Captions

(T11C)

Implementing Video Streamed Instruction for Deaf and Hard-of-Hearing Online Learners

James R. Mallory

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Presented at the Instructional Technology and Education of the Deaf Symposium, held at the National Technical Institute for the Deaf, Rochester, NY; June 25-29, 2001. http:www.rit.edu/~techsym

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T11C

>>JAMES MALLORY: OKAY. HELLO. WELCOME. MY NAME IS JIM MALLORY.

THIS IS RICK RIZZO, STEVE CAMPBELL AND JOSY KURTS. WE ARE GOING TO

RELY ON THE INTERPRETERS TO KEEP THE COMMUNICATION SMOOTHLY GOING. SO

MAYBE AT THE END FOR QUESTION AND ANSWER WE WILL SIGN FOR OURSELVES.

BUT RIGHT NOW WE ARE GOING TO TURN IT OVER TO THE INTERPRETER TO KEEP

THINGS EASY.

THE TOPIC OF OUR DISCUSSION TODAY IS IMPLEMENTING VIDEO STREAMED

INSTRUCTION FOR DEAF AND HARD OF HEARING. WE HAVE BEEN PILOTING THIS

FOR THE LAST COUPLE OF MONTHS TRYING TO DEVELOP A USABLE PRODUCT FOR,

TEACHING INDIVIDUAL TRAINING AT A DISTANCE. SO WE ARE GOING TO SHARE

OUR EXPERIENCE WITH THAT, WITH YOU TODAY.

THE BASIC TOPICS THAT WE ARE COVERING, BASICALLY WHAT IS VIDEO

STREAMING? WHERE OUR ITS LIMITATIONS. TALK ABOUT THE THREE POPULAR

VIDEO STREAMING FORM AT. WE WILL TALK ABOUT THE RESOURCE WE NEED. WE

WILL SHOW YOU ACTUALLY HOW TO CREATE AND EDIT A VIDEO STREAM MODULE AND

WHAT HARDWARE, SOFTWARE, AND OTHER THINGS YOU NEED. WE WILL TALK ABOUT

OUR CHALLENGES FROM DEVELOPING VIDEO STREAMING. AND WHAT LIMITATIONS

WE ENCOUNTER AND ALSO WHAT ADVANTAGES WE FEEL FOR USING THAT IN OUR

REMOTE INSTRUCTIONS CURRENTLY.

BASICALLY, HOW MANY OF YOU HAVE HAD EXPERIENCE WITH VIDEO

STREAMING BEFORE? ANYBODY USE REAL PLAYER? SOME OF YOU.

BASICALLY WHAT VIDEO STREAMING IS -- HOW MANY ARE FAMILIAR WITH

QUICK TIME, USING QUICK TIME MOVIES? MORE OF YOU.

OKAY A QUICK TIME MOVIE BASICALLY YOU CLICK AND YOU WAIT FOR THE

ROUGH ASCII

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WHOLE THING TO DOWNLOAD AND THEN IT RUNS. OKAY THAT'S FINE FOR SHORT

MOVIES OR SHORT CLIPS. VIDEO STREAMING IS KIND OF LIKE -- I CALLED IT

PROGRESSIVE DOWNLOADING. IT TAKES A LITTLE PIECE AND IT JUST KEEPS

FEEDING YOU. FEEDING YOU OR STREAMING THE VIDEO OVER TIME.

A VIDEO COULD STREAM ME FROM MANY MINUTES TO SEVERAL HOURS IN

LENGTH BECAUSE YOU ARE NOT TAKING A WHOLE CHUNK. YOU ARE FEEDING A

LITTLE AT A TIME.

SO IT'S VERY CONDUCIVE TO INSTRUCTIONAL MODULES WHICH ARE LONGER.

WITH THE VIDEO STREAMING, THERE'S ACTUALLY SEPARATE STREAMS THAT YOU

ARE USING TO FEED THE VIDEO. FOR EXAMPLE, WE WILL SHOW YOU SOME THAT

THIS CREW HERE HAS BEEN WORKING ON.

WE HAVE ONE OF THE STREAMS WILL JUST BE THE AUDIO. ONE OF THE

STREAMS WILL JUST BE THE CAPTIONING. ANOTHER STREAM WILL BE A PERSON

SIGNING. AND ANOTHER STREAM WILL BE THE COMPUTER MONITOR THAT WE

CAPTURE.

SO YOU ACTUALLY -- YOU GET INTO THE PROCESS OF SYNCHRONIZING THESE

DIFFERENT STREAMS WHEN YOU SEND IT OUT, IT MAKES SENSE. IN THE

BEGINNING, WE WILL TALK ABOUT SOME OF THE LIMITATIONS. WHEN YOU FIRST

DO IT YOU GO LIKE THIS AND EIGHT SECONDS LATER YOU HEAR "HI."BUT IT

IMPROVES FROM THERE.

BUT THERE'S BASICALLY THREE OF THE MOST POPULAR TYPE OF VIDEO

FORMATS FOR STREAMING. QUICK TIME, OF COURSE MOST OF YOU ARE FAMILIAR

WITH THE QUICK TIME MOVIE. THEY ALSO GOT INTO THE STREAMING ARENA BUT

THEY HAVEN'T BEEN IN IT AS LONG AS THE OTHER ONES AND THEY HAVEN'T

REALLY PROVEN THEMSELVES IN THE STREAMING ARENA YET. MICRO SOFT MEDIA

ROUGH ASCII

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PLAYER USES AN AVI TYPE OF FILE. THAT WORKS WELL BUT THAT'S VERY

LIMITED TO, YOU KNOW, BILL GATES COMPANY, SO NATURALLY IT WORKS ON

WINDOWS PLATFORM MUCH BETTER THAN THE OTHERS.

REALPLAYER IS THE MOST DOMINANT. IT WAS OUR CHOICE TO USE

REALPLAYER FOR THE PILOT AND INSTRUCTION THAT WE ARE DEVELOPING. IT

USES THE RM FILES. IN ADDITION TO ONE OF THESE YOU NEED TO SELECT

WHICH VIDEO FORMAT YOU WANT. YOU ALSO NEED TO GET A SYNCHRONIZING

SOFTWARE.

WE ARE USING SMILE TODAY AND RICK WILL SHOW YOU SOME OF THE SMIL

FILES. SMIL, SYNCHRONIZED ACCESSIBLE MEDIA INTERCHANGE. AND WHAT THIS

DOES, IT HELPS YOU WORK WITH THE STREAMS. REMEMBER YOU HAVE THE AUDIO,

THE SIGN LANGUAGE, VIDEO THE CAPTIONING AND THE MONITOR. SO NOW YOU

HAVE TO LINE THOSE UP AND SYNCHRONIZE THEM AND WORK WITH THOSE.

THE SMIL FILE WILL HELP YOU DO THAT.

I AM GOING TO TURN IT OVER TO STEVE KNOW WHO WILL TALK ABOUT SOME

OF THE RESOURCES YOU NEED IN ORDER TO SUCCESSFULLY DEVELOP AND POST

SOME STREAMING VIDEOS. STEVE

>>STEPHEN CAMPBELL: I AM AN ASSISTANT PROFESSOR HERE. I HAD NO IDEA

WHAT WAS INVOLVED WITH IT WHEN I FIRST CONTACTED ME. IN A PROJECT YOU

ARE SHOOTING IN THE DARK AND HOPING YOU GET IT IN THE HEAD.

SO WHAT WE DID IS THEY DID SOME EXPERIMENTATION BOTH WITH A

STANDARD DB CAM. THEN THEY WILL DID SOME PROFESSIONAL RECORDING IN A

TV STUDIO. WE WILL SHOW THOSE.

WE BOUGHT A SERVER. WE DIDN'T KNOW HOW MUCH ROOM WE NEEDED. WHEN

WE DID ROUGH DRAFTS OF THEIR STREAMS, IT TURNS OUT IT WAS ABOUT 4

ROUGH ASCII

4

MEGASECOND UNCOMPRESSED. SO AN 8 MINUTE CLIP WITH SOUND AND VIDEO WAS

ABOUT 2 GIG. COMPRESSED THE FINAL PRODUCT THAT GOT IT DOWN TO 50 MEG.

BUT IF YOU ARE DOING A LOT OF PRODUCTION AT THE SAME TIME, YOU ARE

GOING TO BE EATING UP ALL KIND OF SPACE IN YOUR SERVER. SO OUR SERVER

WE BUILT IT WITH TONS OF MEMORY.

I THINK WE GOT IT WITH 300 GIG STORAGE SPACE WHICH THAT MAY NOT

PROVE TO BE ENOUGH IN THE LONG RUN. SO IF YOU ARE BUILDING THIS

PROGRAM, BUILD THE SERVER AS BIG AS YOU CAN OR LOOK AT SAND TECHNOLOGY

WHERE YOU CAN ADD DRIVES AS YOU GO.

DVD CD BURNERS. IT WILL STORE ABOUT 650 MEG. WHEN YOU LOOK AT

SOME ONE IS TILING IN AND DOWNLOADING THINGS, WE LOOK AT THE

POSSIBILITY OF CREATING DVD'S WHICH CAN STORE UP TO ABOUT 5 GIG OF

FILES AND CD BURNERS AS A POSSIBILITY OF SIGNING UP FOR THE KIDS TAKING

THESE CLASSES OR MAIL THEM TO THEM RATHER THAN HAVING THEM DOWNLOAD

THEIR FILES FROM THE SERVER.

ANOTHER REASON WE THOUGHT ABOUT DOING THAT N.T.I.C. IS JUST ONE

COLLEGE HERE. WE SHARE THEIR CONNECTION. KNOWING THERE ARE A LOT OF

KIDS DOWNLOADING THEY WERE VERY INTERESTED IN WHAT WE ARE DOING HERE.

IF THERE IS AN ADMINISTRATOR OVER AND ABOVE YOU, YOU MAY WANT TO LET

THEM KNOW WHAT YOU ARE DOING BECAUSE IT DOES AFFECT YOUR NETWORK

SIGNIFICANTLY.

THE VIDEO STREAMING SOFTWARE, WE HAVE BEEN PLAYING AROUND WITH

REAL, QUICK TIME, AND RICK WILL DEMO THAT FOR YOU.

THEY SET UP A BASIC WEBSITE FOR THE KIDS TO DOWNLOAD THE FILES

THAT THEY NEEDED. AND AGAIN, FAST AND WORK, O C 3, I DON'T KNOW WHAT

ROUGH ASCII

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THE OTHER COLLEGES USE, THE FASTER THE BETTER. THE BIGGER THE SERVER

THE BETTER. DVD'S IF YOU CAN.

AND AGAIN, ALWAYS AN ISSUE FOR US HERE. SECURITY. WE HAD ONE

SERVER AT OUR COLLEGE. NOT THAT WE WERE RESPONSIBLE FOR SETTING IT UP.

AT CREATE THESE FILES. PUT THEM UP HERE. ONE DAY THEY CAME TO WORK,

ALL THE FILES WERE GONE BUT LOADED WITH GAMES. SO ALWAYS KEEP THAT IN

MIND.

I WILL TURN IT OVER TO RICK RIZZO, ONE OF MY TECHNICIANS. ONCE WE

DID THE INITIAL PLANNING I DUMPED IT ON HIS LAP.

>>RICHARD RIZZO: OKAY WE ARE DOING MOST OF THE DEVELOPMENT ON T C ON

A MAC BECAUSE REAL IS A LOT OF SOFTWARE FOR P C RIGHT NOW. IT IS

AVAILABLE ON BOTH PC AND MAC. WHICH IS A REASON WHY WE CHOSE IT.

THE -- STEVE TALKED ABOUT THE SERVER. IT WAS A VERY LARGE SERVER.

AND IT'S A DUAL PROCESSOR. IT IS RIGHT NOW IT'S SERVING PRETTY WELL

BUT WE ARE ONLY DOING TWO OR THREE PEOPLE LOOKING AT A TIME. WE HAVE

NOT SEEN WHAT 30 PEOPLE LOOKING AT A TIME DOES TO THE SERVER YET. SO

THAT WILL COME HOPEFULLY SOON.

THE CAMERA, WE USED LIKE STEVE SAID PROFESSIONAL VIDEO, AS YOU

WILL SEE. WE ALSO LOOKED AT JIM BROUGHT IN HIS HOME DIGITAL CAMERA AND

WE BROUGHT THAT IN AND LOOKED AT THAT. THAT WAS PRETTY GOOD.

OBVIOUSLY THE QUALITY WASN'T AS GOOD AS THE PROFESSIONAL ONE.

AND HE HAD SOME OLD STREAMS FROM REGULAR CAMCORDERS, YOU WILL SEE

-- I WILL SHOW YOU, IT'S VERY UNACCEPTABLE I THINK.

SO YOU CAN USE PRETTY MUCH ANY CAMERA. ESPECIALLY THE NEWER

ROUGH ASCII

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CAMERAS LOOK MUCH BETTER. AND A STANDARD DIGITAL CAMERA LOOKS PRETTY

GOOD.

THE SOFTWARE WE ARE USING IS ADOBE PRE MERE TO BRING IT INTO THE

COMPUTER AND TO CUT IT, AND TO TAKE THE AUDIO OFF. SO IT'S JUST A

VIDEO FILE. AND PREMIERE COMES WITH A FILE THAT CONVERTS IT TO REAL.

THEN YOU PICK HOW TO CONVERT IT. HOW MANY STREAMS YOU WANT TO PUT IN.

SO FOR EXAMPLE IF YOU ARE JUST DOING -- LIKE WHAT WE DID, WHAT YOU

WILL SEE IS WE JUST DID IT FOR A T 1 CONNECTION BASICALLY. SO YOU CAN

SAY, IF YOU ARE ON 28 PAID MODEM MAKE IT A LITTLE STREAM THAT'S THE

QUALITY IS VERY LOW. AND IF YOU ARE ON T 1 MAKE A GOOD STREAM WITH

HIGH QUALITY, AND YOU CAN DO ANYTHING IN BETWEEN AND YOU CAN COMBINE

THEM ALL. BUT AS YOU COMBINE THEM I FOUND THE FILE GETS VERY BIG AND

IT TAKES THAT MUCH LONGER TO STREAM.

SO WE CUT IT DOWN TO JUST ONE STREAM. ASSUMING MOST OF THE

STUDENTS WILL BE ON CAMPUS SOMEWHERE AND CONNECTED THROUGH OUR NETWORK.

THE CAPTIONING WE HAVE BEEN USING A LOT OF DIFFERENT CAPTIONING

AND PLAYING WITH DIFFERENT SOFTWARE. THE FIRST ONE WE DID, I TYPED IN

THE CAPTIONS MANUALLY FROM THE AUDIO. AND THEN I PUT IN TIME CODE, I

LISTEN TO THE AUDIO AND SAID OKAY. AT 5 SECONDS I WANT THIS LINE TO

APPEAR HERE.

AND I ALSO DOWNLOADED MEG HIGH FROM THE WGBH. I WAS PLAYING WITH

THAT A LITTLE BIT. AND JUST THIS LAST ONE WE DID, I TOOK JIM'S AUDIO

FROM THE STREAM AND I BROUGHT INTO DRAG AND NATURALLY SPEAKING AND

CONVERTED IT THAT WAY. THAT GOT ABOUT 80 PERCENT, 90 PERCENT. SO IT

GOT A LOT OF THE WORDS, MOST OF THEM. I JUST HAD TO CHANGE WORDS HERE

ROUGH ASCII

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AND THERE AND FIGURE OUT WHERE THE BREAKS SHOULD BE, BECAUSE IT DIDN'T

PUT THE BREAKS IN FOR ME. WHERE HE STOPPED TALKING.

>>JAMES MALLORY: CAN I ADD TO THAT. WHAT I DID IS I TRAINED MY

LAPTOP WITH THE DRAGGING AND I JUST GAVE HIM -- IT AUTOMATICALLY SAVES

A FOLDER FOR YOU. I JUST GAVE HIM MY FOLDER SO NOW HE HAS MY TRAINING

AND HE COULD JUST RUN THAT VIDEO THROUGH THE FILES THAT I ALREADY

TRAINED AND SO HE DOESN'T NEED ME AROUND. HE CAN DO THAT

INDEPENDENTLY. THAT WAS A VALUABLE TOOL BECAUSE HE WAS SPENDING A LOT

OF TIME. HE AND JOSY WERE SPENDING A LOT OF TIME ON THAT. AND THAT

REALLY CUT THE DEVELOPMENT TIME QUITE SIGNIFICANTLY.

>>RICHARD RIZZO: OKAY. SO YOU SEE, ADOBE PREMIERE. REALPLAYER. THE

OTHER PROBLEM WE HAD WAS THE COMPUTER OUTPUT.

WE TRIED TO VIDEOTAPE THE COMPUTER SCREEN. WE TOOK AN OUTPUT LIKE

THIS AND PUT IT DIRECTLY TO A DIGITAL VIDEO. AND THE QUALITY IS NOT

GREAT WHEN YOU CONVERT IT.

SO THE LAST -- ONE OF THE THINGS WE TRIED, IT'S A PROGRAM CALLED

SNAGGETTE. IT JUST CAPTURES THE SCREEN RIGHT TO AN AVI FILE. AND THAT

SEEMED TO WORK MUCH BETTER, WE ARE WORKING ON THE SIZE AND HOW TO

CHANGE SIZES ON THE SCREEN. BUT THAT SEEMS MUCH BETTER AND IT WAS A

MUCH SMALLER FILE.

AND SMIL FILES WHICH WE WERE USING THAT ALLOWS YOU TO SYNCHRONIZE

THINGS AND ALLOW MULTIPLE STREAMS AT ONE TIME.

THIS IS AN SMIL FILE. THERE IS A PRINTOUT OF IT IN THE WORKSHEET.

ROUGH ASCII

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BASICALLY THE TOP PART LET'S YOU LAY OUT THE SCREEN HOWEVER YOU WANT IT

TO LOOK. I WILL BRING ONE UP REALLY QUICK.

(ON SCREEN).

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SO. THERE'S A COMPUTER SCREEN THAT'S ONE OF THE WINDOWS AT THE

TOP THERE. THE SIGNING IS ANOTHER VIDEO STREAM. THE LOGO WE PUT IN

AND THIS IS THE CAPTIONING AND THERE'S AUDIO ALSO WHICH YOU CAN HEAR IF

YOU ARE CLOSE.

SO THAT IS THE TOP PART WHERE IT SAYS LAYOUT. THAT IS WHAT THE

TOP PART DOES. THE BOTTOM PART SAYS THIS IS THE COMPUTER, COMPUTER 1.

THIS IS THE CAPTIONING. THIS IS JIM HIMSELF SIGNING. THIS IS THE LOGO

AND THIS IS THE AUDIO AND PAR MEANS PARALLEL. YOU CAN START THEM ALL

AT ONCE.

WHERE IT SAYS BEGIN, THAT SAYS START AT ONE SECOND IN. START AT

ONE AND A HALF SECONDS IN BECAUSE THE BEGINNING TIMES ON SOME OF THESE

STREAMS WERE DIFFERENT. SO I STARTED THEM AT DIFFERENT TIMES TO MAKE

SURE THEY ENDED AT THE SAME TIME.

AND YOU CAN RUN THINGS IN PARALLEL OR IN SEQUENCE IF YOU HAVE

THINGS -- LIKE MULTIPLE VIDEOS YOU WANT TO RUN ONE AFTER THE OTHER YOU

CAN SET IT UP. SO SMIL LET'S YOU SET UP A LOT OF DIFFERENT VARIATIONS.

>>AUDIENCE MEMBER: IS SMIL A PROGRAM.

>>RICHARD RIZZO: IT'S A PROGRAMMING LANGUAGE THAT REAL CAN CONVERT

AND USES. QUICK TIME CAN DO IT A LITTLE BIT. THEY ARE STARTING BUT

ROUGH ASCII

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IT'S BASICALLY LIKE AN HTML CODE, WHEN YOU RUN THE SMIL FILE.

REALPLAYER OPENS UP AND CONVERTS IT.

>>AUDIENCE MEMBER: SO SMIL FILE DOES THE CONVERSION OR YOU ACTUALLY

HAVE TO ENTER ALL THE HTML CODE YOURSELF.

>>RICHARD RIZZO: WE ENTER -- I ENTER THE SMIL CODE. I TYPE THIS IN.

AND THEN REAL -- WHEN YOU RUN THIS PROGRAM, REAL READS DOWN AND DOES

THE STEPS YOU ARE TELLING IT TO DO

>>AUDIENCE MEMBER: SO IN OTHER WORDS TO DO HTML

>>RICHARD RIZZO: YOU HAVE TO DO SMIL. IT'S VERY SIMILAR TO HTML. IF

YOU KNOW HTML THOSE COMMANDS ARE SIMILAR. IT'S PRETTY SIMPLE TO LEARN.

VIDEO, VIDEO -- THESE ARE THE VIDEOS I WAS SHOWING. TEXT STREAM IS THE

TEXT AT THE BOTTOM. AUDIO IS THE AUDIO AND IMG IS THE IMAGE. SO IT'S

PRETTY SELF-EXPLANATORY. I SET UP REGIONS WHERE I WANT THINGS TO

APPEAR. AND REGION SAYS PUT THAT IN THAT SPACE.

SO IT'S SOMETHING THAT YOU CAN LEARN PRETTY QUICKLY. THERE ARE

PROGRAMS, I FOUND ONE AFTERWARDS THAT WILL WRITE SMIL FOR YOU. LIKE

HTML. YOU SEE ON THE SCREEN WITH A BOX. THEY WILL WRITE THE CODE FOR

YOU. I HAVEN'T TRIED IT TO SEE HOW WELL IT WORKS.

>>AUDIENCE MEMBER: OKAY.

>>AUDIENCE MEMBER: SMIL IS PART OF THE HTML OR IS IT SEPARATE.

>>RICHARD RIZZO: IT'S SEPARATE.

>>AUDIENCE MEMBER: OKAY.

>>JAMES MALLORY: SOME OF THE CHALLENGES WE HAVE HAD, THE FIRST ONE IS

THE RESOURCES. REALLY IT WAS NEVER A PRIORITY EVEN THOUGH OUR

DEPARTMENT WAS VERY INTERESTED IN THIS. IT WAS NEVER A PRIORITY ON THE

ROUGH ASCII

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EQUIPMENT BUDGET PROCESS. I'M SURE NONE OF YOU HAVE RESOURCES IN YOUR

SCHOOLS, RIGHT? AND SO, BUT WE ENDED UP GETTING A GRANT TO BUY THE

SERVER AND THE STUFF WE NEEDED TO HIRE A STUDENT TO HELP WITH THE

CONVERSION. SO RESOURCE -- LIKE ANYTHING WAS A BIG ISSUE. CAPTURING

THE VIDEO TO A -- I MEAN YOU SAW THE SAMPLE. LET ME SHOW YOU AGAIN

HERE.

PROBABLY THE -- ONE OF THE TOUGHER THINGS ONE OF THE TOUGHEST

PROBLEMS IS CAPTURING THIS OUTPUT FROM THE COMPUTER. I MEAN WE WORKED

AND WORKED TO GET THAT TO LOOK GOOD BUS IT'S FUZZY. WHEN YOU OPEN IT

UP LARGER. THIS IS VISUAL BASIC WE TEACH STUDENTS TO TAKE THESE

OBJECTS AND PUT THEM ON A FORM. AND THEN CHANGE THE PROPERTIES AND THE

COLORS AN THEN CODE INSIDE.

AND THAT WAS PROBABLY ONE OF THE BIGGEST INITIAL CHALLENGES WAS,

YOU KNOW WE HAVE THESE PRETTY EXPERIENCED VIDEO PEOPLE AND WE ARE

CAPTURING DIRECTLY FROM THE CAMERA. WE FIND BY PLAYING AROUND TO SNAG

IT, WHICH I DON'T KNOW IF ANY OF YOU USE TO CAPTURE SCREEN IMAGES. YOU

DON'T NEED ANY OF THE FANCY COMPUTER STUFF YOU CAN USE SNAG. AND IT

WORKED OUT ABOUT AS WELL IN TERMS OF CLARITY.

SO THAT WAS THE BIGGEST CHALLENGE HERE. AND JUST STREAMING

SOMEBODY'S SIGNING IS NOT A BIG DEAL. STREAMING THAT AND CAPTIONING

THAT'S DONE ALL THE TIME. NOT A BIG DEAL AT ALL BUT WHEN YOU COMBINE

SIGN LANGUAGE, CAPTIONING AND A COMPUTER MONITOR AND GET THOSE ALL SYNC

TOGETHER THAT'S A BIG DEAL. NOT MANY PEOPLE ARE DOING IT. SO THAT'S

-- SO THAT'S KIND OF WHERE THE VIDEO SYNCHRONIZING. AGAIN RICK

MENTIONED THAT SEEMED TO BE A BIG CHALLENGE. A LOT OF IT IS A LEARNING

ROUGH ASCII

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CURVE ON OUR PART. THIS IS EVOLVING. THE TOOLS ARE GETTING BETTER AND

BETTER. THEY HAVE AN SMIL FILE EDITOR NOW LIKE HE MENTIONED. THIS IS

IMPROVING. A COUPLE OF MONTHS FROM NOW IT WILL BE DIFFERENT.

SO WE ARE KIND OF LEARNING AS WE GO. CAPTIONING HEADACHES. I

THINK I AM GOING TO LET JOSY AND RICK MENTION THAT A LITTLE BIT ABOUT

THE CAPTIONING HEADACHES. I THINK RICK MENTIONED SOME OF IT ALREADY.

YOU WANT TO SHARE SOME OF YOUR EXPERIENCE.

JOSY: WE TRIED TO DECIDE WHICH WAS BEST. TO SET UP THE

CAPTIONING. FIRST WE TRIED USING A FLASH, LIKE USING IT IN THE TB.

BUT THEN IT SEEPED LIKE IT WAS TOO FAST FOR PEOPLE TO READ SO WE

CHANGED IT -- WE MOVED THE CAPTIONS FROM THE BOTTOM TO THE TOP OF THE

SCREEN. YOU SAW THAT RECENTLY ON REALPLAYER. WE MOVED THE CAPTIONS UP

HIRE ON IT'S SCREEN AND IT SEEMED TO BE BETTER.

AND --

>>JAMES MALLORY: SOME OTHER CHALLENGES FROM YOUR EXPERIENCE. THIS IS

YOUR FIRST TIME EXPERIENCING USING THIS. YOU HAD THE WARN THEM ABOUT

WHAT TO EXPECT, WHAT WOULD YOU RECOMMEND?

JOSY: I THINK MOVING THE CAPTIONS FROM THE BOTTOM TO THE TOP WAS

A GREAT IDEA. IT'S ALWAYS EASIER FOR PEOPLE TO READ.

>>JAMES MALLORY: OKAY. THANKS. RICK DO YOU HAVE ANYTHING TO ADD

WITH THE CAPTIONING?

>>RICHARD RIZZO: JUST WHEN SHE MEANS BOTTOM TO THE TOP. I WANT TO

SHOW YOU -- SHE MEANS WE SCROLLED THE CAPTIONS INSTEAD OF FLASHING AT

THE BOTTOM. BEFORE IT WAS.

ROUGH ASCII

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>>JAMES MALLORY: I KNOW IT'S HARD TO READ.

I AM TRYING TO MATCH THIS EXACTLY TO MATCH THIS. A LITTLE BIT OF

A CHALLENGE BECAUSE IT'S A JUDGMENT THING.

SEE HOW FAST THIS IS GOING? AND AGAIN DEPENDING ON YOUR

CONNECTION AND THE WEB SPEED AND HOW EVERYTHING'S RUNNING, IS THAT WILL

VARY A LITTLE BIT. IT BUT IT SEEMS TO BE FINE.

THE TIME IS NOW TO GET INTO THIS KIND OF A THING. AND YOU WILL

SEE -- LET ME CLOSE THIS.

ONE OF THE LIMITATIONS IS THE SPEED OF YOUR AUDIENCE. IF YOU ARE

ON A 56 K. MODEM, IT'S GOING TO BE A LITTLE SLOWER.

WHAT WE FOUND IS 70 PERCENT OF OUR R.I.T. ON-LINE ARE ON HIGH

SPEED ACCESS AT HOME OR WORK. SO THAT'S INCREASING. I DON'T KNOW IF

YOU HAVE ROAD RUNNER AND ISBM AND ALL OF THESE THINGS. IT IS BECOMING

A MORE VIABLE OPTION NOW AND WE ARE GOING TO DO WITH OUR INSTRUCTION IS

POST IT ON THE WEB. AND STUDENTS WHO SAY THEY HAVE A SLOWER CONNECTION

WE WILL SEND THEM A CD OR DVD TO PLUG INTO THEIR PLAYER. FOR THE

PERCENTAGE OF PEOPLE NOT ON HIGH SPEED ACCESS.

SYSTEMS LIMITATION. YOU HAVE TO HAVE A LAPTOP WITH ENOUGH, YOU

KNOW, CPU SPEED AND HARD DISK AND RAM AND ALL OF THAT STUFF. BUT THEY

ARE GETTING ALL THAT MORE POWERFUL.

I WAS TEASING MY CHAIR PERSON THE OTHER DAY. THIS LAPTOP HAS MORE

HARD DISK SPACE THAN OUR SERVER IN OUR DEPARTMENT. (LAUGHTER) AND

DOUBLED.

SOMEBODY IN MY DEPARTMENT. SO YOU KNOW WHEN THE SERVER GETS FULL

YOU KNOW WHO TO BLAME.

ROUGH ASCII

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SO PROCESSOR SPEED MEMORY. WE WORK WITH TECHNICAL STUDENTS. SO

IT'S REALLY NOT A PROBLEM WITH REALPLAYER. YOU KNOW DOWNLOADING THE

PROPER THINGS THAT YOU NEED TO RUN. MAYBE A NONTECHNICAL STUDENT AND

LIBERAL ARTS THEY MAY STRUGGLE. WHAT DO I HAVE TO DO? YOU HAVE TO GO

TO REALPLAYER, DOWNLOAD THEIR FREE VERSION AND THINGS LIKE THAT.

FOR A NONTECHY AUDIENCE IT MAYBE A BIT OF A CHALLENGE GETTING THE

THING UP AND RUNNING.

EASE OF PRODUCTION BY TEACHERS. I MEAN THAT'S ALWAYS AN ISSUE.

CAPTURING THE VIDEO AND USING ADOBE PREMIERE. WHEN YOU GET TO THE

SMILE FILES, YOU NEED A TECHY PERSON WHO KNOWS ABOUT SERVERS TO STORE

IT UP THERE. YOU NEED A TEACHER WHO'S MOTIVATED TO LEARN AND YOU NEED

A TECH SUPPORT PERSON WHO CAN TAKE CARE OF THE SERVER END OF THINGS.

SO YOU NEED BOTH OF THOSE TO REALLY DO IT JUSTICE.

WE CAPTURING EDITING WE KIND OF TALKED ABOUT. BUT YOU DID THE

CAPTIONING -- THE AUDIO PART AND THE CAPTIONING.

>>RICHARD RIZZO: I WROTE THE CAPTIONS IN AND THEN SHE SYNCHRONIZED IT

TO THE SIGNING. NOT TO THE AUDIO. SO YOU WERE DOING IT AT THE SAME

TIME.

>>JAMES MALLORY: WHAT WE ARE GOING TO DO IN THE FUTURE I AM GOING TO

HAVE A HEAD PHONE WHEN I SIGN AND I SPEAK. THEN WE HAVE DRAGON ALREADY

TRAINED SO WHEN I AM FINISHED EVERYTHING WILL BE CAPTURED THE

CAPTIONING BECAUSE AS YOU SPEAK THE DRAGGEN IS DOING THE WORK.

SO WE LEARN IN THIS PILOT WE ARE LEARNING THE STUFF AFTER THE FACT

BUT YOU CAN SAVE TIME IF YOU HAVE THE HEAD PHONE AND YOU HAVE THE

SYSTEM.

ROUGH ASCII

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>>AUDIENCE MEMBER: WHAT IS IT DRAGON.

>>STEPHEN CAMPBELL: DRAG AND NATURALLY SPEAKING.

>>JAMES MALLORY: OUR PAPER ON THE WEB, THERE'S NOR DETAILS ON THAT

AND CONTACT INFORMATION. SO INSTEAD OF KILLING A LOT OF TREES AND

PASSING A LOT OF PAPER. THE FINAL PAPER IS ACCURATE AND IT HAS SOME

MORE IN-DEPTH INFORMATION TO HELP YOU. IF YOU HAVE ANY QUESTIONS,

THERE'S A CONTACT PERSON THERE YOU CAN ASK QUESTIONS.

SO, OKAY. THE ADVANTAGES. WE HAVE ONE COMPLAINT FROM A STUDENT

LAST YEAR BECAUSE IT WAS VCR. WE HAVE BEEN PRETTY SUCCESSFUL. WE HAD

A VCR BASED COURSE WHERE STUDENTS REMOTELY TAKE -- LEARN C + + PROGRAM

LANGUAGE. NOW THE YOUNGER GENERATION STARTING TO GET SPOILED AND EVEN

OUR AGE IS STARTING TO GET SPOILED. I DON'T WANT TO CARRY THESE

VIDEOTAPES AROUND. WHY CAN'T I HAVE A CD OR CLICK ON THE WEB.

SO WE ARE KIND OF BEING FORCED TO MOVE WITH THE TECHNOLOGY, VCR

STILL WORKS IT'S NOT AS FANCY FOR THE STUDENTS. YOU CAN GET MORE --

THERE'S A GUY ON CAMPUS HE CONVERTED -- HE HAD A TEN VIDEOTAPE COURSE,

ALL ON ONE CD NOW. ONE OR TWO C. D.'S SO IT IS A MORE EFFICIENT WAY OF

USING THE MEDIA AND TRANSPORTING IT.

LIKE I MENTIONED 70 PERCENT OF OUR ON-LINE STUDENTS ARE CONNECTED

AT HIGH SPEED ACCESS. ANOTHER ADVANTAGE WAS STREAMING VIDEO COMPARED

TO VCR TAPE. IF YOU WANT TO FIND THE LESSON AND YOU HAVE FIVE OR SIX

VCR TAPES TRYING TO FIND IT. IT'S TOUGH.

VIDEO STREAM YOU CAN DO A SEARCH ON THE TOPIC BECAUSE IT'S

ROUGH ASCII

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CAPTIONED YOU CAN GO RIGHT TO THAT LESSON.

SO YOU CAN DO A SEARCH. THAT'S A VERY VALUABLE TOOL FOR PICKING

UP SELECTIVE LESSONS AND THINGS LIKE THAT ON A CD. MUCH FASTER

SEARCHING AND FINDING.

IN THE GOAL TOO WE ARE WORKING ON NOW IS TO HAVE A DELIVERY

OPTIONS. WHAT YOU WANT. MAYBE YOU WANT SIGN LANGUAGE. MAYBE YOU

DON'T. YOU WANT THE MONITOR. YOU WANT CAPTIONING. LIKE CLOSED

CAPTIONING ON OR OFF. THE GOAL IS TO HAVE ANY OF THOSE, TURNING THEM

ON OR OFF. SO THE AUDIENCE, YOU CAN USE THEIR PREFERRED COMMUNICATION

STYLES.

THAT'S REALLY KIND OF A BRIEF DESCRIPTION OF WHAT WE ARE DOING.

NOW KIND OF HOPE IT UP SO YOU DECIDE IF YOU WANT IT SEE THE REAL PLAYER

AGAIN OR YOU WANT TO ASK QUESTIONS OF ANY OF US. WE WILL KIND OF OPEN

IT UP FOR DISCUSSION. YES, SIR. THE COST?

WHICH PART?

THE GRANT INCLUDING THE LAPTOP TO DEVELOP IT, ADOBE -- THE SERVER

ABOUT $16,000 FOR THE SERVER. ADOBE PREMIERE IS $300 FOR THAT

SOFTWARE.

REAL IS $800.

>>STEPHEN CAMPBELL: REAL SOFTWARE WAS $2300.

>>JAMES MALLORY: DRAG AND.

>>STEPHEN CAMPBELL: ABOUT $200.

WHEN WE BOUGHT THIS SERVER, THE COST OF THE TECHNOLOGY WAS AROUND

$16,000. THAT WAS MAYBE FOUR MONTHS AGO WE BOUGHT THAT SERVER AND NOW

ROUGH ASCII

YOU CAN GET THE SAME SERVER FOR ABOUT 10. SO THE COST OF TECHNOLOGY IS

ALWAYS DROPPING.

300 GIG. IT WAS CONVERTED A RATE 5. SO YOU ACTUALLY HAVE ABOUT

230 GIG OF STORAGE CAPACITY.

>>JAMES MALLORY: WITH THE CD BURNERS AND DVD.

>>STEPHEN CAMPBELL: DVD BURNERS ABOUT $800. DOUBLE-SIDED DVD YOU CAN

GET UP TO 5 GIG ON DVD.

>>JAMES MALLORY: WE ARE EXPERIMENTING WITH THAT. A DVD HOLDS FOR

THAN A CD. A LOT OF PEOPLE HAVE DVD PLAYERS AT HOME.

>>STEPHEN CAMPBELL: WE ARE LOOKING FOR MULTIPLE DVD DRIVES. SAY

THERE ARE 5 OR 6 KIDS GETTING THE SAME LINK AT THE SAME TIME. WE WILL

SPREAD IT ACROSS THE DVD. IT WILL KEEP THE DOWN LOAN TIME QUICK

>>AUDIENCE MEMBER: QUESTION ABOUT YOUR SCREEN. YOU HAVE -- NOT THAT

ONE. YEAH.

SO THE SIGNING IS A STREAMING VIDEO. THE LOGO IS A STATIC OR IS

THAT ALSO.

>>RICHARD RIZZO: JUST AN IMAGE FILE.

>>AUDIENCE MEMBER: THE COMPUTER PICTURE, THE COMPUTER SCREEN, IS THAT

A STREAMING OR IS THAT -- BECAUSE I NOTICE THAT YOU HAVE THE MOUSE OR

THE ARROW MOVES AROUND. IS THAT STREAMING.

>>RICHARD RIZZO: STREAMING VIDEO.

ROUGH ASCII

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>>JAMES MALLORY: THE MOUSE AROUND, SAYING THIS IS A THORN.

>>AUDIENCE MEMBER: SO YOU HAVE THE AUDIO WHICH IS STREAMING AND THEN

THE CAPTIONING IS ALSO STREAMING.

>>RICHARD RIZZO: YES.

>>JAMES MALLORY: ONE OTHER THING WE TRIED THAT WASN'T SUCCESSFUL. WE

HAD A SMART WHITE BOARD. I WOULD BE HERE SIGNING AND POINT TO THE

WHITE BOARD AND BACK. YOU SEE A LOT OF MOVING AROUND. AND IT JUST

DIDN'T LOOK RIGHT. I WAS BASICALLY POINTING TO THIS. SO NOW IT KIND

OF USING TECHNOLOGY TO -- IT'S KIND OF LIKE -- I TEASE ABOUT THE TAIL

KIND OF WAGGING THE DOG, TRYING TO CHANGE MY INSTRUCTION TO FIT THE

TECHNOLOGY. SO INSTEAD OF POINTING TO A BOARD I USE THE MOUSE TO MOVE

IT ON TOP OF THE MONITOR. SO WE CAN CAPTURE IT
APPROPRIATELY.

>>AUDIENCE MEMBER: SO WHEN YOU ARE CAPTURING THE SCREEN,
ON OUR LEFT,

HOW MANY CAPTURES A SECOND ARE YOU DOING THAT. ARE YOU
DOING IT AS A

VIDEOTAPE, IS THAT --

>>RICHARD RIZZO: WE VIDEOTAPED IT FIRST. IT DIDN'T REALLY
WORK. SO

THIS WHAT WE DID IS I WENT IN AFTERWARD AND ACTUALLY JOSY
WEPT IN AND

WATCHED WHAT HE WAS DOING ON ONE SCREEN AND ACTUALLY
DID IT ON MY

LAPTOP AND WE CAPTURED IT DIRECTLY TO AN ADI FILE.

SO SHE JUST -- NORMALLY WE WOULD CAPTURE IT LIVE BUT I
THOUGHT THE

VIDEO WOULD BE BETTER AND IT TURNED OUT IT WASN'T.

>>JAMES MALLORY: SO WHAT WE WILL DO BASICALLY IS SIGN.
WHEN I MOVE

THE MOUSE, EVERYTHING IT'S CAPTIONING WHATEVER IS
HAPPENING ON THE

ROUGH ASCII

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MONITOR AT THAT TIME. SO THE MOVEMENT -- IT'S CAPTURING THE
ACTUAL

COMPUTER MONITOR, WHATEVER'S HAPPENING THERE. IF I AM
OPENING A FILE

OR MOVING, IT'S GOING TO CAPTURE THAT IN REAL-TIME. AND WE
WILL HAVE

TO MATCH IT UP. SO SYNCHRONIZES WHAT WE ARE SAYING.

>>AUDIENCE MEMBER: IF I UNDERSTAND WHAT YOU ARE SAYING, YOU HAVE SNAG

IT RUNNING ON YOUR COMPUTER IN THE BACKGROUND CAPTURING YOUR SCREEN 60

TIMES A SECOND OR WHATEVER.

>>RICHARD RIZZO: 15. WE HAVE 15 FRAMES A SECOND. IT DOESN'T HAVE TO

BE THAT -- WE CAN PROBABLY GO DOWN FROM THAT TO MAKE IT SMALLER.

>>JAMES MALLORY: AGAIN IT'S A TRADEOFF QUALITY BECAUSE EVER FILE

SIZE. YOU WANT TO GET JUST GOOD ENOUGH QUALITY SO YOU KNOW, IT LOOKS

GOOD BUT YOU WANT TO KEEP IT LOW OTHERWISE YOUR FILES GET HUGE.

>>AUDIENCE MEMBER: THANK YOU.

>>JAMES MALLORY: QUESTION?

>>AUDIENCE MEMBER: I MAY HAVE MISSED THIS. TELL ME WHY YOU DID THIS

IN THE BEGINNING. YOU WERE TEACHING A COURSE --

>>JAMES MALLORY: GOOD QUESTION. WE TEACH DISTANCE LEARNING TO DEAF

STUDENTS. WE ALREADY HAVE A COURSE C + + DEVELOPED WITH VIDEOTAPES. A

TWO COURSE SEQUENCE. IT'S WORKING GREAT. NOW WE WANT TO OFFER VISUAL

BASIC PROGRAMS. WE ARE NOT GOING TO PRODUCE VIDEOTAPES BECAUSE THAT'S

OLD TECHNOLOGY. SO WE WANT TO GET IN THE NEW TECHNOLOGY SO WE CAN

CAPTURE THIS.

>>AUDIENCE MEMBER: WHERE ARE THE DEAF STUDENTS YOU ARE TEACHING THIS?

ROUGH ASCII

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WHERE ARE THE DEAF STUDENTS.

>>JAMES MALLORY: ALL OVER THE COUNTRY. I HAVE STUDENTS COLORADO, NEW

JERSEY, NEW YORK. I EVEN HAD ONE STUDENT IN JAIL TAKING A COURSE.

SERIOUS. THEY SAY ANY TIME, ANY PLACE. (LAUGHTER).

YES, SIR.

>>AUDIENCE MEMBER: ONE MORE QUESTION. SUPPOSE I AM INTERESTED IN

YOUR C + + COURSE HERE AT HOME. WHAT DOES N.T.I.D. CHARGE TO TAKE A

COURSE LIKE THIS.

JAMES MALLORY: GOOD QUESTION. IT'S A CREDIT BEARING COURSE. SAME

DIVISION AS ON CAMPUS. N.T.I.D. HAS BEEN LAGGING. R.I.T. HAS BEEN IN

THE MARKET SINCE THE 80S, THEY ARE THE THIRD LARGEST INTERNET PROVIDER.

N.T.I.D. IS SLOW CATCHING UP. WE ARE GETTING ON THE BANDS WAGON. WHY

BECAUSE YOU HAD TO PLUNGE IN AND WE MADE PLENTY OF MISTAKES BUT WE TOOK

OUR LUMPS.

SO WE NOW HAVE A CERTIFICATE, CALLED INTRODUCTION TO PROGRAMMING

CERTIFICATE, WHERE THEY TAKE TWO C + + AND TWO VISUAL BASIC. THEY GET

COLLEGE CREDIT. THEY GET A CERTIFICATE AND IT'S A STAND ALONE. IF

THEY JUST WANT THAT SET OF SKILLS OR IT CAN APPLY TO AN ENTIRE ON-LINE

DEGREE WE HAVE HERE AT R.I.T. BUT MOST OF R.I.T. FOR ADA PURPOSES, THE

R.I.T. DISTANCE LEARNING COURSES WERE DEVELOPED BY INSTRUCTORS FOR

HEARING AUDIENCE. HERE IS A LECTURE. WE WILL HAVE CAPTIONING ON IT.

MOST OF YOU KNOW THAT'S NOT THE SAME AS DEVELOPING SOMETHING FROM

SCRATCH WITH THE DEAF AUDIENCE IN MIND. SO WE ARE TRYING TO DO THAT.

KIND OF A LONG-WINDED ANSWER TO YOUR QUESTION.

>>AUDIENCE MEMBER: IT HELPS THOUGH.

ROUGH ASCII

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>>JAMES MALLORY: OKAY. YES, MA'AM.

>>AUDIENCE MEMBER: LET'S SAY YOU HAVE THIS GREAT INSTRUCTIONAL LESSON

ALL PREPARED. AND YOU FOUND YOU HAVE TO INFORMATION AND YOU WANT TO

INSERT IT. IS THAT POSSIBLE?

>>JAMES MALLORY: WELL, INSERTED IN HERE? NO WE PROBABLY JUST

GENERATE A NEW MODULE. AND THAT'S A GOOD QUESTION BECAUSER DEVELOPING

VERY SMALL INSTRUCTIONAL MODULES SO WE PULL THIS ONE OUT. PUT THIS ONE

IN. INSTEAD OF ONE CONTINUOUS LECTURE THIS WILL ONLY BE ABOUT 10

MINUTES IN LENGTH.

THE INTERESTING THING FROM C + + A 50 MINUTE ON CAMPUS CLASS

USUALLY CONVERTS TO ABOUT A 15-MINUTE DISTANCE LEARNING LECTURE. PEER

LECTURE DELIVERY. I DON'T KNOW IT'S KIND OF SCARY TO ME. THAT REALLY

IF IT'S JUST UNINTERRUPTED CLEAR LECTURE DELIVERY, 15, 20 MINUTES MUCH

THE CLASS. THE REST IS INTERACTION, QUESTIONS. STUFF LIKE THAT.

THAT WAS PRETTY INTERESTING. YES, MA'AM?

>>AUDIENCE MEMBER: I WANTED TO ASK YOU ABOUT HOW MANY -- IT'S A

TWO-PART QUESTION. THE FIRST PART IS ABOUT HOW MANY MINUTES OR HOURS

OR WHATEVER OF STREAMING VIDEO DID YOU ALL PRODUCE?

>>JAMES MALLORY: OKAY. WELL WHEN WE FINISH WE WILL HAVE PRODUCED --

WE HAVE -- THIS IS A THREE CREDIT HOUR COURSE. SO IT WILL BE THREE

LECTURES WOULD BE ABOUT 1 HOUR A WEEK. SO A TEN WEEK COURSE WOULD BE

ABOUT 10 HOURS.

>>AUDIENCE MEMBER: OKAY.

>>JAMES MALLORY: ABOUT.

ROUGH ASCII

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>>AUDIENCE MEMBER: THE NEXT PART OF MY QUESTION IS HOW MANY HUMAN

HOURS DID IT TAKE TO PRODUCE THAT TEN HOURS OF STREAMING VIDEO?

>>JAMES MALLORY: OKAY. IN THE BEGINNING OR -- IN THE BEGINNING A LOT

(LAUGHTER). SO FAR A LOT. BUT WHAT WE HOPE IS LIKE JULY WILL DO PULL

PRODUCTION OF JUST WE NEED THE TEACHER, ONE VIDEO PERSON TO CAPTURE IT.

AND WE NEED ONE PERSON TO CONVERT IT. SO I WOULD SAY FOR ONE HOUR, I

AM REALLY KIND OF SHOOTING FROM THE HIP HERE. PROBABLY (COUNTING)

PROBABLY FOUR OR FIVE HOURS PER ONE -- LET'S SAY FOUR HOURS PER ONE

15-MINUTE STREAM. DOES THAT SEEM IN THE BALLPARK?

>>RICHARD RIZZO: YES.

>>STEPHEN CAMPBELL: COMBINING CAPTIONING AND THE SYNCHRONIZER.

>>JAMES MALLORY: SO IT'S PRETTY LABOR INTENSIVE WHICH IS WHY WE

HAVEN'T JUMPED ON THE BAND WAGON TO DO THIS.

>>AUDIENCE MEMBER: WHAT YOU WERE SHOWING US IS HOW YOU SET IT UP AND

HOW YOU DO IT. WHAT IS THE STUDENT GET WHEN THEY HAVE IT ON THE

SCREEN?

>>JAMES MALLORY: SAME THING.

>>AUDIENCE MEMBER: THAT?

>>JAMES MALLORY: THIS IS THE WEBSITE. THIS IS VISUAL BASIC. THESE

ARE PILOT MODULES. BOOM. WE HAVE AN INSTRUCTIONAL SITE WHICH I CAN

SHOW YOU, HAVE ALL THE INSTRUCTION, BLAH-BLAH, THEN IT WILL BE A LITTLE

BUTTON, CLICK HERE FOR THE VIDEO STREAM LECTURE. SO WE HAVE AN

INSTRUCTIONAL SITE. YOU CLICK, YOU JUMP TO HERE AND A LITTLE THING

ROUGH ASCII

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WILL POP UP. AN EXPLANATION FOR THAT PARTICULAR CONTENT AREA.

>>AUDIENCE MEMBER: THEN -- AS A STUDENT I COULD PAUSE IT. AND REWIND

AND GO BACK AND FORWARD AND THINGS LIKE THAT. SO IT MAY ACTUALLY TAKE

ME 50 MINUTES OR TWO HOURS TO GO THROUGH YOUR 15 MINUTES OF STREAMING.

>>JAMES MALLORY: SURE. ANOTHER ADVANTAGE, EVEN THOUGH THESE WERE

DEVELOPED WITH DISTANCE LEARNING WHAT A TREMENDOUS ADVANTAGE FOR ON

CAMPUS STUDENTS BECAUSE YOU KNOW YOU TEACH TO THE MIDDLE. YOU GOT

THESE STUDENTS THAT COME AND YOU HAVE -- A HIGH PERCENTAGE OF THE

QUESTIONS ARE ROUTINE THAT YOU ANSWER AGAIN AND AGAIN. SEE LOOK, GO

LOOK AT THIS. OKAY. AND AFTER YOU LOOK AT THIS, COME BACK AND I WILL

GLADLY HELP YOU. THAT FREES MY TIME UP FOR WHAT THEY HIRED ME FOR TO

HELP THE STUDENTS WHO REALLY NEED MY HELP NOT TO BE A ROBOT REPEATING

AGAIN AND AGAIN. AND THIS IS WONDERFUL FOR THAT.

AND 9 TIMES OUT OF 10 THAT SOLVES THE PROBLEM. BECAUSE IF YOU

HAVE BEEN TEACHING A WHILE, THE SAME -- YOU KNOW THE SAME THINGS COME

UP AGAIN AND AGAIN AND AGAIN. AND I WANT TO FIGURE OUT HOW TO DO THIS

FOR MY CHILDREN. THE SAME KIND OF THING

>>AUDIENCE MEMBER: SO THE IDEA IS ONCE THEY SIGN UP FOR THIS CLASS,

THEN THEY HAVE FULL ACCESS TO THAT MODULE. ANY TIME THEY FEEL THEY

NEED TO GO BACK AND REPEAT ONE OF THE LESSONS OR SOMETHING.

>>JAMES MALLORY: EXACTLY.

>>AUDIENCE MEMBER: THEY CAN DO IT ANY TIME, 24-7.

>>JAMES MALLORY: ANY TIME, ANY PLACE. THAT'S THE BIG BUZZ WORD ON

ON-LINE LEARNING.

ROUGH ASCII

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YEAH. SO IT FOLLOWS THE ASYNCHRONOUS MODEL. AND THIS AS -- AS A

STAND ALONE TOOL. WE ARE NOT THERE YET. OKAY.

AS A -- ONE OF YOUR TOOLS IN THE TOOLBOX, IT'S VERY VALUABLE. I

LOOK AT IT LIKE AN EXCERPT TER WITH A TOOLBOX. YOU HAVE A CHISEL.

SCREW DRIVERS. SAME WITH INSTRUCTION. WE HAVE VIDEO STREAMING, BUT

THEY ALSO HAVE A WEBSITE. WE ALSO HAVE YOU KNOW INSTRUCTOR. SO YOU

ARE NOT REALLY FORSAKING ANYTHING YOU DIDN'T HAVE BEFORE. BUT YOU ARE

ADDING A NEW FACET TO THAT. SO IT'S A STAND ALONE IS NOT THERE YET.

BUT BECAUSE OF TECHNOLOGY IT'S BECOMING A VIABLE OPTION FOR WHAT WE ARE

DOING.

SO THE SPEED OF THE WEB VARIES. THE THROUGH PUT DEPENDING ON --

SOMETIMES MY ROAD RUNNER CONNECTION AT HOME IS FASTER THAN THE T 1 HERE

ON CAMPUS. SO IT'S, THE WEB IS A FUNNY THING IN TERMS OF SPEED.

ANY OF YOU WANT TO ADD ANYTHING ELSE THAT MAYBE I --

>>STEPHEN CAMPBELL: THE INTENT WITH THE WEB. IF THEY HAVE A HIGH

SPEED CONNECTION. IF SOMEONE HITS A NETWORK AND IT PLUGS IN YOU CAN

DOWNLOAD THESE FILES. IT'S ONLY 8 OR 10 MEG.

>>AUDIENCE MEMBER: KIND OF A RELATED QUESTION. YOU HAVE A STUDENT

THAT I'M SURE WILL BE INTERESTED FOR THESE COURSES. YOU COVER IN THESE

COURSES HOW TO SEND MATERIAL TO THE PRINTER IN C + +.

>>JAMES MALLORY: WE COVER SOME OF THAT STUFF. THERE ARE BROCHURES ON

THE TABLE DOWNSTAIRS. THE CERTIFICATE PROGRAM I TOLD YOU ABOUT. A

LITTLE INFOMERCIAL. THEY EXPLAIN THE PROGRAM. HELP YOURSELF AND TAKE

A HAND FULL AND PASS THEM OUT. A LOT OF PEOPLE DON'T KNOW IT'S

ROUGH ASCII

AVAILABLE YET. SO THERE'S MORE INFORMATION ON THE WEB.

THE BROCHURES AND IF YOU GO TO R.I.T.EDU TOO, THEY ARE IN
THE

PROCESS OF MAKING THOSE MORE CLEAR TO ACCESS THE DISTANCE
LEARNING,

YES, MA'AM?

>>AUDIENCE MEMBER: WE HAVE BEEN THINKING ABOUT PUTTING
ON OUR WEBSITE

VIDEO STREAMING WITH EXPERTS DISCUSSING THE SPECIFIC
TOPIC. AND WHAT

IF THOSE INDIVIDUALS REALLY CAN'T SIGN FOR THEMSELVES. IS
THERE

ANOTHER AREA THAT WE MIGHT BE ABLE TO PUT IN CERTAIN
PRESENCE UP SO WE

CAN SEE (INTERPRETERS).

ALONG WITH THE CAPTIONING AND ALONG WITH --

>>STEPHEN CAMPBELL: YOU CAN TAKE OUT THE DISPLAY.

>>AUDIENCE MEMBER: GREAT.

>>JAMES MALLORY: THIS IS A VIDEO HERE. THIS IS A GUY FROM

WASHINGTON, D.C.. HE TOOK MY WORKSHOP. I JUST USED A
REGULAR

CAMCORDER, DIGITAL CAMCORDER, TOOK IT. PUT THE FIRE WIRE IN.
RICK'S

MY FIRST EXPERIENCE WITH PLAYING WITH ADOBE PREMIERE.
BOOM. NOW WE

CAN CAPTURE IT. I AM NOT A VIDEO PERSON. THE LIGHTING WASN'T
THAT

GOOD IN THERE. YOU CAN DEVELOP THIS STUFF. SO TO ANSWER YOUR

QUESTION, JUST TO CAPTURE A PERSON TALKING, MAYBE CAPTIONING. MAYBE

YOU DON'T NEED SIGN LANGUAGE.

SO THIS PART IS SIMPLE. WHEN YOU GET INTO INTEGRATING COMPUTER

MONITORS THEN IT GETS PRETTY HAIRY. SO. ANY OTHER QUESTIONS?

OKAY WE WILL STICK AROUND.

>>AUDIENCE MEMBER: IS THIS ALREADY IN PUBLIC? IS THIS UP?

>>JAMES MALLORY: IT'S IN THE PROCESS OF BEING.

ROUGH ASCII

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OKAY. ENJOY YOUR LUNCH.

>>AUDIENCE MEMBER: DO YOU FEEL IT IS FINISHED.

>>JAMES MALLORY: THE COURSE IS BEING OFFERED IN THE BEGINNING OF

SEPTEMBER. SO IT WILL BE FINISHED BY THEN.

>>AUDIENCE MEMBER: IN THE FALL YOU MEAN

>>JAMES MALLORY: YES.

>>AUDIENCE MEMBER: THANK YOU.