Captions

(T10D)

I Can SEE What you HEAR!

Pat Billies

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I CAN SEE WHAT YOU HEAR!

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This text 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: Good morning.

And welcome to our session.

I can see what you hear.

My name is Marcia Kolvitz and I'm from the post secondary education consortium at the University of Tennessee in Knoxville, and I'm presenting with my colleague, Pat Billies, who is from the northeast technical assistance center here at NTID/RIT.

If you aren't already familiar with PEPNet, we're a nationwide resource that provides outreach and technical assistance to educational institutions, primarily in post secondary environments but also in the transition from secondary to post-secondary.

We have a tremendous amount of resources and materials, and we'll touch on some of them today, but today's focus will be a little bit different than what we normally do.

Today our focus will be on three main topics.

We'd like to talk about the use of technology as it relates to classroom access, communication technologies among people, and a little bit on signaling devices.

Now, given the amount of information that we need to talk about during this very short session, we're only going to touch on things and we're not going to go into anything in great detail.

And that's really important to know because there are some sessions that are here at the conference that will, indeed, go into much more detail about the technologies.

But we'd like to give you a very broad overview of what's available so that you see a really good range of services and devices. As you know, the Internet has tremendously changed how we interact between Deaf and hearing people.

Deaf and hard-of-hearing people.

And even among hearing people.

We see the Internet, we see electronic communications, and the benefit for people who have a hearing loss, indeed, is the opportunity to see what's going on in text and in realtime.

And that makes things accessible for communicating, whether in a classroom situation or whether among people.

Okay.

So we're going to talk a little bit about classroom access.

Okay.

We're going to throw some acronyms here and some of the acronyms look alike so we'll try to clarify them as we go along.

The first one I'd like to talk about is called video remote interpreting, which is known as VRI.

Now, that's a way of using videoconferencing technology to provide interpreting services when you don't have interpreters right here.

For example, if we weren't fortunate enough to have our interpreters here with us today, we could beam them in from a remote location.

The remote location could be in another room in this building, or it could be in California.

It doesn't really matter.

As long as you have the technology to send the

interpreter across the airwaves.

Well what do you need?

We need a web camera.

Okay.

Those are pretty affordable.

We need a display screen.

Okay.

We can manage that.

Some type of a microphone or speaker to transmit the lecture from this room to wherever the interpreter is.

We need some software, and I'm going to get really technical here, okay?

You know, what the software does?

It's magic.

Okay?

Magically -- this is how I understand technology -- something happens, voila, and then the image appears.

Isn't that great?

(Laughter)

>> MARCIA KOLVITZ: Okay.

I know there are people here at the conference who can tell you exactly what happens.

I'm not one of them.

And neither is Pat.

So if you'd like that level of detail, we can help you find those folks.

But for us, we just rely on the fact that it is, indeed, magic.

Okay?

I trust that you will too.

And then, of course, we need a really fast Internet connection because anytime you're transmitting sign language through an Internet connection, you need to have something really fast so you don't see signs that move like this (demonstrating). And we've got a really nice graphic and a lot of our information will be supported by good graphics to help you understand visually what's happening.

And here you can see an interpreter whose name is Amy and she happens to work at the University of Wisconsin, Milwaukee, and she's interpreting a class that could be anywhere in the state of Wisconsin.

And she's just in a little room, but the important thing is, she's providing interpreting services for a classroom and that's why it's VRI.

When you're thinking about VRI, you might look at a situation where you don't have a large pool of interpreters who can come to your classroom.

You want to have some good connections via the Internet.

You want to think about your classroom.

Is it lecture?

Is it lab?

Is there a lot of interaction?

And how would this format work for that particular kind

of class?

Do you have a one-way connection, which means I'm transmitting my lecture but what happens when there are student questions and the student happens to be the Deaf student in the class?

How does the interpreter voice for that particular student?

So think about one-way or two-way connections.

Also remember that reading sign language from a monitor is a little bit different because we're moving to two dimensions instead of three.

So it's not impossible, and many of us learned sign language via video.

Okay.

I've been asked to slow down, and those of you who know me, okay, we'll try.

(Laughter)

>> MARCIA KOLVITZ: Thank you.

I'm sure the interpreters were wanting that, too, and so was our captioner.

Reading sign language from a screen may be more difficult.

And, of course, firewalls may be a problem.

We also see C.A.R.T., computer -- communication access realtime translation.

And that's what we've got going on over here on this screen.

We have my words being displayed on a screen.

It could also be a laptop.

And it's verbatim.

Which means they're giving pretty much a word-forword translation of what I'm saying.

In higher ed, we see it in classrooms, meetings, assemblies.

It's not uncommon at graduation to see C.A.R.T. provided for the entire room.

At the University of Tennessee, we use it in graduation and it's on our Jumbotron.

So you see all the names of the graduates who go through the ceremony.

Typically, the student using it is someone in a course with conference terminology.

It may be a student who is oral Deaf or a late deafened individual.

Skilled stenographers with additional training in captioning provide this service.

We have a good example of it here in the room.

Speech-to-text systems may provide an output that is similar to C.A.R.T., but it's more abbreviated.

The -- my words would also appear in the screen.

Instead of word-for-word translation, it's more meaning for meaning translation.

Although very fast speech-to-text providers can get pretty close to word for word.

It uses special software.

Again, the magic.

To condense everything and project it on the screen.

The two types we're most familiar with here are C-Print and that does have automatic speech recognition available, or TypeWell, and again, while the process may be different in inputting the information for those two, the output looks very much the same.

And I know here at the conference, there are workshops about C-Print.

The student who's typically using them, not very different than the student using C.A.R.T.

And trained captioners provide it using laptops and software.

Now, I've got some really good friends at Caption First, and they have been very generous with providing graphics to help illustrate how things are set up in the classroom.

And if you look at the far graphic, you can see a one-onone situation.

You have one student in the classroom, not unusual to have it projected to a laptop.

Here's a situation that we're using in this room.

With a larger group.

We also have the benefit of a video projection, so you can see me while you're reading the captions.

And here's kind of how it works out with all of the different machines.

It uses a video encoder, a projector, a camera.

Instead of having just a screen, you could also put TV

monitors in a large room.

Depending on your setup.

There's a variety of ways you can utilize this.

Remote C.A.R.T. is also possible.

If we weren't fortunate to have our C.A.R.T. providers here, we could in a way very similar to the connections for remote interpreting provide remote C.A.R.T.

The person could be in, oh, Kansas City and we could be here in Rochester.

The C.A.R.T. provider listens via a telephone or a speaker, types to a realtime account, and either works through a website that the student is logged into or the text appears on the computer screen of the student.

And here's a graphic of how that's set up.

You can see the distant C.A.R.T. person.

You can see clients.

This is a picture of how a conference call might work with C.A.R.T., but you can imagine a classroom setting very similar.

It's also possible to provide C-Print services via remote.

And we have another picture from our friends at the University of Wisconsin at Milwaukee who are really working hard at providing remote services, and you can see Kristin, who is a student in Eau Claire, Wisconsin, which is in the center of the state, and the services from Milwaukee, which is about 150 miles away, are being provided at the University of Wisconsin-Milwaukee.

Again, you need to have the good connections via the phone and the Internet.

There's a new product that's available for purchase

that's called caption MIC, and it uses a voice captioner to echo into a dictation mask what's being said in the classroom.

The teacher does not have the microphone, but an echoer has the microphone and repeats what I'm saying right after I'm saying it.

It utilizes speech recognition software to convert speech into captions.

The echoer has the ability to make corrections as he or she is reading what's being said on the screen.

It does take a minimum of 4 to 10 hours to teach the software to recognize the voice of the echoer.

But we'll talk a little bit about the accuracy of speech recognition and concerns we might have about that during a question-and-answer period at the end.

I'd like to get through a lot of the information before we get to questions about it.

I've not seen this being used yet in any classrooms, and if anyone has that experience, I'd really appreciate the feedback.

I've talked with people who provide the caption mic software and I'd really like to know more about it and how it's being used.

I believe they might be in the exhibit hall today during the conference.

Good.

The liberated learning initiative is also a process that utilizes speech recognition software, and I believe it initiated in Canada, and it has sites across the United States and other countries.

Providing speech recognition but the instructor is the

one who trains the software to his or her voice.

It uses a wireless microphone, and connects to a computer.

I've not seen demonstrations of this, either, but I know it's being used very successfully at some universities across the country.

Pauses in the speaker's speech give clues to when a sentence is over or when a new paragraph should start.

And the text is displayed as we have text displayed here in the class.

We've seen a tremendous amount of gain in the use of automatic speech recognition, and while it's not perfect and there are still some accuracy issues, we're seeing things change a great deal in just a very short amount of time.

As I mentioned earlier, C-Print has an automatic speech recognition component to it where trained C-Print captionists will utilize that as part of the service provided.

And these two other products I just described use speech recognition technology.

It's not really feasible to take a Dragon Dictate program right now, or ViaVoice and just give it to the teacher and say, "Go forward."

But we're seeing success when there's training involved and when there are service providers providing the information to the software.

Okay.

You can also caption webcasts.

If your educational component includes utilizing webcasts, our friends at Caption First have shared with us a graphic that includes really special magic stuff,

because it includes data servers and producer's websites and all kinds of wonderful things, but no longer do we have to worry about an audio conference that is inaccessible to an individual who is Deaf or hard-ofhearing.

Because we have the technology, with preplanning, to make it accessible.

With the use of captioners.

And, again, preplanning.

We know that captioning videos is a process that we're all accustomed to.

We look for purchasing videos, when they have the "CC," the closed caption icon on them.

We want to make sure that we look for materials that are readily accessible or we can caption our own, if they're in-house materials.

You also want to make sure that when you are displaying a video that has captions, whether they're open captions or closed captions, I've been to campuses where they have old TVs that don't have built-in decoders, and they've been inaccessible because there's not been a decoder attached to the TV to make sure that the captions can be shown.

Conversely, people complain that sometimes showing the captions is distracting for other students in the class.

So which wins out?

Sometimes having a closed captioned video with the ability to open the captions when needed is good because then you only show the captions when there are students who need the accessibility.

There is software that you can purchase to create your own captions and there are professional services

available.

In the back of your handout, there's a big resource list that gives you websites that can provide these services and additional information.

Rear window captioning.

Okay.

This is probably not something you're going to do on your campus.

But, I was at Disney World just a month ago, and I saw how they do this.

It's really, really cool.

They have a projector in the back of the room that projects the captions.

And the individual who needs the captions has a clear screen that they set up in front of their chair, and you can look through the clear screen and read the captions because it catches the captions as they come down from the projection.

Now, again, you're not going to use this on your campus, but it just shows you how technology has advanced and who knows where this may lead?

For our regular use.

Okay.

At this point, I'm going to turn this over to Pat Billies, who will talk about communication technologies.

>> PAT BILLIES: Am I hooked up?

I think so.

Okay.

Better grab this.

Thank you.

TTYs are only 40 years old.

It's amazing when you think of it.

TTYs started out huge!

The size of a clothes hamper.

And when they -- when they were operational, they kind of shook a little bit.

But for the first time, individuals who were Deaf could communicate with each other through the phone lines.

From that large hamper-sized device, we have now shrunk down very small and most people hardly use them anymore.

I used to have a TTY on my desk, and I would have long conversations with a TTY tape that wrapped all the way around my body and back down again.

I don't think I've used my TTY twice in the last year.

However, in the United States, there is a law that says for every bank of four telephones, one of them must be accessible for TTYs.

So if you're in a hotel, or whatever, or on your campus if you plan to have some stationary telephones set up, one of them for -- if there are four of them together, one of them must be accessible for TTYs.

But even that's changing the world.

A friend of mine sent her son to go use a regular wall telephone, and he had never used a coin-operated telephone. He had been completely dependent on cell phones.

So those may be disappearing from our sight as well.

Thank you.

Is there anyone in the room who's not familiar with the way a TTY -- telephone relay service -- operates?

>> AUDIENCE MEMBER: If you can explain it, I'd appreciate it.

>> PAT BILLIES: Okay.

I will explain.

Thank you.

Remember a few minutes ago, we talked about TTYs.

And two individuals or -- who are Deaf and have TTYs can communicate with each other, or an individual who is Deaf can communicate with someone who is hearing if they both have TTYs.

I have a TTY in my office, but not at home.

So if I am at home and I want to communicate with my boss who happens to be Deaf, I have no way directly to talk to her.

So in the United States, relay service has been established, and the way it works now is, if I'm initiating the call, I dial 711.

I am the voice user.

When I dial 711, I call a relay service.

And, by the way, the relay operator is -- now has a new name.

That person is a communication assistant, not a relay

operator anymore.

But I call the relay operator who has a telephone and a TTY.

So that person will ask me who I'm trying to contact, what the phone number is, and that person uses his or her TTY to call the person who is Deaf.

That person will type a response, which will show up on this person's screen, and then that person will voice to me.

And we will communicate back and forth through the communication assistant.

But it is a slow process.

Relay services through the TTY are being replaced with some video phones.

This is an early videophone, and by "early," I mean maybe two years ago.

When they first came out, they were only 15 frames per second, so ASL was very choppy and hard to read (demonstrating).

But for the first time, people who were Deaf could communicate fluently.

Slow, but fluently.

And the screens were very small.

Thank you.

Wow!

Have they come a long way!

There are two different ways that these are basically functioning now.

One way is through a product that's listed at the bottom here.

People abbreviate this and call them D links, but really the name of the product is I2 eye.

The I2 eye is essentially like a little web cam, kind of.

Kind of.

It sits on top of a television set.

It uses -- you -- a high-speed Internet connection.

Not the phone lines.

Not the phone lines.

It's free.

It goes through the Internet.

And people can communicate directly to each other, back and forth.

Now, I was commenting to my friend how lucky she was to be Deaf!

Because she could communicate directly with her grandchild and her grandchild could see her on a big wide-screen TV.

And she said to me, "Pat, you can do the same thing with your hearing grandchild."

I can -- we haven't done this yet, and I'm wasting time with it.

Because my little grandson lives 9 hours away from me, and we can talk -- he's only 4, and he's just now beginning to use the phone a little, but we can do this as well.

Many individuals who are Deaf don't want to commit

their big-screen TV to this.

Because every time a phone call came in, the football game would be disrupted.

(Laughter)

>> PAT BILLIES: Or a television program.

So many individuals who use these -- and they're wonderful -- will have a second smaller TV monitor with the I2eye on top of it.

Many of our phone companies are actually giving these to individuals who are Deaf.

To purchase these I2eyes, they're about 150 or \$175 each.

Why do the phone companies give them for free?

Because the money for them, supported by our government and you and I in our phone bills, the money is in the teleconferencing.

Thank you.

Now, just as we had a relay service for TTY -- and we went through how that worked before -- there is now available, and it is just wonderful, something called VRS.

Video relay service.

Here's the important distinction: In the beginning, Marcia talked about VRI, video remote interpreting.

Here's the difference: VRI is for people -- two people who are in the same room who can't communicate with each other, like I am a teacher and you are a Deaf student in my class, or I am a doctor and you are my Deaf client, or I am a Deaf doctor and you're my hearing patient.

Two people in the same room who can't communicate,

and normally would use the services of an interpreter, but the interpreter isn't available for whatever reason.

So I -- then, as the doctor -- would call and pay for video remote interpreting.

VRS is free!

It's -- in the united -- it's a free service.

It's a relay service.

Just as the TTY relay service functions, a person who is Deaf, with a web cam -- and that can be a web cam or the D-Link I2eyes -- calls the relay service through the Internet and the communication assistant also has a web cam, and a phone.

So they sign to each other, and this person speaks to the hearing individual and relays the conversation.

Now, I'm telling you, you would not know that you were speaking to someone who is Deaf.

Communication is that fast, that fluid.

You can interrupt each other.

You can communicate back and forth just as two individuals who are hearing can communicate.

And that whole issue of being able to interrupt each other is huge!

There were times in another position when someone who was Deaf would call me on the TTY and I would not be the right person for that individual to speak to.

But I -- that person would go on and on and tell me their whole life story and I had no way to say, "Hold.

Give me two seconds.

I'll transfer you to the right person."

So sometimes 5 or 10 minutes would be -- would go on with this long conversation and I couldn't let them know that there was a better person for them to speak to.

This is wonderful.

Several strong advantages.

First of all, an individual who is Deaf and a native ASL user can use sign!

They don't have to go to English the way a TTY forced them to do.

They could communicate fluently in their native language.

But other stuff, like facial expression and body gestures can be displayed very quickly and easily.

Thank you.

Really, on this campus and in other places that I've seen, VRS, what we just talked about, has taken over the market.

There is also an Internet relay service.

IP relay.

Free.

This came out before the VRS did, and I actually think VRS is pushing this in the background in favor of VRS.

But this is, again, an Internet relay service where you can place relay calls without the use of a TTY.

A larger text display area for individuals with low vision.

You can change the font size.

You can also split the screen, so that one person's comments would be on one side and another on the other side.

This is some free software that might have interest for you.

It's called NexTalk.

You can download it from their website NexTalk.com.

It can call or accept phone calls if you don't happen to own a TTY.

Now, remember before I told you with TTY relay service, that was my only way, five years ago, to communicate with my boss who is Deaf.

Today, I can do it from my home computer directly.

Using NexTalk.

This type of service is very handy in areas such as our state of Maine.

In our state, Maine is a very rural state, and people in the state capital would be in charge of the technology to give TTYs to secretaries and offices all over the state.

So they would bring in these people from all over the state to one location, train them on using a TTY, send them back home with the TTY, it would sit on their desk for a while.

Remember, it's not used much anymore.

Then they'd move it to a drawer.

Then that person would leave the job and a new secretary would come in who has no idea what this thing is, and that next person doesn't know a thing about the protocols of using a relay service.

So it's just -- you know, this is a wonderful alternative

for you that you might want to look into.

NexTalk.com.

CapTel.

CapTel stands for "captioned telephone."

They are wonderful for individuals who are hard-of-hearing with CapTel, it's slowly coming into all of the states in the United States, but with CapTel the phone company -- sprint or MCI or whatever -- would give an individual who's hard-of-hearing one of these special phones.

My own husband needs one desperately.

He's hard-of-hearing and frequently misunderstands what I'm trying to tell him because he can't hear those soft sounds anymore.

If he had one of these, every time he picked up the phone, it would automatically link to the CapTel service.

And then when he called me at work, my comments back to him would come through the phone, through the ear, but also show up in some captions on the top of the phone.

So if he missed something I said or he wasn't sure if I said 15 or 50, he can capture that here and make sure that he's correct.

They're wonderful for people who are hard-of-hearing.

But this is what's revolutionized the way we communicate.

These paging devices are the cell phones for the Deaf and actually for us, too.

We're going to talk about the Blackberry and the Sidekicks, but I want to tell you these Treos are giving

them a run for their money.

The palm Treos.

All of the administration here at NTID has gone to the Treos.

And I just bought one for myself.

Unfortunately, my department didn't give it to me as they got theirs, but I love my Treo.

Most individuals that I know who are Deaf love their Sidekicks and wouldn't trade them for the world.

Marcia has a Blackberry.

So-so, she says.

I know the Blackberries require the use of a server, but we're going to talk about pros and cons of these in just a second.

Thank you.

The Blackberry, I will tell you, is the most popular among hearing people who are business folks.

When I go through airports, I see these all the time.

They are good for a couple of great reasons.

One, their coverage.

And by that, I mean Verizon and sprint.

And, two, it very easily syncs with outlook.

So if you want your calendars and your contacts to sync up, that's a good thing.

The Treo does the same.

But most individuals who are Deaf don't like the

Blackberry because they can't access relay service easily.

So if they're -- if they have their pager and they want to order a pizza, it's -- even though it might say it has relay service, it doesn't function well.

One of my Deaf colleagues said she -- and she grew up in a Deaf family -- she never felt handicapped in her life until she had a Blackberry and she felt like her hands were tied behind her back.

(Laughter)

>> PAT BILLIES: The Sidekick is what has just taken over the Deaf world.

They now have a Sidekick II that is an upgrade.

The biggest detriment for me is the coverage isn't so good.

In the United States, it's a company called T-Mobile that has this -- the contract with the Sidekicks, and there are spaces in the United States where there's no coverage at all.

There's no towers.

I wouldn't get one because with the amount of travel I do, it wouldn't meet my needs.

But individuals who are Deaf love them because they can get to the relay, they can use instant messaging, they -- they're all the time.

As a matter of fact -- and the horrible day of 9/11, there were three individuals who are Deaf walking down.

They got out, walking down all those steps from the tower paging each other because they had no other way to communicate.

They didn't know what was going on, but they spent

their whole time with their thumbs, you know, communicating with each other.

It is -- it has become -- they are essentially cell phones for the Deaf and they are wonderful.

If I were trying to communicate with my Deaf students on a campus to tell them that class is cancelled or the interpreter can't be there or stay there, the interpreter will be five minutes late, or whatever reason, I wouldn't try to e-mail them.

Page them.

But it can also be used for document exchange and whatever.

A couple of devices that you might want to check into.

On this campus, we have several of these Interpretypes set up.

Interpretype was designed by a local Rochester man who owns a car repair shop, and he needed to communicate with his Deaf clients easily.

These are essentially two computer keyboards that talk to each other.

So the client can be on one side talking to him about, you know, when the car will be ready, and he can be over here saying, "Honey, your transmission needs to be replaced."

And they can communicate back and forth.

We use them on this campus, in the bursar's office, in the financial aid office, campus safety, where we're not likely to have someone present who knows sign language.

But these things aren't cheap.

They're over \$2,000 for a pair of them.

An alternative to that that you might want to look at is a product called AlphaSmart.

AlphaSmart is about \$300.

It's essentially a note-taking tool.

Where you can type in -- look at this.

AA batteries.

So there -- it's very easy to get power.

They last a long time.

The issue is, two of them don't communicate with each other.

You use one.

And I might type in and then hand it to you.

You read what I said, type your supply, hand it back.

So it's really not a lot different than paper and pencil, back and forth, back and forth.

But it's a little more techie.

There's something to look into if you're interested.

A taste of what's coming?

Communication assistant.

There is a product in -- with an FM system, which is an assistive listening device, there's a product called an FM -- a personal talker.

It's like an FM system with a little microphone that plugs into it.

And with an FM system, I can hear better what you're saying because the microphone is picking it up and feeding it to my ear.

This is an adaptation of that.

This man has a -- a device like this with a little microphone on it.

And I hold it out to you.

But instead of this coming into my ear through a headset or through a loop system, I wear special glasses, and what you are saying gets fed across in captions across my glasses.

It's in development in the state of Georgia.

And you have the website for that.

Instant messaging is a blessing and a curse.

I have no idea -- I have no idea why students aren't cheating on tests using IM.

And maybe they are.

>> MARCIA KOLVITZ: They are.

>> PAT BILLIES: Oh, they are.

>> MARCIA KOLVITZ: They are.

>> PAT BILLIES: Okay.

I'm sure they are.

(Laughter)

>> PAT BILLIES: Some campuses have barred the access to instant messaging on campus, but, of course, text messaging is, again, revolutionizing our world.

I haven't jumped on the bandwagon yet, you know.

And one last thing.

We're almost out of time.

I would be remiss if I didn't talk to you about smoke detectors.

There are portable smoke detectors that are available for hotel rooms, for example.

Don't use the portable ones in any dormitory setting permanently.

They're not meant as a permanent alerting system because they will only let the person know there's a problem when the smoke is in their room.

The whole hall can be filled with smoke, or the floor above or below, and if the smoke is not in that person's room, that device will not go off.

What you need to be sure you have in dormitories are hard-wired alarm systems.

That will Flash when there's a fire in the building and wake up a student.

Our time is up.

One of the things that we gave you on the next 10 slides or so are a whole lot of resources in each of the sections that we've covered today.

This is like a Flash course on what might be out there, and there's so much more in development.

Just stay tuned.

Thanks for coming and we'll be around if you have any questions.

(Applause)

>> PAT BILLIES: Thank you.

Don't forget your evaluation forms, please.

>> FACILITATOR: Make sure you put the session number on it also, please.

number on it also, please.

>> PAT BILLIES: This is session what.

>> FACILITATOR: T10D.

>> PAT BILLIES: T10D.

Thank you.

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(Session ended at 11:00 a.m. ET)

Close