

ROUGH EDITED COPY
PEPNET-SOUTH
MARCH 23, 2010

BLACKBOARD PRESENTATION

CAPTIONING PROVIDED BY:
ALTERNATIVE COMMUNICATION SERVICES, LLC
PO BOX 278
LOMBARD, IL 60148

THIS IS BEING PROVIDED IN A ROUGH-DRAFT FORMAT. COMMUNICATION ACCESS REALTIME TRANSLATION (CART) IS PROVIDED IN ORDER TO FACILITATE COMMUNICATION ACCESSIBILITY AND MAY NOT BE A TOTALLY VERBATIM RECORD OF THE PROCEEDINGS.

>> MARCIA KOLVITZ: HELLO AND WELCOME TO THE FINAL PRESENTATION OF THE FIRST DAY OF A 2-DAY WEBCAST THAT FOCUSES ON ONLINE MEDIA AND ACCESS FOR INDIVIDUALS WHO ARE DEAF OR HARD OF HEARING. WE HAD A SLIGHT TECHNICAL PROBLEM SO SOME OF YOU MAY HAVE BEEN DELAYED IN JOINING THIS PRESENTATION. BUT IT'S ALL REPAIRED NOW. THANK YOU.

BECAUSE WE'RE USING THE WEBCAST FORMAT. WE'VE THOUGHT ABOUT DIFFERENT WAYS OF CREATING INTERACTION AMONG PARTICIPANTS. IT'S REALLY DIFFICULT WHEN ALL OF YOU ARE OUT THERE THAT MIGHT HAVE QUESTIONS OR COMMENTS TO MAKE BUT YOU REALLY CAN'T CALL THEM IN OR SEND US AN E-MAIL. SO WE'VE CREATED ESSENTIALLY A DISCUSSION TOOL ONLINE THROUGH A PROGRAM CALLED LEARNCENTRAL WHICH IS A SOCIAL NET LEARNING NETWORK FOR EDUCATION. PLEASE REFER TO THE CONFIRMATION E-MAIL YOU RECEIVED IN ORDER TO LOGIN TO THIS SITE. WE ENCOURAGE TO YOU USE IT. OUR PRESENTERS WOULD LOVE TO BE ABLE TO RESPOND TO YOUR QUESTIONS.

THE 5TH AND FINAL PRESENTATION TODAY WILL FOCUS ON BLACKBOARD, AN ELECTRONIC PRESENTATION PLATFORM. WE HAVE THREE PRESENTERS. MARK CAMP FROM JACKSONVILLE UNIVERSITY IN JACKSONVILLE, ALABAMA. CINDY CAMP WHO IS BOTH A DISABILITY SPECIALIST IN DEAFNESS AT THE SAME INSTITUTION AS WELL AS PEPNET SOUTH AND JERRY RIEHL, THE IT MANAGER FOR VIRTUAL CLASSROOMS WITHIN THE OFFICE OF INFORMATION TECHNOLOGY AT THE UNIVERSITY OF TENNESSEE. WELCOME MARK, CINDY, AND JERRY.

>> OKAY. WHEN WE THOUGHT ABOUT DOING A PRESENTATION INVOLVING BLACKBOARD AND ACCESSIBILITY, THE FIRST THING THAT OCCURRED TO US THAT WE NEEDED TO DO WAS SORT OF DEFINE THOSE PARAMETERS. AND SO THAT'S WHAT WE'RE GOING TO DO TO START WITH HERE. AND AS MY WIFE AND I CINDY, WE'LL SWITCH OUT FROM TIME TO TIME ALSO WITH JERRY.

BLACKBOARD ITSELF IS AN ONLINE COURSE MANAGEMENT TOOL. IT'S BASICALLY A TOOL FOR MANAGING CONTROLLING AND DELIVERING INFORMATION TO YOUR STUDENTS. AND WE'RE GOING TO BE TALKING ABOUT THAT IN RELATION TO MAKING THAT WORK FOR STUDENTS WITH DISABILITIES, BUT NOT JUST FOR STUDENTS WITH DISABILITIES. FOR ALL STUDENTS.

IT'S PRIMARILY DESIGNED, FOCUSED AROUND A SYNCHRONOUS COMMUNICATIONS WHICH IS BY FAR AT LEAST JACKSONVILLE STATE THE MOST COMMON USAGE FOR BLACKBOARD. IT ALSO HAS SYNCHRONOUS CAPABILITIES AND DISCUSSION INFORMATION AS WELL. CAN BE -- LET ME SWITCH OVER HERE. A FEW COMPONENTS THAT YOU'LL FIND IN BLACKBOARD IS AN ABILITY TO STORE DOCUMENTS AND DELIVER THEM, DISCUSSION BOARD, CHAT FEATURE WHICH IS ONE OF THE SYNCHRONOUS TOOLS, ANNOUNCEMENTS, SELF AND PEER ASSESSMENT WHICH CAME IN BLACKBOARD 9 WHICH WE'RE EXCITED ABOUT, JOURNALS AND BLOGS AND, OF COURSE, THE ABILITY TO GIVE TESTS. MOVE ON AND LET CINDY TAKE OVER FOR A SECOND.

>> NOW THAT YOU UNDERSTAND WHAT BLACKBOARD IS, WE THOUGHT IT WAS AN IMPORTANT TO TALK ABOUT WHAT ACCESSIBILITY IS. BECAUSE WE ALL MAY HAVE VARYING DEFINITIONS OF THE WORD "ACCESS" DEPENDING ON YOUR BACKGROUND, EDUCATION AND YOUR EXPERIENCE. FOR SOME PEOPLE, WHEN THEY HEAR THE WORD "ACCESSIBILITY, THEY THINK OF A SPECIFIC DISABILITY THAT THEY HAVE WORKED WITH AND HOW THINGS CAN BE MADE ACCESSIBLE FOR THAT PERSON. WE WANT A BROADER DEFINITION. SO I WENT TO AN ONLINE DICTIONARY AND ASKED THEM THE FOLLOWING: ACCESSIBILITY IS EASILY APPROACHED OR ENTERED. AND I THINK OF THAT IN RELATION TO DISABILITIES IS YOU HAVE A PERSON WHO IS IN A WHEELCHAIR AND THEY'RE GOING INTO A BUILDING THAT HAS STEPS TO THE FRONT ENTRANCE THAT'S NOT EASILY ACCESSIBLE. THEY CAN APPROACH IT SO THEY CAN ENTER THAT WAY.

ANOTHER DEFINITION IS QUALITY OF BEING USEFUL OR CONVENIENT. OFTEN WE MAKE THINGS ACCESSIBLE BUT WE DON'T COULD IT -- DON'T DO IT IN A CONVENIENT WAY. FOR EXAMPLE, THE BUILDING THAT HAS STEPS TO THE FRONT ENTRANCE, A LOT OF ARCHITECTS MIGHT NOT WANT TO MAKE THAT FRONT ENTRANCE ACCESSIBLE SO THEY PUT A RAMP AROUND THE SIDE OR IN THE BACK THUS, THE PERSON IN THE WHEELCHAIR NOW CANNOT

ENTER WHERE EVERYONE ELSE DOES SO THEY HAVE TO GET AROUND TO A DIFFERENT ENTRANCE WHICH MAY NOT BE AS CONVENIENT: THINK IT'S ALSO IMPORTANT IT'S ALSO IMPORTANT TO LOOK AT INACCESSIBILITY OR UNAVAILABILITY. THESE ARE THE OPPOSITE OF WHAT WE WANT. MEANING THAT SOMETHING IS NOT AVAILABLE WHEN NEEDED. SO THE ISSUE OF TIME ACCESS IS WHEN ARE WE ABLE TO ACCESS THE INFORMATION OR THE PLACE? SO FOR OUR PRESENTATION, ACCESSIBILITY IS PROVIDING EQUAL TO INFORMATION FOR ALL STUDENTS IN A CONVENIENT AND TIMELY MANNER.

>> THIS IS A VERY LARGE PROGRAM. SO UNDERSTANDABLY, IT KIND OF MOVES SLOW SOMETIMES BUT IT DOES MOVE. SOME OF THE THINGS THAT THEY'VE BEEN CHANGING AND WORKING ON, THE USER INTERFACE HAS BEEN REDESIGNED TO QUALIFY SOME OF THIS. I'LL BE TALKING BLACKBOARD ABOUT FROM THE POINT OF VIEW OF BLACKBOARD VERSION 9. JERRY I THINK WILL BE REFERRAL TO MOST THINGS FROM BLACKBOARD VERSION 8 AS WELL SO YOU GET A LITTLE TASTE OF BOTH. BUT THE REDESIGNS HAVE BEEN FOCUSED AROUND MAKING IT MORE INTUITIVE FOR THE STUDENTS. BEHIND THE SCENES AS WELL THEY HAVE RECODED A LOT OF BLACKBOARD. AND THE INTENTION THERE IS THAT WE MAKE IT EASIER ON THE DESIGN, EASIER ON THE BANDWIDTH AND EASIER ON SCREEN READERS.

THIS IS ONE OF THOSE THINGS WHERE WE CAN SAY IT HONESTLY DOES BENEFIT EVERYONE EQUALLY. YES, IT MADE IT EASIER ON SCREEN READERS BUT IT MAKES IT EASIER ON EVERYONE IN THE END AND THAT GETS US TO THE WHOLE CONCEPT OF UNIVERSAL DESIGN WHICH, OF COURSE, GOING BACK TO CINDY'S REFERENCE, THE PERSON IN THE WHEELCHAIR COMES UP AND FINDS A RAMP AT THE FRONT OF THE BUILDING, IT'S CONVENIENT FOR THEM, IT'S ACCESSIBLE FOR THEM, BUT IT'S ALSO CONVENIENT FOR EVERYBODY. THAT'S WHAT WE WANT TO LOOK AT AND SHOW THAT THERE ARE WAYS TO DESIGN THINGS AND WAYS TO DEAL WITH COURSES THAT DON'T JUST MAKE IT EASIER FOR PEOPLE WITH ACCESS, BUT FOR EVERYBODY.

>> AND WE WANT TO TALK ABOUT ISSUES AN ACCESSIBILITY OF BLACKBOARD. THIS IS BY NO MEANS AN EXHAUSTIVE LIST, BUT BY WORKING WITH STUDENTS AND WITH INSTRUCTORS. THESE ARE SOME OF THE MOST COMMON ISSUES WE FOUND. SOME HAVE SIMPLE ANSWERS BUT IT'S JUST A MATTER OF KNOWING WHAT THE ANSWERS ARE. SINCE WE'RE TALKING ABOUT ACCESS FOR DEAF AND HARD OF HEARING STUDENTS, OBVIOUSLY THE FIRST ONE THAT WOULD COME TO MIND IS THAT ALL OF THE TEXT -- EXCUSE ME, ALL THE AUDIO NEEDS TO BE PROVIDED IN A TEXT FORMAT.

IF THE AUDIO INCLUDES VIDEO, THE BEST WAY TO HAVE THIS IS TO HAVE CAPTIONS THAT ARE TIME SYNCED WITH THAT VIDEO SO THAT THE DEAF AND HARD OF HEARING INDIVIDUAL CAN SEE THE CAPTIONS AT THE SAME TIME AS

THEY ARE WATCHING THE LECTURE. ONE WAY TO MAKE IT ACCESSIBLE IS TO PROVIDE THE TEXT THAT THE STUDENT COULD DOWNLOAD AND IT WOULDN'T BE TIME SYNCED WITH THE VIDEO, BUT THIS IS REALLY NOT THE BEST OPTION BECAUSE IT'S NOT FULL ACCESSIBILITY. ANOTHER ONE THAT WE THINK OF OR PERHAPS WE DON'T THINK OF ENOUGH IS ALL OF THE VISUAL INFORMATION NEEDS TO BE DESCRIBED FOR STUDENTS WITH VISUAL IMPAIRMENT. A LOT OF TIMES TEACHERS PUT UP POWER POINTS OR OTHER GRAPHICS THINKING THIS WILL MAKE THE LEARNING ENVIRONMENT MORE FRIENDLY. AND IT WILL FOR SOME STUDENTS. BUT FOR STUDENTS WITH A VISUAL IMPAIRMENT WHO CAN'T SEE THESE, THEY NEED IT DESCRIBED SO THAT THEY CAN UNDERSTAND AND GAIN THAT BENEFIT AS WELL.

ANOTHER IS MAKING SURE HOW YOU UP LOAD PDF DOCUMENTS. ADOBE ACROBAT IS A WONDERFUL PROGRAM FOR CONVERTING DOCUMENTS INTO DIGITAL FORMAT. HOWEVER, IT CAN BE ONE OF THE MOST ACCESSIBLE OR THE MOST INACCESSIBLE, DEPENDING ON HOW IT'S USED. ADOBE DOCUMENTS END WITH.PDF. A LOT OF INSTRUCTORS USE THESE BECAUSE THE STUDENTS SEE THE ORIGINAL FORMAT AND THEY CAN'T CHANGE THE TEXT. HOWEVER, IF THEY ARE SAVED AS A GRAPHIC, THIS PRESENTS A HUGE PROBLEM FOR SCREEN READERS. BECAUSE STUDENTS WHO CAN SEE WILL SEE THE DOCUMENT AND THEY'LL BE ABLE TO READ IT. HOWEVER, COMPUTER SEES IT AS A PICTURE AND THEY CAN'T INTERPRET THE WORDS. VERY SIMPLY, IT CAN ALSO BE SAVED AS A TEXT DOCUMENT BY USING OPTICAL CHARACTER RECOGNITION SOFTWARE AND THEN IT BECOMES ACCESSIBLE TO ALL STUDENTS. ONE THING INSTRUCTORS NEED TO BE SURE TO DO, ANY TIME THEY UPLOAD A DIGITAL DOCUMENT, IT NEEDS TO BE PROVED FOR ACCURACY. BECAUSE ANY TIME THE FORMAT CHANGES, COMPUTERS MAKE ERRORS AND IT CAN MISREAD A CHARACTER SO THAT WORDS CAN BE MISSPELLED OR THE WRONG WORDS COULD BE INSERTED ACCIDENTALLY. SO AGAIN INSTRUCTORS NEED TO DOUBLE-CHECK THESE.

THE OTHER ISSUES TO CONSIDER ARE THE FONTS THAT ARE USED. A LOT OF PEOPLE ENJOY USING REALLY COLORFUL OR PRETTY FONTS AND THEY DON'T THINK ABOUT HOW EASY THAT FONT SALE IS TO READ, HOW EASY THE COLOR MIGHT BE TO ACCESS, OR EVEN THE BEST SIZE FOR STUDENTS TO SEE. IT'S ALWAYS IMPORTANT NOT TO MAKE THE COLOR CONTAIN INFORMATION THAT'S NOT THERE IN ANOTHER FORMAT. SO BLIND STUDENT IS USING A SCREEN READER TO READ THIS AND ANYTHING IN RED IS A DEFINITION THAT YOU SHOULD REMEMBER FOR THE TEST. THE BLIND STUDENT WON'T HAVE ACCESS TO THAT INFORMATION. WE NEED TO ALSO BE AWARE THAT IT'S NOT JUST STUDENTS WITH DISABILITIES. MANY INSTRUCTORS ON OUR CAMPUS WANT THE SIZE OF THE FONT TO BE LARGER BECAUSE AS WE GET OLDER, OUR SIGHT DETERIORATES AND WE NEED A LARGER CLEARER FONT STYLE. SO REALIZE THIS IS NOT JUST FOR STUDENTS WITH DISABILITIES.

IT WILL BENEFIT ALL STUDENTS. AND ALL INSTRUCTORS.

ANOTHER THING TO CONSIDER IS A DISCUSSION BOARD AS OPPOSED TO A LIVE CHAT FEATURE. WE WANT TO THINK ABOUT OUR STUDENTS WHO MAY HAVE MOBILITY ISSUES AND MAY NOT BE ABLE TO TYPE VERY QUICKLY. WE MAY HAVE STUDENTS WHO HAVE LEARNING DISABILITIES AND HAVE ISSUES WITH USING ENGLISH. DEAF STUDENTS SOMETIMES WILL HAVE PROBLEMS WITH WRITTEN ENGLISH. SO FOR A VARIETY OF STUDENTS, HAVING A LIVE DISCUSSION MAY NOT BE THE BEST WAY TO ACCESS THEIR KNOWLEDGE TO THE INFORMATION IN F THEY'RE FORCED TO TYPE IN REALTIME, THEY MAY NOT BE ABLE TO KEEP UP WITH THE SPEED OF THE CONVERSATION AND THUS, THEIR ANSWERS MAY NOT REALLY SHOW THEIR TRUE KNOWLEDGE.

DISCUSSION BOARDS ARE SET UP WITH ASYNCHRONOUS AND WITHIN THE CONTEXT OF A FEW DAYS OR A WEEK STUDENTS NEED TO RESPOND TO THAT. THIS GIVES STUDENTS THE ABILITY TO PROOFREAD WHAT THEY'RE WRITING, GIVES THEM THE TIME TO TYPE IT OUT AND TO DOUBLE-CHECK THAT IT POSTED CORRECTLY. SO THIS IS A VERY EASY FIX TO A PROBLEM THAT DOESN'T HAVE TO BE A PROBLEM. BLACKBOARD IS GOING TO HAVE ISSUES JUST LIKE ANY OTHER COMPUTER PROGRAM AND ONE OF THE THINGS TO BE AWARE OF ARE THE SECURITY CERTIFICATES. ONE PROBLEM WE HAVE NOTICED IS THAT NOT EVERYTHING IN BLACKBOARD CONFORMS WITH THE STANDARDS OF THE NEWER OPERATING SYSTEMS. SO YOU MAY BE IN THE CLASSROOM YOU MIGHT BE TRYING TO GET INTO A DOCUMENT THAT YOUR INSTRUCTOR HAS POSTED AND A WARNING WILL POP UP. IT'S A LITTLE BAR THAT COMES UP ACROSS THE TOP OF THE BROWSER THAT SAYS OH, YOU NEED TO CLICK THIS TO ALLOW ACCESS IT MIGHT BE A VIRUS OR SOMETHING YOU DON'T WANT TO ALLOW. SO MOST STUDENTS THAT'S NO PROBLEM. THEY'RE USED TO IT AND THEY QUICK OKAY. A STUDENT USING A SCREEN READER, THIS CAN BE A SIGNIFICANT ISSUE BECAUSE THEY DON'T SEE THIS LITTLE BAR POP UP. AND THE SCREEN READER CAN GET TO IT.

BUT, IF THE STUDENT DOESN'T KNOW THAT IT'S THERE, THEY CAN WASTE A LOT OF TIME TRYING TO FIGURE OUT WHAT'S GOING ON. WE HAD THIS HAPPEN RECENTLY. AND ONCE A SIGHTED PERSON SAID OH, IT'S A SECURITY CERTIFICATE ISSUE, WE SOLVED THE PROBLEM IN A MATTER OF FIVE SECONDS. BUT THE BLIND STUDENT HAD BEEN STRUGGLING WITH THIS FOR ABOUT 5 OR 10 MINUTES BEFORE THEY CAME TO US FOR HELP. ALSO BE AWARE THIS CAN AFFECT OLDER STUDENTS OR THOSE WHO ARE NOT AS COMFORTABLE WITH TECHNOLOGY. THEY MAY DECIDE OH, I DON'T WANT TO ALLOW THIS. IT'S A VIRUS. I DON'T KNOW WHAT THIS MEANS. SO AGAIN, IT AFFECTS A LOT OF DIFFERENT STUDENTS.

AND FINALLY, IT'S ALWAYS A GOOD PRACTICE TO MAKE SURE THAT ANY

GRAPHICS CONTAIN AN ALT TEXT. THIS IS SOMETHING VERY SIMPLE TO PUT IN IT'S GOING TO HELP STUDENTS WITH SCREEN READERS KNOW WHAT THE GRAPHIC ARE. IT'S ALSO GOING TO HELP THE STUDENTS WHO FOR SOME REASON AREN'T ABLE TO DOWNLOAD THE GRAPHICS. ALT TEXT WILL LET THEM KNOW WHAT INFORMATION THEY'RE MISSING AS WELL. AS I STATED, THIS IS BY NO MEANS AN ALL INCLUSIVE LIST. BUT THESE ARE SOME OF THE MOST COMMON PROBLEMS THAT WE SEE AND THAT TEACHERS NEED TO BE AWARE OF. AT THIS POINT, WE'RE GOING TO TURN IT OVER TO JERRY AND LET HIM TALK A BIT ABOUT MULTIMEDIA.

>> JERRY RIEHL: YOU'D THINK I'M A TECHNOLOGY PERSON. LET ME FIRST GIVE YOU A LITTLE BIT OF A HISTORY OF BLACKBOARD WHICH WILL PROVIDE FOR YOU SOME CONTEXT FOR THE NEXT 10 TO 15 MINUTES OF THIS PRESENTATION. WE'VE BEEN HERE AT THE UNIVERSITY OF TENNESSEE IN KNOXVILLE WE'VE BEEN USING BLACKBOARD FOR WELL OVER 10 YEARS, PROBABLY SINCE THE LATE 90S. WE'RE WE ONE OF THE FIRST ADOPTERS OF BLACKBOARD AND I THINK I CAN RECALL WHEN WE DID EVALUATIONS, OF COURSE, MANAGEMENT SYSTEMS, LOOKING AT PRIMARILY THE MOST SIMPLE WAY FOR FACULTY TO POST HTML DOCUMENTS FOR ACCESS OVER THE WEB. THIS WONDERFUL THING THAT WAS BEGINNING TO GROW AND FLOURISH IN EDUCATION. AND SO WE REALLY OBSERVED OVER TIME FACULTY POSTING HTML DOCUMENTS, POSTING ALL OF THOSE WONDERFUL WORD DOCUMENTS BECAUSE AT THE TIME, FACULTY PROBABLY USED BLACKBOARD AS A DOCUMENT DELIVERY SYSTEM. AND FORTUNATELY WE EVOLVED INTO A PLACE WHERE FACULTY VIEWED IT MORE AS A LEARNING DELIVERY SYSTEM. AND SO WE WENT THROUGH ALL OF THOSE TRIALS AND TRIBULATIONS RELATED TO PDF DOCUMENTS AND FACULTY POSTING THEM AS IMAGES AND TEXT. AND TRYING TO TACKLE ALL OF THOSE ISSUES ASSOCIATED WITH ACCESSIBILITY OF THOSE ITEMS.

WHAT WE'VE BEGUN TO SEE MORE AND MORE OF WITH THIS PROLIFERATION OF NEW MEDIA, NEW RICH MEDIA, NEW MULTIMEDIA IS MORE AND MORE FACULTY ARE USING VIDEO, USING AUDIO, USING THINGS THAT ARE OUT THERE ON THE WEB LIKE YOUTUBE. USING I TUNES VIEW. USING VOICEOVER POWER POINTS. WE'RE SEEING AN AWFUL LOT OF THAT. IN FACT, WE HAVE A GRADUATE NURSING PROGRAM WHICH IS DELIVERING THEIR DISTANCE PROGRAM ALMOST EXCLUSIVELY USING BLACKBOARD AND VOICEOVER POWER POINT. WE ALSO HAVE LECTURE CAPTURE USING MEDIA SITES. SO YOU CAN SEE THE FACULTY ARE USING BLACKBOARD AS A VESSEL TO DELIVER ALL OF THOSE KINDS OF MEDIA. AND IT REALLY CREATES SOME INTERESTING CHALLENGES.

I WANTED TO SHARE WITH YOU SOME INTERESTING PERSPECTIVES ABOUT MULTIMEDIA AS AN INSTRUCTIONAL DESIGNER, WE WORK WITH FACULTY ALL THE TIME TO ADDRESS STUDENTS LEARNING STYLES AND, YOU KNOW, CONSIDER THE VARIOUS WAYS IN WHICH STUDENT LEARNS. SO THESE ARE JUST A FEW INTERESTING QUOTES IN SOME CASES THE BEST WAY TO ENHANCE ACCESSIBILITY MAY BE TO USE MORE MEDIA, USING THE RIGHT WAY, MULTIMEDIA IS A CRITICAL RESOURCE FOR ACCESSIBILITY.

SECOND STUDENT PERSPECTIVE MULTIMEDIA IS A VERY, VERY POWERFUL LEARNING TOOL AND IT'S CERTAINLY MY PREFERRED WAY OF LEARNING. IT HAS ADVANTAGES OVER ORAL LECTURES BECAUSE I CAN LISTEN A LECTURE BUT I CAN'T READ MY WRITING AFTERWARDS. IF I PRESENT SOMETHING IN MULTIMEDIA FORMAT, ALL THERE FOR ME, I CAN GO BACK TO IT AND IT'S CLEAR AND I CAN UNDERSTAND THIS. AND THAT'S FROM A STUDENT WHO HAS DYSLEXIA.

SO WHAT IS ALL OF THIS MEANING FOR FACULTY? I THINK THAT WE'RE ENCOURAGING THEM TO USE THESE FORMS OF MEDIA. THEY WANT TO USE THESE FORMS OF MEDIA. THEY UNDERSTAND THE INSTRUCTIONAL VALUE OF THE MEDIA. BUT SOMETIMES USING THEM ISN'T STRAIGHTFORWARD. AND IT'S -- AT FACE VALUE IT SEEMS DAUNTING AND EXTREMELY CHALLENGING. FACULTY HAVE FULL-TIME JOBS AND THAT IS TO TEACH. THEY CAN BE REALLY INTIMIDATED WHEN -- THEY SAY WELL I'VE GOT THIS THING I'D LIKE TO USE, CAN I? IF I DO, CAN ALL STUDENTS HAVE ACCESS TO IT EQUALLY? THERE'S CONFUSION OFT TIMES SURROUNDING THE IMPLICATIONS FOR THEM OF ACCESSIBILITY GUIDELINES.

I CAN RECALL WHEN I WAS AT VIRGINIA TECH PROBABLY A DOZEN YEARS AGO AND WE HAD ROLLED OUT AND IMPLEMENTED A SET OF WEB GUIDELINES THAT WE WERE ASKING EVERYONE TO ADHERE TO. AND THEY WEREN'T EARTH SHATTERING. THEY FOLLOWED SOME OF THE STANDARD 508 GUIDELINES AND SO FORTH. BUT FACULTY JUST GOT INTO A PANIC. AND THEY HAD REALLY BEGUN TO GROW ACCUSTOMED TO USING THE WEB AND BLACKBOARD SPECIFICALLY. USING THEIR CONTENT IN THAT MANNER. AND SUDDENLY THESE GUIDELINES WERE AS THROWN OUT TO THEM AND THEY DIDN'T KNOW HOW THEY WERE GOING TO MEET THOSE STANDARDS. AND IT TOOK A LOT OF CONVERSATION FOR THEM TO UNDERSTAND THAT REALLY WE WEREN'T ASKING THEM TO DO TOO MANY THINGS DIFFERENTLY AT ALL AND THAT THEY COULD PROBABLY CONTINUE TO USE MOST OF THEIR THINGS AS THEY EXISTED. SOME OF THE CHALLENGES ASSOCIATED WITH THESE SORTS OF MEDIA COME DOWN TO THE LACK OF RESOURCES OR TECHNICAL EXPERTISE. AGAIN, AS I MENTIONED FACULTY HAVE A FULL-TIME JOB AND WHILE SOMETIMES THEY WOULD LIKE TO DO CERTAIN THINGS, THEY JUST DON'T HAVE THE EXPERTISE

TO DO THEM. SOME TOOLS ARE FAR MORE CHALLENGING FOR THEM TO USE THAN WOULD REALLY BE REQUIRED. LET'S SEE.

AS WE'VE SEEN, THESE MEDIAS GROW, WE TOOK A LOOK PROBABLY ABOUT FIVE YEARS AGO, THE INNOVATIVE TECHNOLOGY CENTER, WHICH WE WERE KNOWN AS AT THE TIME, WAS REALLY A FACULTY DEVELOPMENT. UNIT. WE DID A LOT OF WORKSHOPS, A LOT OF TRAINING, A LOT OF HELPING FACULTY LEARN HOW TO DO THINGS CORRECTLY. AND WE DECIDED AT THAT TIME THAT RATHER THAN TEACH FACULTY TO FISH, MAYBE WE NEED TO FISH FOR THEM FOR A LITTLE BIT. SO WE CREATED A PRODUCTION SHOP FOR FACULTY. THEY CAN COME TO US IF THEY HAVE AN IDEA, NEED SOME LEARNING OBJECTS, NEED SOME MEDIA AND WE WILL SIT WITH THEM WITH AN OVERLAY NOW. WE DON'T DO IT ALL THE TIME. I WILL TELL YOU I WISH THAT WE DID. BUT WE'RE MAKING STEPS IN THAT DIRECTION TO ALWAYS LOOK AT THOSE PIECES OF LEARNING MATERIAL THAT WE DEVELOP FOR FACULTY THROUGH A LENS OF ACCESSIBILITY. WE'RE GETTING BETTER BUT WE'RE NOT THERE.

TYPICALLY THIS TEAM WHICH IS REALLY SURPRISED OF INSTRUCTIONAL DESIGNERS, GRAPHIC DESIGNERS. WILL SIT WITH THE FACULTY MEMBER, LOOK AT WHAT IS AVAILABLE, WHAT THEY WANT TO DO AND FIND SOME TOOLS. WE HAVE DEVELOPED OVER TIME SOME STANDARD KINDS OF THINGS THAT OUR DEVELOPERS ARE COMFORTABLE WITH AND I'LL TOUCH ON THOSE HERE IN A BIT. THE NOTION HERE IS ARE WE MAKING BABY MISSTEPS OR GIANT LEAPS OF PERFECTION IF WE'RE WAITING FOR THE GIANT LEAP OF PERFECTION, WE WOULD PROBABLY STILL BE SPINNING OUR WHEELS AND TRYING TO FIGURE OUT HOW BEST TO MANAGE THIS WHOLE THING BECAUSE IT'S A LOT. AND WE WANT TO BE SURE THAT FACULTY ARE DOING THINGS IN THE BEST WAY POSSIBLE AND IN A MANNER THAT MAKES THEIR MATERIALS ACCESSIBLE TO EVERYONE.

SO I'D LIKE TO SHOW YOU AN EXAMPLE FROM A PROJECT THAT WE DID WITH SOME FACULTY MEMBERS, IT'S A FEDERAL GRANT PROGRAM. THE OBESITY CHALLENGE IN PUBLIC HEALTH. WE WERE ESPECIALLY MINDFUL OF ACCESSIBILITY ISSUES WITH THIS PROJECT BECAUSE OF THE FEDERAL FUNDING THAT WAS DRIVING THE PROJECT. SO I'M GOING TO GO AHEAD AND SHOW YOU THIS. WE CAN TALK A LITTLE BIT ABOUT HOW THAT HAPPENED. AGAIN THIS IS ALL CONTAINED IN BLACKBOARD.

[VIDEO]

THOSE OF YOU IN RICHMOND, I GREW UP IN HAMPTON, NOT FAR FROM YOU. SO, IF ANY OF YOU TRAVEL THROUGH HAMPTON, SAY HELLO TO HAMPTON FOR ME. I'D LIKE TO TALK ABOUT THIS TITLE, OBESITY -- LET ME FOCUS ON DISPARITIES BUT LOOKING AT IT FROM A BIT OF A COMPLEX PERSPECTIVE. ONE OF THE QUOTES WE'LL SAY FROM ALBERT EINSTEIN IS BEYOND

COMPLEXITY, SIMPLICITY. THE TRICK IS YOU'VE FIRST GOT TO DEAL WITH THE COMPLEXITY AND THEN YOU GET TO THE SIMPLICITY. YOU CAN'T JUST START WITH THE SIMPLISTIC VIEW OF THE WORLD.

WHAT I'VE ENTITLED THIS IS DISPARITIES, SINNERS AND VICTIMS IN TRYING TO APPROACH SOME OF THE MORE COMPLEX ISSUES RELATED TO DISPARITIES. WE USE THE TERM VERY EASILY.

>> I THINK YOU PROBABLY GET THE NOTION THAT WHAT WE'RE LOOKING AT HERE IS FULLY CLOSED CAPTIONED VIDEO WITHIN BLACKBOARD EMBEDDED IN BLACKBOARD-EMBEDDED WITHIN BLACKBOARD. THAT PROJECT -- YOU WILL FIND IN THIS ENTIRE CLASS -- PROBABLY CONTAINS I WOULD SAY CLOSE TO 50 TO 60 OF THOSE KINDS OF LECTURES BROKEN OUT INTO SMALLER CHUNKS, AGAIN, FULLY CAPTIONED, IN THIS EXAMPLE THE TOOL OF CHOICE WAS ADOBE CAPTIVATE. ADOBE CAPTIVATE IN THIS CASE AS A REALLY EASY CONVERSION TOOL WITH A FLASH AND AGAIN ALLOWS YOU VERY QUICKLY AND WITH RELATIVE EASE TO ATTACH A FULL TRANSCRIPT INTO THAT CAPTIONING WINDOW. SO I THINK WE WERE REALLY PLEASED WITH HOW THAT TURNED OUT.

ANOTHER AREA THAT THE FACULTY ARE GRAVITATING TOWARDS LIKE GANGBUSTERS QUITE FRANKLY, IS YOUTUBE VIDEOS. IS READY-MADE. IT'S AVAILABLE FOR THEM WHEN YOUTUBE FIRST STARTED UP, YOU'LL PROBABLY RECALL EVERYONE TAKING A LOOK AND SAYING WELL THIS IS KIND OF FUN. BUT IT WAS MOSTLY ENTERTAINMENT FOR THE MOST PART. OVER THE YEARS, THE EDUCATIONAL CONTENT THAT HAS EVOLVED IN YOUTUBE IS EXTRAORDINARY. AND AGAIN IT'S VERY EASY FOR ME AS THE USER TO UPLOAD VIDEO, CREATE A LINK TO IT. WITH AN EMBED CODE IN BLACKBOARD AND A STUDENT CAN SIMPLY CLICK ON THE PLAY BUTTON AND OFTEN THEY WATCHING A YOUTUBE VIDEO WITHIN BLACKBOARD. YOUTUBE JUST RECENTLY -- AND I HAVEN'T LOOKED AT IT YET. BUT I'M ANXIOUS -- I BETTER HUSTLE. I'M ANXIOUS TO TAKE A LOOK. BUT ON THE 4TH OF MARCH, YOUTUBE JUST ROLLED OUT THEIR AUTO CAPTIONING SERVICE FOR ALL VIDEOS. SO IT'S -- IT SOUNDS GREAT. THERE ARE LIMITATIONS. THEY'RE USING SPEECH-TO-TEXT TRANSLATIONS, TECHNOLOGY. WE DON'T KNOW FAR FROM PERFECT BUT HOWEVER, IN TERMS OF COMING BACK TO THE BABY STEPS, IT REALLY HOLDS SOME GOOD POSSIBILITIES. I THINK. AND SO YOU MIGHT WANT TO TAKE A LOOK AT THAT.

I HAVE A LINK HERE. WE WON'T GO VISIT IT RIGHT NOW. BUT WE'LL SORT OF MOVE ON. BUT DO TAKE A LOOK. TRANSCRIPTION IN TERMS OF ALL OF THESE VARIOUS FORMS OF MEDIA, WHETHER IT'S AUDIO, VIDEO, YOU NAME IT. IS REALLY THE KEY TO BEING ABLE TO MAKE THOSE LEARNING OBJECTS AS I WOULD CALL THEM FULLY ACCESSIBLE. AGAIN, THERE ARE VARIOUS WAYS YOU CAN DO THAT. AND WE HAVE HAD THIS ARGUMENT IN OUR OFFICE

ABOUT TRANSCRIBING BY HAND VERSUS AUTOMATED TRANSCRIPTION TOOLS. VOICE TO TEXT TRANSLATION. WE ALL KNOW THAT THEY'RE NOT ENTIRELY ACCURATE. I THINK SOME OF THEM MIGHT BE APPROACHING 90% ACCURACY PERHAPS WITH VOICE RECOGNITION. THAT'S NOT GOOD ENOUGH: HOWEVER, WHAT WE DISCOVERED IS THEY CAN BE A TIME SAVING TOOL. YOU CAN GO AHEAD AND USE THAT, GO IN AND EDIT THAT TRANSCRIPT AND IT WILL BE READY TO GO AND WILL BE ACCESSIBLE AND ACCURATE TO THOSE STANDARDS. I'M GOING TO MOVE ON.

THERE ARE A TON OF TOOLS AND YOU'RE PROBABLY AWARE OF MANY. A LOT OF FREE IN TERMS OF TRANSCRIBING VIDEO, THERE'S MAGPIE, A TON OF THINGS. AND I GUESS WHAT I WOULD SAY TO YOU IN TERMS OF CHOOSING THE TOOLS THAT ARE BEST FOR YOU IS WHAT ARE YOU COMFORTABLE WITH? WHAT WORKS FOR YOU? IT DOESN'T HAVE TO BE ANY TOOL, IT DOESN'T HAVE TO BE MAGPIE. I'M POINTING OUT HERE JUST A FEW THAT ARE IN OUR TOOLKIT THAT WE LIKE TO USE. ADOBE FLASH, IT HAS SOME ISSUES BUT NOT NEARLY WHAT IT USED TO. WE'RE BIG FANS OF ADOBE CAPTIVATE AND SO MANY WAYS. IN TERMS OF MAKING VOICEOVER POWER POINTS ACCESSIBLE, ATTACHING TRANSCRIPTS AND THINGS OF THAT NATURE. OF COURSE, WITH ALL THE MICROSOFT PRODUCTS, MICROSOFT ACCESSIBILITY WIZARD IS REALLY GOOD AT FINDING PROBLEMS FOR YOU FOR YOU TO FIX. AGAIN, THESE ARE JUST SOME SUGGESTIONS. WE ARE WORKING HARD. AND MAKING BABY STEPS AND I THINK THAT WE'LL CONTINUE. BUT I WANTED TO MAKE SURE THAT YOU'RE REALLY AWARE OF THE CHALLENGES THAT ALL OF THESE NEW AVAILABLE EASILY USABLE MEDIA PRESENT ESPECIALLY WHEN USED WITHIN BLACKBOARD. I'M GOING TO TURN IT BACK TO Y'ALL.

>> THANKS, JERRY. ACTUALLY, LOVE HEARING WHAT YOU GUYS ARE DOING THERE AS WELL. IT'S ALWAYS INTERESTING WHEN WE'RE WORKING SO HARD ON OUR END, WE SOMETIMES FORGET TO LOOK AND SEE WHAT EVERYBODY ELSE IS DOING. SHIFTING FOCUS A LITTLE BIT.

WONDERFUL TOOLS OUT THERE. WE'VE GOT GREAT TOOLS. BLACKBOARD IS AN AWESOME TOOL. NOT GOING TO DENY THAT. BUT IN THE END YOUR INSTRUCTOR IS YOUR GREATEST PROPONENT AND YOUR POTENTIALLY YOUR GREATEST BARRIER TO ACCESSIBILITY. SO A LOT OF OUR FOCUS HAS BEEN GOING TOWARD TRYING TO TRAIN OUR INSTRUCTORS VERY SPECIFICALLY ON HOW TO DESIGN A COURSE, HOW TO UTILIZE THESE TOOLS. IF YOU REALLY THINK ABOUT IT, BEFORE 95 OR SO WHEN -- BACK IN 1995 WHEN COMPUTERS REALLY STARTED TO BLOOM, ONLINE EDUCATION WAS A COMPLETELY DIFFERENT ANIMAL AND IN THAT 15 SOME-ODD YEARS, IT HAS CHANGED COMPLETELY. WE'VE HAD THOUSANDS OF YEARS TO DEVELOP THE TRADITIONAL CLASSROOM METHOD OF LECTURE AND ABOUT 15 YEARS TO DEVELOP THE REAL MODERN ONLINE TEACHING.

SO WE'RE IN AN AREA THAT'S IN ITS INFANCY AND IT'S VERY EXCITING TO BE THERE. BUT THAT MEANS THAT THERE'S GOING TO HAVE ON TO BE A LOT OF RETRAINING. MOST OF OUR INSTRUCTORS COME FROM THE OLDER SCHOOLS SO WE'RE HAVING TO REFOCUS THEIR ATTENTIONS AND THEIR PRIORITIES TOWARD USING THESE TOOLS. AND ALONG WITH THAT IS FOCUSING TOWARD ACCESSIBILITY. AND SO ONE OF THE THINGS THAT WE WANT -- AND IT'S A STRUGGLE AT EVERY UNIVERSITY OR AT LEAST MANY OF THEM, IS HOW TO GET THIS TRAINING DONE. AND IN MY PERFECT WORLD, ANY INSTRUCTOR TEACHING ONLINE WOULD BE REQUIRED TO GO THROUGH TRAINING ON HOW TO USE THEM AND SPECIFICALLY THAT TRAINING WOULD INCLUDE ACCESSIBILITY. THAT IS NOT ALWAYS THE CASE. IT'S NOT EVEN THE CASE AT OUR UNIVERSITY. AND WE'RE PUSHED FOR THAT. BUT WE THINK THAT IS THE ONE GREATEST THING THAT WOULD BE DONE TO IMPROVE ONLINE QUALITY OF EDUCATION. AND SO WE UNDERSTAND THAT OUR INSTRUCTORS ARE NOT INTENTIONALLY GOING OUT THERE TRYING TO MAKE THEIR CLASSES INACCESSIBLE.

WE GET CALLS ALL THE TIME FROM INSTRUCTORS WHO SAID WELL I'VE DONE THIS AND THIS AND THIS AND THEY GIVE US A GREAT LIST OF THINGS THEY'VE BEEN TRYING TO DO TO MAKE THIS CLASS ACCESSIBLE AND THEY'VE JUST MISSED SOME SIMPLE THINGS BECAUSE THEY WERE JUST IGNORANT OF THEM. SO IT'S EASY FOR US TO MAKE THAT TRANSITION THEN. BUT WE WANT TO LET THEM KNOW SO THEY CAN DO THIS UP FRONT. IT DOES TAKE WORK. SO A LACK OF AWARENESS IS OFTEN THE MOST OF THE PROBLEM. SO WE REALLY WANT TO PUSH FOR THAT.

NEXT IS ADMINISTRATIVE SUPPORT. NOW, THERE ARE DIFFERENT WAYS TO GO ABOUT IT. CAJOLING. I'VE TAKEN SEVERAL DIFFERENT PATHS MYSELF. I KNOW CINDY HAS AND SEVERAL OTHERS AT THE UNIVERSITY NAGGING IS A COMMON ONE. AND IF YOU NAG THEM ENOUGH, YOU WILL ANNOY THEM ENOUGH TO WHERE THEY'LL DO ONE OF THREE THINGS. THEY'LL FIRE YOU. THEY'LL DO SOMETHING THAT MAYBE NOT QUITE SO BAD, THEY MIGHT ACTUALLY LISTEN TO YOU OR THEY'LL GET REALLY ANNOYED WITH YOU AND DO THE THING THEY JUST DID TO ME TODAY AND PUT ME ON A COMMITTEE. APPARENTLY I'VE REALLY ANNOYED SOMEBODY. BUT ONCE YOU'VE BEEN I GUESS NAGGING FOR LACK OF A BETTER TERM ABOUT THIS LONG ENOUGH, PEOPLE DO START TO TAKE NOTICE. AND WE WANT OUR ADMINISTRATORS TO REALIZE THAT YES, THEY'RE LOOKING AT THE BOTTOM LINE AND YES, IT IS EXPENSIVE. WHEN I SAY EXPENSIVE, I HAVE A DIFFERENT PERSPECTIVE. WHEN AN ADMINISTRATOR SAYS THAT'S EXPENSIVE, SHE WOULD HAVE TO SAY THAT A LOT BIGGER, VERY EXPENSIVE. SO WE'RE TRYING TO ADJUST THAT PERSPECTIVE ADMINISTRATIVELY TO REALIZE THAT THE UNIVERSAL DESIGN, THE IDEAS THAT WE'RE TALKING ABOUT, THESE THINGS ARE NOT JUST GOING TO BENEFIT THOSE FEW PEOPLE FOR SO MUCH MONEY. THAT MONEY WILL BENEFIT ACROSS THE BOARD THEIR STUDENTS.

AND I THINK WE'RE STARTING TO GET THROUGH TO THEM. OTHER UNIVERSITIES MAYBE ARE A LITTLE AHEAD OF US, SOME ARE BEHIND. HOPEFULLY YOU'RE ONE THAT'S AHEAD OF THE CURVE ON US. BUT ACCESSIBILITY, WHILE IT DOES COST, IS BENEFICIAL.

>> BASICALLY, SOME OF THE POINTS WE WANT TO GET ACROSS TO BOTH THE FACULTY AND THE ADMINISTRATION IS THAT THIS IS NOT SOMETHING THAT WE WANT TO DO FOR THOSE ONE OR TWO STUDENTS WITH DISABILITIES IN THE CLASS. BASICALLY, HAVING INSTRUCTORS GO THROUGH TRAINING IS GOING TO IMPROVE THE QUALITY OF THE CLASS. AND GOOD TEACHING IS GOOD TEACHING FOR EVERYONE. A LOT OF TIMES INSTRUCTORS FORGET THAT. THEY'VE GOTTEN THEIR DEGREE AND THEY THINK THEY'RE HERE TO TEACH AND THEY FORGET HOW IMPORTANT IT IS FOR THEM TO CONTINUE TO LEARN. SO ANYTHING THEY DO TO IMPROVE THEIR SKILLS IS GOING TO MAKE THE CLASS BETTER FOR ALL STUDENTS.

MANY OF THE ACCESSIBILITY FEATURES ARE GOING TO BENEFIT NOT JUST ONE OR TWO STUDENTS BUT ALL STUDENTS. WE TALKED ABOUT HOW ADDING CAPTIONS WILL MAKE THE VIDEO SEARCHABLE. SO ANY STUDENT CAN FIND THE SPECIFIC AREA IN THE VIDEOS THAT THEY NEED TO REVIEW. THERE ARE ALL SORTS OF EXAMPLES WHERE ONE THING -- WHERE ACCESSIBILITY HELPS ALL PEOPLE. AND ALSO ADDING THE DIFFERENT TYPES OF ACCESSIBILITY BROADENS THE SCOPE OF THE LECTURE OR THE CLASS SO THAT IT CAN CONNECT WITH STUDENTS WITH DIFFERENT LEARNING STYLES AS WELL. SO THE IDEA OF UNIVERSAL DESIGN IS SO IMPORTANT TO COMMUNICATE TO BOTH FACULTY AND ADMINISTRATORS. AND IN WRAPPING UP, WE JUST WANT TO SAY THAT BLACKBOARD IS A WONDERFUL TOOL THAT YOU CAN USE. IT HAS ACCESSIBILITY FEATURES BUILT IN. IT COMES THROUGH THE INSTRUCTORS, THEY'RE THE ONES WHO SET UP THE COURSE AND DECIDE WHAT FEATURES TO USE AND NOT TO USE. THE KEY IS TRAINING THE INSTRUCTORS TO USE THE TOOLS SUCCESSFULLY SO THAT ALL STUDENTS BENEFIT. WE KNOW THAT POLICY CHANGES ARE NOT EASY. BUT THEY ARE SO WORTH THE EFFORT BECAUSE IT'S GOING TO MAKE OUR SCHOOLS BETTER. AGAIN, FOR EVERYONE. NOT JUST A FEW STUDENTS. AND WE THANK YOU FOR BEING HERE WITH US TODAY. WE'RE GOING TO TURN IT OVER NOW TO MARCIA.

>> MARCIA KOLVITZ: THIS HAS BEEN AN INTERESTING DAY FOR US. I WAS DOING SO WELL UP UNTIL NOW WITH REMEMBERING MY MICROPHONE. THANK YOU VERY MUCH. WE'VE HAD A FASCINATING EXPERIENCE TODAY IN LOOKING AT THE USE OF ONLINE MEDIA. AND HOW WE CAN MAKE IT ACCESSIBLE FOR STUDENTS WITH DISABILITIES ESPECIALLY THOSE WHO ARE DEAF OR HARD OF HEARING. I'D LIKE TO THANK A VARIETY OF GROUPS TODAY FOR THEIR INVOLVEMENT. FIRST OUR FUNDING SOURCE AT THE U.S. DEPARTMENT OF EDUCATION. OFFICE OF SPECIAL EDUCATION PROGRAM

FOR FUNDING THE PEPNET REGIONAL CENTER. WE REALLY APPRECIATE THE SUPPORT.

AS I MENTIONED EARLIER, THE TECHNOLOGY ACTIVITIES ARE PART OF OUR CHARGE FOR THE PEPNET SCOPE. WE'D ALSO LIKE TO THANK ALL THE PRESENTERS WHO TOOK THEIR TIME AND EXPERTISE TO SHARE WITH YOU TODAY. IT WAS VERY INTERESTING TO HEAR THE DIFFERENCE ARE DIFFERENT PERSPECTIVES, THE DIFFERENT EXPERIENCES YOU'VE ALL HAD AND THANK YOU VERY MUCH FOR PARTICIPATING. WE REALLY DID ENJOY IT.

THE UNIVERSITY OF TENNESSEE, IT ENGINEERING SERVICES. WITHOUT THEIR SUPPORT, ALL OF THIS WONDERFUL TECHNOLOGY ACCESS COULD NOT HAVE BEEN POSSIBLE. YOU MADE THINGS SO SMOOTH FOR US TODAY AND WE REALLY APPRECIATE IT. EVEN WITH REMINDING ME TO USE MY MICROPHONE.

THERE WAS A GROUP OF PEPNET STAFF MEMBERS FROM ALL FOUR THE REGIONS WHO PARTICIPATED IN DEVELOPING THE PROGRAM AND SUPPORTING THE WEBCAST AND WE TRULY APPRECIATE ALL YOUR HARD WORK IN BRINGING THIS TOGETHER.

AND FINALLY TO MAKE THIS AN ACCESSIBLE BROADCAST, WE UTILIZED THE SERVICES OF SOME VERY FINE HIGH QUALITY PROFESSIONALS. INCLUDING DARLENE PICKARD FOR CAPTIONING, BETHANY PERRY, BEN HALL AND HEATHER FARMER OUR INTERPRETERS FOR TODAY.

THANK YOU ALL VERY MUCH.

AND I HOPE YOU TUNE IN ON WEDNESDAY, MARCH 24TH FOR PART 2.

THANK YOU.