Svcs., Univ. of Illinois, University Inn, 302 East John St., Champaign, IL 61820; Ph. (217) 333-8499; Fax (217) 333-9758; e-mail: liddle@uiuc.edu
Message from the President

In the Spring of 1994, ACUTA contracted with Fetzer-Kraus, Inc. Research and Publishing, to conduct a Member Needs Assessment Survey. The purpose of this survey was to assess the needs and preferences of ACUTA members for services from the Association. The report and accompanying data were completed in early 1995.

The questions covered the areas of demographics, experience in telecommunications, institutional needs, departmental needs, educational programs, local events, on-line access, and publications.

In the Spring of 1995, the ACUTA Board and committee chairs used the results of this survey in an intensive strategic planning session. We reviewed the draft Strategic Plan, re-examined and reaffirmed our goals, and developed specific action plans to achieve these goals. All of ACUTA's committees, as well as the staff, have been using this Strategic Plan as a road map for their activities since it was approved by the Board in July, 1995.

The Member Needs Assessment results lead to a number of actions taken by the Association during the past year:

- Development of the ACUTA Home Page on the World Wide Web
- Development of electronic discussion groups (listserves) to enable members to network via the Internet.
- Focus of quarterly seminar topics based on input gathered via the survey
- Scheduling a local ACUTA event in the Northeast for 1995 and 1996
- Increasing newsletter content on regulatory issues, with a major regulatory focus on our World Wide Web site

Many other actions have been introduced or are currently under development as a result of feedback received from the membership via this survey.

Since many ACUTA members contributed to the results by responding to this survey, we thought you would be interested in seeing a summary of the major findings.

The Board of Directors is committed to continuing to assess the needs and preferences of ACUTA members on an ongoing basis, through mail, fax and e-mail surveys, focus groups, and other means. We encourage your input, for it is only through your participation that ACUTA can be truly responsive to the needs of our members.

David E. O'Neill
Washington State University
President
ACUTA surveyed by mail a sample of more than one-half of its primary voting members in the Spring of 1994. More than 70% of the individuals in the randomly-selected sample returned the four-page questionnaire. The response is statistically representative of ACUTA members in every region of the country and a good representation of both primary voting member and institutional characteristics and needs. The survey was designed to assess members' educational needs and related preferences.

Needs differ primarily by size of institution, based on number of students. Generalizing from the survey response, slightly more than one-third of ACUTA's member institutions have fewer than 3,000 students. One-third have 3,000 to 10,000 students, and 31% have more than 10,000 students. The wide range of student body sizes, from fewer than 100 full-time equivalent students to more than 50,000, suggests that, whatever the expressed needs of primary voting members, there is likely to be a wide variety of institutional needs related to differences in infrastructure.

Institutional affiliation and related mission and infrastructure, is closely linked to size of student body. Among schools with fewer than 3,000 full-time equivalent students, 37% are independent non-profit and 34% are church-affiliated. Only 21% are state or Federal institutions. Schools with 3,000 to 10,000 students are almost equally divided between state or Federal institutions and private (church-affiliated or independent) institutions. Among schools with more than 10,000 students, 77% are state or Federal institutions.

The typical ACUTA primary voting member, represented by 71% of survey respondents, is the most senior person on campus directly responsible for the voice, data, and other activities that make up his or her job. Almost one-half the primary voting members (48%) have a title of Director and another 7% are titled assistant or associate director. Another 29% have the title of Manager or Administrator and 3% are assistant managers or supervisors. A relatively small group, probably 5% of all primary voting members, is titled Vice Chancellor or Assistant Vice Chancellor. Another 6% have various titles ranging from telecommunications coordinator to administrative assistant.

Most survey respondents, 95%, report their departments are responsible for institutional telephone services. The second most common responsibility is student resale; 66% of departments have this responsibility. Almost one-half, including approximately two-thirds of the departments at institutions with more than 10,000 students, have a responsibility for campus LANs and for interactive voice response systems. Only one-fourth of the departments represented in the survey have responsibilities for multi-location MANs and/or WANs, for custom-built or private networks, for CATV, and for interactive video.

The largest group of members has responsibilities that include voice, data, and other activities. Approximately one-half of the primary voting members, 46% of those surveyed, have functional responsibilities that cover voice, data, and other activities. A significant minority, 25% of all respondents and including 35% of those who represent departments with fewer than three full-time employees, have responsibilities that include voice and other activities, but no data activities. A relatively small group of members, represented by 11% of survey respondents, report that their responsibilities cover voice and data activities but no other activities. Approximately 17% of respondents, including 28% of those who represent the smallest departments, have a responsibility for voice activities only.

Educational attainment among primary voting members is mixed. Approximately 75% of ACUTA's members have a four-year degree, including almost one-third who have one or more advanced degrees. Members without a bachelor's degree, 24% of survey respondents, are somewhat more likely to represent institutions with fewer than 3,000 students and departments with fewer than three full-time employees. Larger schools, and larger departments, are most likely to be represented by an ACUTA member who has an advanced degree: 45% of the respondents representing departments with more than 15 full-time employees have advanced degrees.

There is a gender gap among primary voting members, evidenced by differences in responsibility, title, and educational attainment. Primary voting members who are male are almost twice as likely as female primary voting members to represent departments that have a responsibility for LANs (58% compared with 29%), for MANs or WANs (31% compared with 17%), and for custom networks (31% compared with 17%). Males are more likely to have responsibilities that include voice, data, and other activities (52% compared with 35%); females are more likely to have a responsibility for voice activities only (32% compared with 14% of males). Males are more likely than females to have a title of director or chancellor (61% compared with 41%). Males responding to the survey are more likely to have a 4-year degree (81% compared with 66%) and are more likely to have an advanced degree (38% compared with 22%).

81% 66%
The majority of primary voting members share three or more of six typical characteristics: a title of Director, Manager, or Administrator (77% of survey respondents), member of a department staffed full-time by two or more people (83%), responsibilities that include activities in addition to telephone voice communications (82%), being the senior person with those given responsibilities (71%), having a four-year degree or more education (76%), and having five or more years of telecommunications experience (88%). However, primary voting members who share all six characteristics are only 30% of all survey respondents. The challenge to ACUTA is to design and target services to meet the needs of its diverse membership.

The larger the institution, the more strategic its telecommunications asset. Institutions with 10,000 or more students are most likely to have a senior administration that views telecommunications as a service and a major strategic asset. Among schools this size, 35% view telecommunications as a major strategic asset. In comparison, among institutions with fewer than 3,000 students, only 15% of respondents reported that senior administrators view telecommunications as a major strategic asset. Among these smaller schools, 38% of respondents report their administrations view telecommunications as a service only. Among the schools with more than 10,000 students, only 13% of respondents reported their administrations view telecommunications as a service only. In the opinion of 44% of the survey respondents, telecommunications plays a minor role in their institution’s long-range plan. However, one-third of the respondents, including 42% of respondents who represent institutions with more than 10,000 students, report that telecommunications plays a major role in the long-range plan.

The single most important reason for the institution's continuing membership in ACUTA, in the opinion of the primary voting member, is informal access to other telecommunications administrators. Other important reasons are access to the latest technical information and access to timely updates on regulatory changes.

The most compelling reasons for continuing membership in ACUTA for the primary voting members are networking with peers on a national level and networking with peers in my state or region.

Personal reasons for continuing membership in ACUTA are closely tied to the institutional reasons for membership. The most compelling reasons for the primary voting members are networking with peers on a national level and networking with peers in my state or region. In general, representatives of larger institutions want networking opportunities and representatives of smaller institutions want access to technical information.
Members' needs for continuing education are strongest in the areas of interactive voice/video networks, wireless communications, video teleconferencing, and distance learning networks. Most members want a management overview or an operational perspective. Regarding staff needs for continuing education, there is again a strong need in the areas of interactive voice/video networks, wireless communications, and video teleconferencing. Although the level of need shifts toward a basic introduction to these topics, the emphasis is on an operational perspective.

Regarding continuing education at local events, there is a sharp contrast between representatives of institutions with fewer than 3,000 students and representatives of institutions with more than 10,000 students. Representatives of smaller schools want continuing education in the form of hands-on local or regional events. Representatives of larger schools want documentation, either as hard copy or online. This response suggests local events are most likely to be successful in the northeastern United States. The majority of respondents (58%) prefer a local event of 1-2 days duration, within driving distance of their campus, replacing one of ACUTA’s or similar seminars.

On-line electronic access and a local or regional educational event are almost equally preferred formats for members' personal continuing education and for the continuing education of other departmental staff. However, the smaller the institution or department represented by the primary voting member, the greater the preference for a local or regional event. Respondents representing larger institutions and departments prefer on-line electronic access over a local or regional event, for their personal continuing education as well as for staff continuing education.

ACUTA News is well-read by almost all members. The great majority (80%) of survey respondents read all 12 issues in the past year. Another 15% read most issues. Members in general agree with ACUTA's leadership on what types of information, published in ACUTA News, are important. Both groups like the Hot Topic updates on regulatory issues, products, and services. Both groups like member-contributed articles on the difficulties and/or success of implementations.