**Interview 1:**

**Interviewee: Endicott, Sarah A**

**1. Could you tell me a bit about you and your field?**

I started as an occupational therapist, got to Ga Tech in 1984, and have been here ever since. I began work in the Center for Rehab Technology to collect information about assistive technology, all in paperback. I cataloged it and then mailed it to people who wanted information about the technology. Now the department is called the Center for Assistive Technology and environmental access for CATIA. And we ended up getting funding from lots and lots of different government organizations. We started a couple of RRC rehabilitation engineering research centers where we researched people with disabilities and about 20. Five years ago, I was also approached by uh disability services and asked to be on standby for students who had mobility needs. Also have been doing a lot of the materials for our students with vision impairments and changing materials into an accessible format is pretty important because they need to be able to read it with a screen reader.

We are making an old database accessible and usable for people to find accommodations for the workplace for aging in place to make it accessible to as many folks as possible.

1. **In your experience, what are the challenges visually impaired users encounter when using websites?**

I work with all students with disabilities, currently focussing on blind students. If we're talking written materials, there are a couple of challenges that are interesting to try and bypass. The first challenge is that some of these professors are saving their materials as a picture. And when you save materials as a picture, even though it might be a PDF file, the materials as a picture within the PDF file screen reading technology only picks it up as a blank. It doesn't pick up the text even if there's text on the page. And then the second challenge is math because unless you write math in a specific format. Screen reading technology doesn't pick it up. When I say a particular format, a couple of math editors can create the math and the latex-type technology or software that can generate math in a format that the screen readers can read. And as you know, with GA Tech being a STEM school, quite a bit of math is involved.

1. **Can you give me an example of how you apply different tools, applications, and methods to help users overcome their challenges?**

We have students that are low vision as well as students that are blind. So depending on the student's impairment, they might use screen reading technology.

Some of our students just simply need magnification. We also use a magnification device called the CCTV for some students who want to take a test on paper but can't read if it's a 12-point font. For deaf students, we use close captioning. We also use Claro Read (for pdf files), read & write gold for reading text. We use Bluetooth for audio amplification to hearing aids for deaf students. Braille readers are also used.

1. **What aspects of creating accessible content is most challenging, why are they challenging? and how have you overcome these challenges? Can you tell me about your process when you make these changes?**

One of the most challenging aspects of creating accessible content is image descriptions. This is challenging because it's an art that needs proper training to master. Moreover, creating math content for screen readers is also a challenge as there are different ways to do it, depending on the reader used by the student. We found that Jaws prefers math equations created in MathType, while NVDA prefers office math. As a solution, we create the math in MathType and convert it to the one that NVDA understands.

1. **Can you share any experiences where you modified content? What changes were made?**

We once had a student who needed math content to be compatible with NVDA. We were able to go in and modify the document, changing the MathType equations into office math. Additionally, we discovered some people are more skillful than others at describing pictures and graphs. We had a student worker who understood the flow charts and was able to replicate it in text format for a visually impaired student.

1. **What aspects of creating accessible content is most challenging, why are they challenging? and how have you overcome these challenges? Can you tell me about your process when you make these changes?**

Creating accessible content can be challenging when it comes to image descriptions and math content. One way to overcome this is through training and workshops. For example, Valerie Morrison put on a workshop on doing descriptions that was very beneficial. As for mathematics, knowing where to put parentheses, decimal points, and other mathematical symbols is crucial for screen readers to correctly interpret the content. The advancement of AI technology has also been helpful in creating accessible content, though it's not always reliable.

**Follow up: How do you evaluate the response of these students to these modifications and alter your methods to better accommodate them?**

The evaluation process is based on the feedback we receive from the students. We have also used AI technology to simplify descriptions and found it helpful. However, there are still challenges, such as outdated course materials and content owned by outside parties. The ideal solution would be to have course content creators use scanning software that can check the accessibility of course materials and suggest improvements. However, not all professors or content creators use this technology. For this reason, we sometimes need to work closely with the students, helping them understand the content and adjust it for their needs.

**Follow-up: What aspects do you think we should focus on the most when it comes to visually impaired students?**

When it comes to visually impaired students, the focus should be on image descriptions and mathematics. Also, course content creators should be taught better approaches to create accessible materials. In addition, the age and origin of course content can be a challenge. We have run into issues with online content that's old and doesn't belong to the institution. Such content can be difficult to make accessible if we don't have the background material or if it's copyrighted by someone else.

These answers illustrate the complex process and challenges that come with creating accessible content, as well as the dedication and creativity required to make education accessible for all students.

**Raw Transcript:**

0:0:0.0 --> 0:0:1.260   
El Shammas, Lama Rita   
Hello. Hello.

0:0:9.50 --> 0:0:9.730   
El Shammas, Lama Rita   
Hello, Diane.

0:0:10.520 --> 0:0:12.260   
Li, Jiaying   
Hi, can you hear me?

0:0:13.140 --> 0:0:13.280   
El Shammas, Lama Rita   
Yes.

0:0:17.40 --> 0:0:19.50   
El Shammas, Lama Rita   
I started the transcription.

0:0:21.350 --> 0:0:21.730   
Li, Jiaying   
All right.

0:0:25.240 --> 0:0:27.960   
Li, Jiaying   
Is there anything I need to do during the interview?

0:0:29.120 --> 0:0:29.670   
El Shammas, Lama Rita   
Hello, Sarah.

0:0:33.110 --> 0:0:34.340   
Endicott, Sarah A   
And dishing my lunch. Sorry.

0:0:35.350 --> 0:0:37.100   
El Shammas, Lama Rita   
No, but I could see.

0:0:42.400 --> 0:0:43.320   
Endicott, Sarah A   
Is it just gonna be?

0:0:43.770 --> 0:0:44.450   
Endicott, Sarah A   
There's two of you?

0:0:45.520 --> 0:0:45.720   
El Shammas, Lama Rita   
Yeah.

0:0:46.420 --> 0:0:46.540   
Li, Jiaying   
Yeah.

0:0:46.680 --> 0:0:48.220   
Endicott, Sarah A   
Alright, it's gonna be more.

0:0:48.260 --> 0:0:50.890   
El Shammas, Lama Rita   
If you don't, I don't think so.

0:0:51.200 --> 0:0:54.370   
El Shammas, Lama Rita   
But if you don't mind, where have the transcription on?

0:0:54.380 --> 0:0:59.310   
El Shammas, Lama Rita   
Just so we can get your answers right as they are.

0:1:0.250 --> 0:1:0.790   
Endicott, Sarah A   
You got it.

0:1:1.930 --> 0:1:3.890   
El Shammas, Lama Rita   
OK. How how?

0:1:3.900 --> 0:1:4.680   
El Shammas, Lama Rita   
How has your day been?

0:1:5.900 --> 0:1:7.410   
Endicott, Sarah A   
It's been a little bit busy.

0:1:8.310 --> 0:1:8.490   
El Shammas, Lama Rita   
Yeah.

0:1:7.680 --> 0:1:10.830   
Endicott, Sarah A   
I've been creating accessible content for students who are blind.

0:1:11.960 --> 0:1:12.180   
El Shammas, Lama Rita   
Yeah.

0:1:15.280 --> 0:1:16.210   
El Shammas, Lama Rita   
Thank you for that.

0:1:16.220 --> 0:1:24.590   
El Shammas, Lama Rita   
Honestly, your work, I mean, I hope we can help you as much as we can, but you are really making an enormous change.

0:1:24.600 --> 0:1:29.830   
El Shammas, Lama Rita   
The students and giving them access to something like that, they should all have.

0:1:31.220 --> 0:1:33.450   
Endicott, Sarah A   
Would you excuse me a moment?

0:1:33.460 --> 0:1:36.240   
Endicott, Sarah A   
I'm gonna run and shut my dog up.

0:1:38.950 --> 0:1:39.550   
El Shammas, Lama Rita   
Of course.

0:1:42.440 --> 0:1:42.720   
El Shammas, Lama Rita   
Where?

0:1:39.150 --> 0:1:43.730   
Endicott, Sarah A   
As he will bark for the entire hour, they're give me just a minute.

0:1:57.340 --> 0:2:3.90   
Li, Jiaying   
So is there anything I need to do during the interview or I'm just listening and?

0:2:3.0 --> 0:2:9.610   
El Shammas, Lama Rita   
I mean, if, uh, I have six questions that I wanna ask.

0:2:9.620 --> 0:2:12.950   
El Shammas, Lama Rita   
And if you have any other questions you wanna ask, of course, ask her.

0:2:12.960 --> 0:2:14.190   
El Shammas, Lama Rita   
This is why we have this meeting.

0:2:15.230 --> 0:2:15.610   
Li, Jiaying   
Alright.

0:2:30.950 --> 0:2:31.590   
El Shammas, Lama Rita   
Under control.

0:2:28.700 --> 0:2:33.240   
Endicott, Sarah A   
OK, now I don't have to be distracted.

0:2:37.60 --> 0:2:38.320   
El Shammas, Lama Rita   
We love dogs, don't we?

0:2:37.450 --> 0:2:43.550   
Endicott, Sarah A   
So yeah, So what kind of stuff do you guys wanna know today?

0:2:44.330 --> 0:2:44.840   
El Shammas, Lama Rita   
OK.

0:2:44.850 --> 0:2:47.520   
El Shammas, Lama Rita   
So can we start with a broad question?

0:2:48.150 --> 0:2:51.990   
El Shammas, Lama Rita   
Can you tell me a bit about yourself and the field that you work in?

0:2:54.240 --> 0:2:54.480   
Endicott, Sarah A   
Sure.

0:2:55.630 --> 0:3:11.250   
Endicott, Sarah A   
Umm, I started off as an occupational therapist and got to tech in 1984 and have been here ever since.

0:3:11.560 --> 0:3:27.720   
Endicott, Sarah A   
When I came to tech, I actually started working in a place called the Center for Rehab Technology, and it was my first job was to collect met information about assistive technology, all on paperback.

0:3:27.730 --> 0:3:49.990   
Endicott, Sarah A   
Then mind you, catalog it and then mail it out to people who want to information about the technology and over the years our center turned into this from the Center for rehab technology turned into the Center for Assistive Technology and environmental access for CATIA.

0:3:50.880 --> 0:4:12.360   
Endicott, Sarah A   
And we ended up getting funding from lots and lots of different government organizations and actually started a couple of what are called RRC rehabilitation engineering research centers where we did research on for people with disabilities and about 20.

0:4:13.540 --> 0:4:26.620   
Endicott, Sarah A   
Five years ago, I was also approached by uh disability services and asked to be umm basically on standby for students who had needs for mobility.

0:4:47.140 --> 0:4:47.360   
El Shammas, Lama Rita   
Yeah.

0:4:27.610 --> 0:4:48.140   
Endicott, Sarah A   
Accommodations or wayfinding training on campus and over the years we also then are my original center turned into the ID I the Center for Inclusive Design and Innovation, which I think you had copied on the email.

0:4:49.700 --> 0:5:8.100   
Endicott, Sarah A   
And so at this point I am 50% there and 50% at disability services and it's kind of evolved that I have turned into the I don't wanna call it a specialist, but I certainly have got my share of.

0:5:9.520 --> 0:5:47.770   
Endicott, Sarah A   
Technology or of assistive technology work and also have been doing a lot of the materials for our students with the vision impairments which were up to 12345, at least seven at this point and most of them are completely blind and so, uh, changing materials into an accessible format is pretty important because of them needing to be able to read it with a with the screen reader.

0:5:49.720 --> 0:5:57.390   
Endicott, Sarah A   
So ah, and over the years I've just participated through CIDI in a variety of research projects.

0:5:58.0 --> 0:5:59.440   
Endicott, Sarah A   
Right now we're working on.

0:6:0.760 --> 0:6:28.630   
Endicott, Sarah A   
Making an old old database accessible and usable for people to find accommodations for workplace for aging in place for and for umm, just in general across the country so that they we can repurpose the database to be able to make it accessible to as many folks as possible.

0:6:31.640 --> 0:6:32.410   
El Shammas, Lama Rita   
That's beautiful.

0:6:29.560 --> 0:6:35.30   
Endicott, Sarah A   
So and I've done bits and pieces over the years with the VA.

0:6:37.400 --> 0:6:39.200   
Endicott, Sarah A   
So I mean I I get around.

0:6:40.80 --> 0:6:40.950   
El Shammas, Lama Rita   
Yeah.

0:6:41.60 --> 0:6:50.460   
El Shammas, Lama Rita   
And if I understood correctly, you are working on generalizing this for all universities to use not only for Georgia Tech.

0:6:50.630 --> 0:6:51.360   
Endicott, Sarah A   
Yeah.

0:6:51.450 --> 0:7:4.750   
Endicott, Sarah A   
So it'll be, I mean it's the database originally was called able data and it started probably about 40 years ago, definitely at least 30 years ago.

0:7:5.430 --> 0:7:5.650   
El Shammas, Lama Rita   
OK.

0:7:6.200 --> 0:7:20.420   
Endicott, Sarah A   
And over the years it got updated and you know reformed and, you know, tech went up direct competition with it at the one point in time where the a database called assistivetech.net.

0:7:21.880 --> 0:7:25.500   
Endicott, Sarah A   
And then finally, when able data decided to.

0:7:27.0 --> 0:7:40.20   
Endicott, Sarah A   
Close down pack basically appropriated it and and we're going to be hopefully relaunching it within the next two years.

0:7:42.170 --> 0:7:42.370   
El Shammas, Lama Rita   
That's.

0:7:41.480 --> 0:7:46.220   
Endicott, Sarah A   
So with all these different projects that are trying to get the assistive technology to the people.

0:7:48.460 --> 0:7:49.190   
El Shammas, Lama Rita   
That's amazing.

0:7:50.670 --> 0:7:58.600   
El Shammas, Lama Rita   
I really hope what we could get out of this project could really help you because we're not look so in this project.

0:7:58.610 --> 0:8:7.20   
El Shammas, Lama Rita   
We're not focusing on how to change the material, but how to help the designers and the design thinking process of producing these materials.

0:8:7.530 --> 0:8:13.120   
El Shammas, Lama Rita   
So I wish, I hope we can be an added value to the designers.

0:8:14.880 --> 0:8:15.50   
Endicott, Sarah A   
No.

0:8:15.900 --> 0:8:17.630   
El Shammas, Lama Rita   
Ohh my follow up question.

0:8:17.760 --> 0:8:27.100   
El Shammas, Lama Rita   
Do you are you focusing now on visually impaired students or are you also working with students with other disabilities?

0:8:28.10 --> 0:8:41.490   
Endicott, Sarah A   
I work with all students on all types of disabilities, but it seems that I have sort of evolved into the person who the blind students are assigned to.

0:8:43.150 --> 0:8:44.570   
El Shammas, Lama Rita   
Oh, OK, OK.

0:8:48.960 --> 0:8:49.480   
El Shammas, Lama Rita   
Ohh.

0:8:44.960 --> 0:8:52.570   
Endicott, Sarah A   
I actually have two student workers all to myself, just to help out with the materials. Wait.

0:8:51.950 --> 0:8:59.470   
El Shammas, Lama Rita   
I hope we can talk to them because we need more interviews and as much data as we can get as better.

0:9:2.730 --> 0:9:7.160   
Endicott, Sarah A   
Yeah, you'll have to wait till closer to fall for one of them.

0:9:8.930 --> 0:9:9.190   
El Shammas, Lama Rita   
Ohh.

0:9:7.170 --> 0:9:13.250   
Endicott, Sarah A   
She's at home and NN USA somewhere.

0:9:17.130 --> 0:9:17.590   
El Shammas, Lama Rita   
OK.

0:9:17.670 --> 0:9:27.310   
El Shammas, Lama Rita   
My other question would be, in your experience, what are the challenges that these visually impaired students encounter when using?

0:9:29.600 --> 0:9:32.870   
El Shammas, Lama Rita   
The educational materials that are given by professors.

0:9:33.530 --> 0:9:33.980   
Endicott, Sarah A   
Alright.

0:9:33.990 --> 0:9:46.770   
Endicott, Sarah A   
If we're talking written materials, there's basically a couple of challenges that are there interesting to try and bypass.

0:9:48.50 --> 0:9:59.880   
Endicott, Sarah A   
The first challenge is that uh, some of these professors are saving their materials as A picture.

0:10:1.620 --> 0:10:13.610   
Endicott, Sarah A   
And when you save materials as a picture, even though it might be a PDF file, the materials as a picture within the PDF file screen reading technology only picks it up as a blank.

0:10:14.540 --> 0:10:14.990   
Endicott, Sarah A   
They don't.

0:10:15.60 --> 0:10:19.810   
Endicott, Sarah A   
It doesn't pick up the text even if there's text on the page.

0:10:20.900 --> 0:10:32.640   
Endicott, Sarah A   
And then the second thing that the students have the most challenged with is math, because unless you write math in a specific format.

0:10:34.910 --> 0:10:57.830   
Endicott, Sarah A   
Screen reading technology doesn't pick it up though, and when I say a specific format, there's a couple of math editors that can be used to create the math and the latex type technology or latex type software that can create math in a format that the screen readers can read.

0:10:59.620 --> 0:11:1.160   
Endicott, Sarah A   
So those are the two big challenges.

0:11:2.740 --> 0:11:7.670   
Endicott, Sarah A   
And as you know, with tech being a STEM school, there's quite a bit of math involved.

0:11:9.270 --> 0:11:11.280   
El Shammas, Lama Rita   
Of course, of course.

0:11:13.830 --> 0:11:23.600   
El Shammas, Lama Rita   
And so can you give me an example of how you apply the different tools and applications and methods to help users overcome their challenges?

0:11:23.610 --> 0:11:34.240   
El Shammas, Lama Rita   
Like when you when you have you're saying use the screen reader so it's mostly using the screen reader but it it it's more complex than that of course.

0:11:34.690 --> 0:11:36.820   
El Shammas, Lama Rita   
So could you give me an example?

0:11:38.640 --> 0:11:51.780   
Endicott, Sarah A   
OK, so depending upon the students visual impairment and we have students that are low vision as well as students that are blind.

0:11:52.950 --> 0:11:59.730   
Endicott, Sarah A   
So depending upon the students impairment, they might actually use the screen reading technology.

0:11:59.740 --> 0:12:1.280   
Endicott, Sarah A   
There's a couple of different ones.

0:12:1.910 --> 0:12:8.60   
Endicott, Sarah A   
The most, the most common one being a program called JAWS.

0:12:10.100 --> 0:12:16.550   
Endicott, Sarah A   
And then there's a free program called NVDA Feed Dai.

0:12:16.560 --> 0:12:17.390   
Endicott, Sarah A   
Think it is?

0:12:17.660 --> 0:12:18.100   
Endicott, Sarah A   
Hold on.

0:12:21.170 --> 0:12:22.680   
Endicott, Sarah A   
On my desktop, sorry.

0:12:27.630 --> 0:12:28.640   
Endicott, Sarah A   
It's called.

0:12:31.400 --> 0:12:32.330   
Endicott, Sarah A   
Yeah, NVDA.

0:12:34.700 --> 0:12:37.610   
Endicott, Sarah A   
So NVDA is a free program.

0:12:43.860 --> 0:12:44.0   
El Shammas, Lama Rita   
No.

0:12:37.620 --> 0:12:45.910   
Endicott, Sarah A   
It's open source, so that's why we don't use it at tech, but a lot of people do use it.

0:12:46.40 --> 0:12:47.910   
Endicott, Sarah A   
Tech doesn't like software that's open source.

0:12:51.120 --> 0:13:1.630   
Endicott, Sarah A   
So and it's it's a pretty useful little program and it's way more affordable than jaws.

0:13:1.640 --> 0:13:5.780   
Endicott, Sarah A   
Jaws is can be quite expensive depending on what version you get of it.

0:13:6.680 --> 0:13:12.830   
Endicott, Sarah A   
I'm so the people that are very low vision to blind.

0:13:12.880 --> 0:13:24.810   
Endicott, Sarah A   
I'll often use those screen reading technologies, but we also have students that can simply get their technology blown up in as far as magnified.

0:13:24.920 --> 0:13:32.390   
Endicott, Sarah A   
So instead of writing a print out or printing. A paper on 8 and a half by 11.

0:13:32.660 --> 0:13:37.390   
Endicott, Sarah A   
We printed on 11 by 17 paper just to fill the page.

0:13:37.720 --> 0:13:41.620   
Endicott, Sarah A   
That sometimes is more than adequate for students with low vision.

0:13:42.920 --> 0:13:46.50   
Endicott, Sarah A   
We've also got magnification technology.

0:13:47.80 --> 0:13:51.910   
Endicott, Sarah A   
Most computers have got some sort of built-in technology.

0:13:52.440 --> 0:14:5.320   
Endicott, Sarah A   
Especially the the Apple computers, Apple was the mother and father of all 80 that is used by most students in the country.

0:14:6.200 --> 0:14:28.900   
Endicott, Sarah A   
Baby, even the world that ranges from, you know, counting programs and magnification and voice output and but PC's are catching up not as fast, but they are catching up, like for example, if you downloaded through your student portal the.

0:14:29.700 --> 0:14:45.10   
Endicott, Sarah A   
Uh, the Microsoft package that includes word, the new versions of word are having the speech to text and text to speech.

0:14:45.640 --> 0:14:47.580   
Endicott, Sarah A   
Umm, already built into it.

0:14:49.50 --> 0:14:50.920   
Endicott, Sarah A   
And but I, like I said.

0:14:50.930 --> 0:14:57.880   
Endicott, Sarah A   
Apple said that forever, uh, back in this, they started off when Apple first started off in the garage.

0:14:59.80 --> 0:15:6.160   
Endicott, Sarah A   
It they used it even from that early on to make more accessible content for students.

0:15:6.950 --> 0:15:7.290   
Endicott, Sarah A   
Umm.

0:15:7.970 --> 0:15:21.720   
Endicott, Sarah A   
Typically at that point it was, you know, K through 5K through 12, but it's come a long way with now broadening the population that can use it, and those are built in to the system.

0:15:22.10 --> 0:15:27.210   
Endicott, Sarah A   
There's nothing you have to go out and buy or or download from somewhere else.

0:15:28.30 --> 0:15:28.420   
Endicott, Sarah A   
Umm.

0:15:28.930 --> 0:15:33.890   
Endicott, Sarah A   
So we've also got students who, uh, can use certain apps.

0:15:34.770 --> 0:15:38.830   
Endicott, Sarah A   
Uh, there's a number of apps out there that are taking text.

0:15:39.540 --> 0:15:40.110   
Endicott, Sarah A   
Excuse me?

0:15:40.120 --> 0:15:54.690   
Endicott, Sarah A   
Taking speech and converting it to text, we have a piece of software at disability services called GLEAN that also not only uh audio records, the what's going on around it, but it can.

0:15:54.700 --> 0:16:0.550   
Endicott, Sarah A   
You can take that audio recording and turn it into a text document after the fact with with the AI technology.

0:16:2.40 --> 0:16:4.80   
Endicott, Sarah A   
Umm, uh.

0:16:4.180 --> 0:16:6.910   
Endicott, Sarah A   
Some of our students just simply need magnification.

0:16:8.400 --> 0:16:16.310   
Endicott, Sarah A   
Our low vision students simply need magnification, so we have one one student who actually has a thing, she says.

0:16:16.320 --> 0:16:24.910   
Endicott, Sarah A   
A A 50 inch screen for her computer was pretty big and she just runs a line of text across her screen.

0:16:25.200 --> 0:16:30.500   
Endicott, Sarah A   
That's about as tall as the monitor, and she could read it letter by letter.

0:16:30.830 --> 0:16:37.710   
Endicott, Sarah A   
It's not easy or comfortable necessarily, but it does make certain things accessible to her.

0:16:38.710 --> 0:16:44.540   
Endicott, Sarah A   
Unfortunately, she's also got a condition that gives her double vision.

0:16:44.850 --> 0:16:53.690   
Endicott, Sarah A   
So she has an interesting time with math, because especially math when it's like squared or cubed or what have you.

0:16:53.780 --> 0:17:4.620   
Endicott, Sarah A   
Those little symbols that are sort of just out there, and if you're looking at a with double vision, it isn't very clear.

0:17:4.630 --> 0:17:5.920   
Endicott, Sarah A   
So she backs her.

0:17:5.990 --> 0:17:7.790   
Endicott, Sarah A   
Her reading up with a screen reader?

0:17:9.550 --> 0:17:10.0   
Endicott, Sarah A   
Umm.

0:17:10.550 --> 0:17:29.570   
Endicott, Sarah A .

0:17:29.790 --> 0:17:39.770   
Endicott, Sarah A   
So he uses the CCTV to change his to view the document and it it goes much faster for him as a result.

0:17:39.980 --> 0:17:50.50   
Endicott, Sarah A   
So of using that technology and we've also got you know, even the simplest things like a magnifying glass.

0:17:50.540 --> 0:17:58.370   
Endicott, Sarah A   
You have a device that's looks like a ruler that's got a bump in the middle, and the bump has been colored a different color.

0:17:58.860 --> 0:18:20.100   
Endicott, Sarah A   
When I said the a bump, it's actually a a mini magnification strip and people can put it on their paper and using the yellow stripe keep it lined up from line to line to line with whatever they're reading and that yellow stripe area also does the magnification and you can come by our office and see this stuff.

0:18:21.390 --> 0:18:23.250   
El Shammas, Lama Rita   
Of course, I'd like to thank you.

0:18:30.530 --> 0:18:30.850   
El Shammas, Lama Rita   
Umm.

0:18:20.110 --> 0:18:31.290   
Endicott, Sarah A   
If you want stop, I haven't plugged the CCTV in yet, but because we don't know where we're gonna be storing it for the student.

0:18:31.300 --> 0:18:33.990   
Endicott, Sarah A   
Who's gonna be using it from this semester going forward?

0:18:34.320 --> 0:18:34.590   
Endicott, Sarah A   
So.

0:18:36.190 --> 0:18:48.810   
Endicott, Sarah A   
So then another thing that we do is we help our students with disabilities to ensure they have access to materials like, say, our deaf students.

0:18:49.610 --> 0:18:55.450   
Endicott, Sarah A   
Umm, but are you predominantly interested in students with visual impairments or all students?

0:18:56.70 --> 0:19:8.680   
El Shammas, Lama Rita   
So at first we started our project being brought to all disabilities, but we felt like we should focus on one disability and we chose visually impaired students.

0:19:8.970 --> 0:19:18.980   
El Shammas, Lama Rita   
But we are interested in people with the sexier people that are deaf because we might broaden it up.

0:19:18.990 --> 0:19:24.840   
El Shammas, Lama Rita   
And if we felt like this stage is done, then we could move to other disabilities.

0:19:25.730 --> 0:19:28.280   
Endicott, Sarah A   
Well, I'll just touch upon a couple of things.

0:19:28.850 --> 0:19:29.160   
El Shammas, Lama Rita   
Takes.

0:19:28.290 --> 0:19:30.260   
Endicott, Sarah A   
Like what our deaf students use?

0:19:30.770 --> 0:19:33.290   
Endicott, Sarah A   
Uh, they use a lot with captioning.

0:19:34.850 --> 0:19:38.850   
Endicott, Sarah A   
Umm both of videos and of lectures.

0:19:39.520 --> 0:19:40.110   
Endicott, Sarah A   
Are they?

0:19:40.290 --> 0:19:50.880   
Endicott, Sarah A   
The videos usually are are, are contain, what's called close captioning or open captioning, where closed captioning, you can turn it on and off to see it.

0:19:51.480 --> 0:19:56.890   
Endicott, Sarah A   
And so if somebody doesn't want to see this captioning, they just turn it off.

0:19:57.120 --> 0:20:16.40   
Endicott, Sarah A   
Open captioning means that it's on the screen all the time, and you can't turn it off, so captioning is away, and that's one thing that we've been having a challenge with with our deaf students is that we have some professors who created all this beautiful content and never got it captioned.

0:20:16.400 --> 0:20:16.740   
El Shammas, Lama Rita   
Ohh.

0:20:17.40 --> 0:20:36.220   
Endicott, Sarah A   
And we've had one death student who's had to take a Class 4 different times because she had to drop it each time because we make a few steps forward progress and then she'd get to a point where it's the the materials that they were using weren't umm captioned.

0:20:36.590 --> 0:20:41.680   
Endicott, Sarah A   
And it makes it very inaccessible for students that are deaf.

0:20:41.790 --> 0:20:50.540   
Endicott, Sarah A   
How about students that are umm lip readers, COVID paint a big bad number on them?

0:20:51.110 --> 0:20:51.260   
El Shammas, Lama Rita   
Yeah.

0:20:50.550 --> 0:20:58.10   
Endicott, Sarah A   
Because all of our professors were wearing masks and students who use to be able to read lips.

0:20:58.930 --> 0:21:7.220   
Endicott, Sarah A   
Could no longer do so, and even if the professors were clear masks the clear masks somewhat distorted their facial features.

0:21:7.570 --> 0:21:9.820   
Endicott, Sarah A   
And they fogged up.

0:21:10.70 --> 0:21:13.710   
Endicott, Sarah A   
So that made it interesting.

0:21:13.820 --> 0:21:25.910   
Endicott, Sarah A   
Our students with dyslexia or other types of learning disabilities, oftentimes what they need most is just more time to look at the materials, especially on tests.

0:21:27.430 --> 0:21:38.20   
Endicott, Sarah A   
But they also have access to technology in the form of a semi screen reading software.

0:21:38.530 --> 0:22:0.100   
Endicott, Sarah A   
We actually have two kinds of software for our students who want to have their text read out loud to them once called Claro read, and the others called read and write gold, which is a piece of software that it looked you load in the background and utilize it to to read printed materials or text on on a screen.

0:22:1.260 --> 0:22:10.850   
Endicott, Sarah A   
Claro only reads PDF files, but read and write gold can read anything from PDF to.

0:22:26.720 --> 0:22:26.960   
El Shammas, Lama Rita   
No.

0:22:10.940 --> 0:22:29.90   
Endicott, Sarah A   
I think you can read word files, but it also can read stuff on the Internet, so it can't the where it's drawback is is if you got a teaser headline read and write gold can't read that for some reason because it it's it's like an embedded link.

0:22:29.960 --> 0:22:30.220   
El Shammas, Lama Rita   
OK.

0:22:31.80 --> 0:22:44.200   
Endicott, Sarah A   
But it can if you go to that page via the link, it'll read the material that's on the page, so there's some weird drawbacks to that kind of technology.

0:22:45.170 --> 0:23:5.90   
Endicott, Sarah A   
Uh, our students with dyslexia, like I say, typically just need more time, but they might use these the the magnification even or the the little ruler that they can follow along with the text read and write gold will allow you to highlight a student set of time.

0:23:17.660 --> 0:23:18.0   
El Shammas, Lama Rita   
Yeah.

0:23:6.90 --> 0:23:18.820   
Endicott, Sarah A   
So it makes it easier for certain for students to stay fixated on the proper part of the page, because if they don't, they might be jumping all over the place. So.

0:23:20.70 --> 0:23:21.840   
El Shammas, Lama Rita   
No. Yeah.

0:23:21.50 --> 0:23:35.60   
Endicott, Sarah A   
Some of the other technology that we've got, uh, we have a desk student who uses Bluetooth technology to connect a amplification device to his hearing aids.

0:23:37.320 --> 0:23:37.650   
El Shammas, Lama Rita   
OK.

0:23:37.80 --> 0:23:44.660   
Endicott, Sarah A   
So that's that's always an interesting and as of technology.

0:23:45.890 --> 0:23:48.990   
Endicott, Sarah A   
Ah, well, of course, our mobility.

0:23:49.0 --> 0:23:51.680   
Endicott, Sarah A   
You impaired students.

0:24:0.30 --> 0:24:0.280   
El Shammas, Lama Rita   
Umm.

0:23:52.170 --> 0:24:1.510   
Endicott, Sarah A   
Uh, we do a lot on campus with them, just in general, through our compliance with the Americans with Disabilities Act standards.

0:24:2.90 --> 0:24:21.650   
Endicott, Sarah A   
Umm, but sometimes they're accommodations might include priority registration, so they can schedule their classes are there apart, meaning that they have time to get to their next class instead of the allotted 15 minutes that that everybody else has.

0:24:21.660 --> 0:24:44.660   
Endicott, Sarah A   
If they've got classes close together, uh, so I mean, it really is dependent upon the student as to what kind of combinations and or technology they get because we try and customize the accommodations to where they're going to be more beneficial for the individual students.

0:24:46.20 --> 0:24:47.470   
Endicott, Sarah A   
And we've got a lot of overlap, but.

0:24:46.490 --> 0:24:50.450   
El Shammas, Lama Rita   
And yeah, I don't know.

0:24:50.460 --> 0:24:51.20   
El Shammas, Lama Rita   
Please continue.

0:24:52.770 --> 0:24:53.160   
Endicott, Sarah A   
Do you think?

0:24:53.170 --> 0:24:55.150   
Endicott, Sarah A   
What else we've been doing for our blind students?

0:24:55.160 --> 0:25:1.290   
Endicott, Sarah A   
Ohh, another thing for our blind students that we have access to through CIDI is the Braille lab.

0:25:3.0 --> 0:25:11.160   
Endicott, Sarah A   
So if our students are Braille readers, we can give material in Braille, or, in the case of one of our students, he's taking and analytics class.

0:25:11.910 --> 0:25:15.180   
Endicott, Sarah A   
I'm on. Ah.

0:25:18.480 --> 0:25:40.140   
Endicott, Sarah A   
On how to plot out a project, umm, using existing software, but it his project has to be first shown visually as a map A like a flow chart.

0:25:40.920 --> 0:25:41.670   
El Shammas, Lama Rita   
OK, OK.

0:25:41.880 --> 0:25:48.430   
Endicott, Sarah A   
So we actually got him his flow chart for the the summer in a tactile graphic.

0:25:49.610 --> 0:25:50.10   
El Shammas, Lama Rita   
OK.

0:25:51.840 --> 0:25:57.370   
Endicott, Sarah A   
The same student has technology that we've sent him, which he will be sending back when he graduates.

0:25:58.170 --> 0:26:9.760   
Endicott, Sarah A   
I called the graffiti and the graffiti is a device that it's about the size of a small or a large laptop.

0:26:9.770 --> 0:26:14.350   
Endicott, Sarah A   
I should say, and it has pens on it.

0:26:20.280 --> 0:26:20.530   
El Shammas, Lama Rita   
Yes.

0:26:15.350 --> 0:26:35.70   
Endicott, Sarah A   
That can be that run through AM a motor that can for each PIN can raise that pin up to any of five different heights, and so the pin field is 40 by 6040 by 60.

0:26:36.260 --> 0:26:40.100   
Endicott, Sarah A   
So that's what 200 and 2400 pins.

0:26:59.470 --> 0:26:59.630   
El Shammas, Lama Rita   
Yeah.

0:26:42.10 --> 0:27:0.0   
Endicott, Sarah A   
So the pins when you put a graphic image into the graffiti, it will replicate the image using the pins so that the student can can feel and get an idea tactically what that image looks like.

0:27:3.110 --> 0:27:3.630   
El Shammas, Lama Rita   
That's nice.

0:27:1.200 --> 0:27:8.910   
Endicott, Sarah A   
So we only we only have one of those was it was not cheap.

0:27:6.300 --> 0:27:11.790   
El Shammas, Lama Rita   
Yeah, I mean, it depends on the yeah, depends on the complexity of the image.

0:27:11.800 --> 0:27:14.630   
El Shammas, Lama Rita   
Also, you know to to make the layers and.

0:27:13.240 --> 0:27:15.890   
Endicott, Sarah A   
Yeah, I yeah.

0:27:34.980 --> 0:27:35.240   
El Shammas, Lama Rita   
Yeah.

0:27:16.0 --> 0:27:35.260   
Endicott, Sarah A   
So the the graffiti is good for a snapshot, it is not good for detail though, and in fact you can have a line that Mike have pin PIN and then no pins for five or six pin pin pin now.

0:27:36.360 --> 0:27:48.210   
Endicott, Sarah A   
But I mean by by manipulating the image and blowing it up or shrinking it down, I this student is able to get out of.

0:27:50.790 --> 0:27:51.110   
El Shammas, Lama Rita   
Feel.

0:27:52.20 --> 0:27:56.540   
Endicott, Sarah A   
This he can get sort of an idea of what that image looks like.

0:27:57.160 --> 0:27:57.430   
El Shammas, Lama Rita   
Hmm.

0:27:58.620 --> 0:27:58.940   
Endicott, Sarah A   
So.

0:27:59.770 --> 0:28:6.30   
El Shammas, Lama Rita   
And how do you evaluate the response of these students to these modifications?

0:28:6.40 --> 0:28:15.620   
El Shammas, Lama Rita   
Like how and based on these modifications do you go back and alter your methods and to better accommodate them?

0:28:16.360 --> 0:28:19.900   
Endicott, Sarah A   
Yes, to give you an example.

0:28:20.710 --> 0:28:21.150   
Endicott, Sarah A   
Umm.

0:28:21.520 --> 0:28:27.870   
Endicott, Sarah A   
Jaws understands math that's created in a program called math type and math.

0:28:27.880 --> 0:28:28.280   
Endicott, Sarah A   
Type.

0:28:28.290 --> 0:28:30.740   
Endicott, Sarah A   
It has to be the math type that's purchased.

0:28:31.660 --> 0:28:42.140   
Endicott, Sarah A   
Math type comes free, but it only makes A picture of math instead of actually, uh, an image that the screen reader can pick up.

0:28:42.900 --> 0:28:43.160   
El Shammas, Lama Rita   
OK.

0:28:44.120 --> 0:28:49.800   
Endicott, Sarah A   
So Jaws likes mathtype equations, invida doesn't.

0:28:51.270 --> 0:28:58.730   
Endicott, Sarah A   
So what we have to do with our NVDA users is go and actually create the math and math type, and then we have to.

0:29:0.90 --> 0:29:2.470   
Endicott, Sarah A   
Change it to a umm.

0:29:2.970 --> 0:29:7.530   
Endicott, Sarah A   
Math, called office math.

0:29:7.620 --> 0:29:8.20   
Endicott, Sarah A   
Hold on.

0:29:11.130 --> 0:29:12.110   
Endicott, Sarah A   
Remember what it's called.

0:29:19.230 --> 0:29:20.440   
Endicott, Sarah A   
It's called.

0:29:33.350 --> 0:29:46.170   
Endicott, Sarah A   
Yeah, I've called office map so it it can read occasionally some of the umm, the math type stuff.

0:29:46.180 --> 0:29:57.930   
Endicott, Sarah A   
But uh, NVDA prefers to use the other version, and we, like I said, we can create it in map type and then we can convert it right then and there to the one that NVDA understands.

0:29:57.940 --> 0:30:21.440   
Endicott, Sarah A   
I have no idea why it doesn't like the math type but but that way if we have materials that have got the math in the math type format and the the student needs it to be able to use with his NVDA, we can go in and just are make some modifications to a document.

0:30:22.300 --> 0:30:22.640   
El Shammas, Lama Rita   
OK.

0:30:23.420 --> 0:30:33.630   
Endicott, Sarah A   
Ohh, we've also found out that some people are better than others that describing pictures and graphs, and I'm flow charts.

0:30:43.300 --> 0:30:43.640   
El Shammas, Lama Rita   
OK.

0:30:35.850 --> 0:30:53.540   
Endicott, Sarah A   
We're lucky this semester to have a student who already took the class as one of our student workers, and he's been he understands what's going on when you're looking at a flow chart and how so he's been replicating it in actually a text format for one of our students.

0:30:54.490 --> 0:31:3.200   
El Shammas, Lama Rita   
So that's a very important point, while having like a recruiting your designers because you want them to be more.

0:31:3.850 --> 0:31:8.500   
El Shammas, Lama Rita   
Ohm knowledgeable about the material that will come to them.

0:31:11.720 --> 0:31:11.860   
El Shammas, Lama Rita   
Yeah.

0:31:9.460 --> 0:31:16.580   
Endicott, Sarah A   
Umm, it helps, it helps and we've got some people that are abysmal at descriptions as well.

0:31:17.210 --> 0:31:17.410   
El Shammas, Lama Rita   
Yeah.

0:31:17.330 --> 0:31:22.830   
Endicott, Sarah A   
Uh, we had a student worker one semester that we tried to to.

0:31:24.90 --> 0:31:30.440   
Endicott, Sarah A   
Uh segue to doing some of the descriptions and they scared her to death.

0:31:33.80 --> 0:31:44.830   
Endicott, Sarah A   
And she also found out we also found out that she did not follow a linear format where it acts like she'd say, uh, the background is yellow.

0:31:45.490 --> 0:31:53.430   
Endicott, Sarah A   
There's a graph on this background I'm it's got a line that goes diagonally up.

0:31:53.500 --> 0:31:59.890   
Endicott, Sarah A   
Ohh and the X axis is is labeled this and ohh and then it's got there's a bar graph here.

0:32:1.270 --> 0:32:1.730   
El Shammas, Lama Rita   
Ohh no.

0:31:59.940 --> 0:32:5.870   
Endicott, Sarah A   
Ohh and then the Y axis is so I mean it really got to be she.

0:32:5.880 --> 0:32:8.200   
Endicott, Sarah A   
She scared herself, basically.

0:32:7.900 --> 0:32:8.240   
El Shammas, Lama Rita   
Umm.

0:32:9.620 --> 0:32:31.920   
Endicott, Sarah A   
So that's one of those things that unless you have like a script or a some sort of umm format description as to what you should say first, second, third, 4th, it's real easy to get lost in the description so.

0:32:31.190 --> 0:32:32.300   
El Shammas, Lama Rita   
Yeah, of course.

0:32:34.440 --> 0:32:45.770   
El Shammas, Lama Rita   
So could you tell me what aspect of creating these materials is most challenging and with why are they challenging?

0:32:48.100 --> 0:32:57.850   
Endicott, Sarah A   
Well, like I said, I'll be one of the things that is can be very challenging is image descriptions and ohh there's an art to it.

0:32:58.850 --> 0:33:26.580   
Endicott, Sarah A   
And there's actually, if you wanted to get a better idea of what some of the, umm, technology or technological points are, ask for the webinar that Valerie Morrison put on, who's the etext director at CIDI?

0:33:37.10 --> 0:33:37.330   
El Shammas, Lama Rita   
OK.

0:33:27.180 --> 0:33:41.990   
Endicott, Sarah A   
She's actually put on some workshops on doing descriptions and they I recorded them and they're available in the CIDI collection to be able to go watch.

0:33:42.80 --> 0:34:5.120   
Endicott, Sarah A   
And that, by the way, might be something that you would want to pursue anyway, because there are more than captioning and etext stuff on there that might have some application to your your project though, but you could work with the support team on that to get access to those materials.

0:34:5.860 --> 0:34:6.240   
El Shammas, Lama Rita   
Of course.

0:34:6.290 --> 0:34:11.40   
Endicott, Sarah A   
So and CIDI also has an app Finder.

0:34:12.410 --> 0:34:12.830   
Endicott, Sarah A   
Umm.

0:34:13.170 --> 0:34:14.720   
Endicott, Sarah A   
Through the tools for Life website.

0:34:16.240 --> 0:34:19.750   
Endicott, Sarah A   
And tools for life is our state 8 T act project.

0:34:40.780 --> 0:34:41.40   
El Shammas, Lama Rita   
OK.

0:34:20.640 --> 0:34:44.240   
Endicott, Sarah A   
Our state Atct project has been in existence for about 35 years, and if you wanted to go and look at certain, let's say, assistive technology, there's an assistive technology lab over at CIDI that you can go and play around with some of the the technology and that might be helpful for you as well on your project.

0:34:45.270 --> 0:34:57.570   
Endicott, Sarah A   
And that is something that, uh, some folks have found to be very, very helpful is to have a, you know, some hands on experience with some of the technology that's available.

0:34:58.700 --> 0:35:2.270   
Endicott, Sarah A   
That's so the the descriptions can be challenging.

0:35:2.900 --> 0:35:16.450   
Endicott, Sarah A   
And then the math can be challenging as well, because if you don't write it the way it needs to be written, you're going to have a mess on your hands.

0:35:16.960 --> 0:35:17.270   
El Shammas, Lama Rita   
Just.

0:35:16.860 --> 0:35:25.280   
Endicott, Sarah A   
Ohh so you have to know where to put the parentheses and where to put the the decimal points.

0:35:26.10 --> 0:35:27.30   
Endicott, Sarah A   
That sort of thing.

0:35:27.740 --> 0:35:27.990   
El Shammas, Lama Rita   
Yeah.

0:35:29.890 --> 0:35:30.100   
Endicott, Sarah A   
Though.

0:35:29.850 --> 0:35:30.590   
El Shammas, Lama Rita   
Yeah, I will.

0:35:30.670 --> 0:35:37.180   
El Shammas, Lama Rita   
We we should get into more detail about the mathematics behind this, because I feel like this is a huge problem.

0:35:37.590 --> 0:35:38.890   
El Shammas, Lama Rita   
Mathematics and the images.

0:35:37.850 --> 0:35:56.90   
Endicott, Sarah A   
Well, yeah, it's well and it's been interesting with the advent of the increase in AI technology, Google actually tries to describe things in documents now and they do it through AI technology.

0:35:56.620 --> 0:35:57.0   
El Shammas, Lama Rita   
Yeah.

0:36:3.910 --> 0:36:4.300   
El Shammas, Lama Rita   
Who?

0:35:56.100 --> 0:36:8.700   
Endicott, Sarah A   
And it's very, very interesting and sometimes quite humorous as to what the AI technology says an image is.

0:36:12.310 --> 0:36:13.460   
El Shammas, Lama Rita   
How would describes it?

0:36:12.570 --> 0:36:24.980   
Endicott, Sarah A   
And umm and I, I don't know if you have been playing around with the AI technology or, uh, it's it's eerie.

0:36:38.450 --> 0:36:38.630   
El Shammas, Lama Rita   
Yeah.

0:36:27.80 --> 0:36:41.990   
Endicott, Sarah A   
That's so that what comes out of it can be very, very helpful, but it also can be all over the place, like my son was showing me the technology?

0:36:42.220 --> 0:36:55.920   
Endicott, Sarah A   
He asked for a UH-5 paragraphs on Abraham Lincoln and the Emancipation Proclamation, and the first two paragraphs were pretty good.

0:36:56.220 --> 0:37:1.530   
Endicott, Sarah A   
And then things started falling apart in paragraph 3, and it was nowhere near.

0:37:2.760 --> 0:37:5.190   
Endicott, Sarah A   
Coherent by paragraph 5.

0:37:5.660 --> 0:37:9.600   
Endicott, Sarah A   
So, but I think we're going to be seeing a lot more of that.

0:37:9.680 --> 0:37:13.380   
Endicott, Sarah A   
Unfortunately, we are also seeing it in our students.

0:37:13.700 --> 0:37:19.860   
Endicott, Sarah A   
Uh, last semester we caught one of our students taking one of her finals using AI technology.

0:37:21.310 --> 0:37:21.750   
El Shammas, Lama Rita   
Ohh.

0:37:24.620 --> 0:37:30.630   
Endicott, Sarah A   
Ohh, she got an office to the she got a visit to the Office of Student Integrity.

0:37:34.50 --> 0:37:35.840   
Endicott, Sarah A   
So yeah.

0:37:36.980 --> 0:37:42.500   
El Shammas, Lama Rita   
Yeah, that's challenging because they have access to to all, so.

0:37:46.620 --> 0:37:46.860   
El Shammas, Lama Rita   
Yeah.

0:37:44.130 --> 0:37:55.280   
Endicott, Sarah A   
Even if they're not supposed to be using it, so yeah, but the AI technologies, interestingly enough, is actually been.

0:37:57.230 --> 0:38:3.220   
Endicott, Sarah A   
Useful in some ways I one of our principal investigators.

0:38:24.380 --> 0:38:24.640   
El Shammas, Lama Rita   
And.

0:38:4.260 --> 0:38:32.620   
Endicott, Sarah A   
Umm actually was playing around with the AI technology on one of our CIDI projects and was finding that it was quite interesting to use it to try and simplify some of the 80 descriptions and was finding it actually did a pretty good job on on simplifying what the description was said.

0:38:33.810 --> 0:38:38.410   
Endicott, Sarah A   
So yeah, it may have its place going forward.

0:38:38.420 --> 0:38:38.840   
Endicott, Sarah A   
I don't know.

0:38:41.530 --> 0:38:41.750   
El Shammas, Lama Rita   
So.

0:38:49.420 --> 0:38:49.730   
El Shammas, Lama Rita   
Umm.

0:38:41.810 --> 0:38:58.210   
Endicott, Sarah A   
But the math is probably the the biggest challenge cause up until 15 years ago, we didn't have anything that could read math nothing, and I don't know if Latex was around back then, but I didn't know anything about like in about that back then.

0:39:0.10 --> 0:39:2.130   
Endicott, Sarah A   
So that's always been our biggest challenge.

0:39:3.10 --> 0:39:3.250   
El Shammas, Lama Rita   
Yeah.

0:39:5.130 --> 0:39:8.730   
El Shammas, Lama Rita   
Umm, So what?

0:39:8.840 --> 0:39:15.770   
El Shammas, Lama Rita   
What aspects do you think we should focus on the most when it comes to visually impaired students?

0:39:15.840 --> 0:39:23.360   
El Shammas, Lama Rita   
We have the images, we have the the mathematics, but what else should should be our main focus.

0:39:26.790 --> 0:39:34.930   
Endicott, Sarah A   
Ah, I liked what she said at the beginning, which was basically teaching the course content creators.

0:39:36.50 --> 0:39:36.320   
El Shammas, Lama Rita   
Here.

0:39:35.750 --> 0:39:43.800   
Endicott, Sarah A   
Umm, a better approach on what to do and we actually have access to a technology.

0:39:44.700 --> 0:39:47.700   
Endicott, Sarah A   
Ah, and it's used more for the.

0:39:48.450 --> 0:39:52.430   
Endicott, Sarah A   
Online classes, but it's called umm.

0:39:55.190 --> 0:39:58.400   
Endicott, Sarah A   
So I knew I was going to mention it to you, but of course.

0:39:58.470 --> 0:40:0.70   
Endicott, Sarah A   
Do I think what it's called now?

0:40:1.410 --> 0:40:17.880   
Endicott, Sarah A   
Ah, it's a scanning software that allows someone to check on the accessibility of course materials, and it's called and may have to email it to you because I'm absolutely drawing a blank right now.

0:40:20.460 --> 0:40:20.810   
Endicott, Sarah A   
Let me see.

0:40:20.200 --> 0:40:21.970   
El Shammas, Lama Rita   
It's OK, I can remind you later.

0:40:22.900 --> 0:40:23.730   
Endicott, Sarah A   
Yeah, it's.

0:40:23.730 --> 0:40:24.750   
El Shammas, Lama Rita   
I think stop.

0:40:24.810 --> 0:40:40.30   
Endicott, Sarah A   
That does as if if you have a document and you use this technology to go and look it over, it'll tell you what's accessible, what's not accessible, and it actually gives you some ideas of how to fix it.

0:40:42.150 --> 0:40:58.20   
Endicott, Sarah A   
The problem is is that not all professors are using that or not all course content creators are using that and one of the other problems that we run into is that there's some older and I'm gonna go back to the online programs.

0:40:58.450 --> 0:41:1.840   
Endicott, Sarah A   
There's a that they've been around for 20 years or so.

0:41:2.240 --> 0:41:18.830   
Endicott, Sarah A   
You could you could take an online class or do a whole program in computer science starting in about 2025 years ago, and some of the course content that was used back then was created by outside folks.

0:41:19.660 --> 0:41:24.200   
Endicott, Sarah A   
And doesn't technically belong to tech?

0:41:40.160 --> 0:41:40.460   
El Shammas, Lama Rita   
Ohh.

0:41:25.490 --> 0:41:46.10   
Endicott, Sarah A   
Umm, so the course developers don't don't have the background material on it to know how to fix it to make it more accessible, and they're not gonna take the time to redo all the PowerPoints.

0:41:46.20 --> 0:41:49.330   
Endicott, Sarah A   
For example, it in an accessible format.

0:41:49.700 --> 0:41:49.970   
El Shammas, Lama Rita   
Umm.

0:41:49.460 --> 0:42:3.880   
Endicott, Sarah A   
So uh, that's where we've been running into the most issues with the online content is that if it's too old, tech, doesn't own it and won't touch it like it's copyrighted by somebody else.

0:42:24.120 --> 0:42:24.680   
El Shammas, Lama Rita   
Umm.

0:42:30.390 --> 0:42:30.590   
El Shammas, Lama Rita   
Yeah.

0:42:6.390 --> 0:42:33.810   
Endicott, Sarah A   
And we have students that are taking courses, and it's and disability services can do a lot, but we can't do it all since we don't necessarily understand the content like my husband, kids, me, that I should be getting my own degree in analytics because I've been helping this one student every step of the way.

0:42:33.920 --> 0:42:37.880   
Endicott, Sarah A   
And he's like 1 semester from graduating with his analytics degree.

0:42:41.80 --> 0:42:41.460   
Endicott, Sarah A   
So.

0:42:40.960 --> 0:42:41.650   
El Shammas, Lama Rita   
That's beautiful.

0:42:43.710 --> 0:42:45.580   
Endicott, Sarah A   
But it's going through all this stuff.

0:42:48.620 --> 0:42:48.820   
El Shammas, Lama Rita   
Yeah.

0:42:45.590 --> 0:42:48.980   
Endicott, Sarah A   
It's like I don't understand what this this means.

0:42:52.120 --> 0:42:52.330   
El Shammas, Lama Rita   
Yeah.

0:42:49.390 --> 0:43:1.260   
Endicott, Sarah A   
I just copying it and recreating it or I'm cutting and pasting a PDF document into a Word document and then I can insert descriptions along the way.

0:43:1.270 --> 0:43:3.900   
Endicott, Sarah A   
So that's.

0:43:3.540 --> 0:43:16.310   
El Shammas, Lama Rita   
Yeah, the designer should be in the same major or have this some of their knowledge to the student that he's designing this content too, he.

0:43:20.70 --> 0:43:20.600   
El Shammas, Lama Rita   
Umm.

0:43:15.300 --> 0:43:24.790   
Endicott, Sarah A   
Well, we've definitely got some content designers or course designers that are right on top of things.

0:43:25.10 --> 0:43:25.290   
El Shammas, Lama Rita   
OK.

0:43:25.960 --> 0:43:40.350   
Endicott, Sarah A   
So if you had a chance to contact some of the folks that do the the course content, that might be another resource for you to pull in on your interviews.

0:43:41.370 --> 0:43:44.220   
El Shammas, Lama Rita   
Yeah, I I don't have the contacts contact.

0:43:44.230 --> 0:43:49.900   
El Shammas, Lama Rita   
So we want to have interviews with these people, but like I don't.

0:43:49.910 --> 0:43:51.280   
El Shammas, Lama Rita   
I don't know who to contact.

0:43:51.290 --> 0:43:56.890   
El Shammas, Lama Rita   
This is why I came to the Office of Disability because I thought they could provide me with content.

0:43:56.220 --> 0:43:57.290   
Endicott, Sarah A   
Well, I'll check.

0:43:57.340 --> 0:44:4.90   
Endicott, Sarah A   
I'll check with one or two of the better ones that we've worked with over there and see if they'd be willing to meet with you.

0:44:4.140 --> 0:44:10.660   
Endicott, Sarah A   
I think one of them wouldn't have a problem at all, but I just wanna give her a heads up before I share her name.

0:44:11.530 --> 0:44:12.580   
El Shammas, Lama Rita   
Thank you so much.

0:44:12.850 --> 0:44:13.190   
El Shammas, Lama Rita   
Thank you.

0:44:14.640 --> 0:44:22.440   
Endicott, Sarah A   
So but yeah, we got one that's right on top of things when it comes and she loves working with our blind students.

0:44:26.260 --> 0:44:26.720   
Endicott, Sarah A   
Umm.

0:44:26.340 --> 0:44:27.870   
El Shammas, Lama Rita   
Because she's doing something great.

0:44:27.880 --> 0:44:29.160   
El Shammas, Lama Rita   
So she's helping.

0:44:29.650 --> 0:44:30.380   
Endicott, Sarah A   
Yeah.

0:44:30.390 --> 0:44:31.50   
El Shammas, Lama Rita   
If it's a sheet.

0:44:30.790 --> 0:44:42.280   
Endicott, Sarah A   
Well, and if if people would just at the get go, just start planning their courses and umm, put the accessible material in right off the bat.

0:44:43.330 --> 0:44:48.930   
Endicott, Sarah A   
Umm to give give you an idea, there are a lot of the professors will put ah.

0:44:52.330 --> 0:45:4.360   
Endicott, Sarah A   
Frivolous images into their PowerPoint like the 11 computer course computer science course that was teaching students about cookies.

0:45:4.610 --> 0:45:8.540   
Endicott, Sarah A   
And there was a picture of a chocolate chip cookie on her the slide.

0:45:9.340 --> 0:45:14.90   
Endicott, Sarah A   
Well, I'm starry that is a frivolous picture.

0:45:14.310 --> 0:45:14.540   
El Shammas, Lama Rita   
Yeah.

0:45:14.980 --> 0:45:23.300   
Endicott, Sarah A   
It may, it may visually give somebody something to think about, but if you're blind, who cares?

0:45:24.40 --> 0:45:25.290   
El Shammas, Lama Rita   
Yeah, yeah.

0:45:29.620 --> 0:45:29.760   
El Shammas, Lama Rita   
Yes.

0:45:26.210 --> 0:45:30.840   
Endicott, Sarah A   
You know, give him the cookie in in person and then maybe they'd remember it.

0:45:32.820 --> 0:45:33.300   
El Shammas, Lama Rita   
For sure.

0:45:30.850 --> 0:45:44.890   
Endicott, Sarah A   
But but that is another place where our students have run into some had shaking.

0:45:46.940 --> 0:45:48.220   
Endicott, Sarah A   
Why did they include that?

0:45:50.600 --> 0:45:50.900   
Endicott, Sarah A   
So.

0:45:49.10 --> 0:45:52.200   
El Shammas, Lama Rita   
Yeah, of course.

0:45:54.280 --> 0:46:0.50   
El Shammas, Lama Rita   
I don't know if Jiaying or if you have any questions to ask from my end.

0:46:0.340 --> 0:46:1.370   
El Shammas, Lama Rita   
I'm.

0:46:1.480 --> 0:46:2.640   
El Shammas, Lama Rita   
I asked all the questions.

0:46:5.520 --> 0:46:6.260   
Li, Jiaying   
I think it's enough.

0:46:9.40 --> 0:46:12.150   
El Shammas, Lama Rita   
Sir, do you have anything you want to ask us?

0:46:12.160 --> 0:46:13.390   
El Shammas, Lama Rita   
No more about or.

0:46:14.790 --> 0:46:14.990   
Endicott, Sarah A   
Why?

0:46:17.320 --> 0:46:17.520   
El Shammas, Lama Rita   
Yeah.

0:46:15.0 --> 0:46:17.590   
Endicott, Sarah A   
I suspect we're going to be talking more going forward.

0:46:18.150 --> 0:46:18.680   
Endicott, Sarah A   
Yeah.

0:46:42.730 --> 0:46:43.40   
El Shammas, Lama Rita   
Enter.

0:46:18.690 --> 0:46:48.280   
Endicott, Sarah A   
So if you if you're able to come up with some sort of step by step process for these professors to and I to follow when they're trying to create accessible course content and they should be doing that before they ever put uh, their fingers on a keyboard, they should have their the thought of accessibility in mind.

0:46:49.540 --> 0:46:53.560   
Endicott, Sarah A   
So it's one of those things that, ah.

0:46:55.960 --> 0:46:58.80   
Endicott, Sarah A   
Did some of them just never think about it?

0:46:58.790 --> 0:46:59.220   
El Shammas, Lama Rita   
Yeah.

0:46:59.270 --> 0:47:13.470   
El Shammas, Lama Rita   
So you want the professors to initiate and to have this initiative before leading to having to recruit designers to convert these material OK.

0:47:12.200 --> 0:47:14.810   
Endicott, Sarah A   
Yeah, they should.

0:47:14.880 --> 0:47:19.990   
Endicott, Sarah A   
It's much easier to build the accessibility in as you're going along.

0:47:20.80 --> 0:47:26.520   
Endicott, Sarah A   
Than it is to go back and retrofit AA the class content.

0:47:27.270 --> 0:47:29.460   
El Shammas, Lama Rita   
Of course, of course.

0:47:30.770 --> 0:47:31.120   
El Shammas, Lama Rita   
OK.

0:47:31.130 --> 0:47:31.520   
El Shammas, Lama Rita   
Perfect.

0:47:31.530 --> 0:47:33.610   
El Shammas, Lama Rita   
We'll look into it, of course.

0:47:34.590 --> 0:47:40.600   
El Shammas, Lama Rita   
Thank you so much, Sarah, for giving us your time and for helping us help you try to help you.

0:47:40.610 --> 0:47:45.300   
El Shammas, Lama Rita   
I hope we'll we'll be able to come up with the the computational model.

0:47:45.310 --> 0:47:54.150   
El Shammas, Lama Rita   
That would be an added value to you and your designers and the CIDI and all professors, and most importantly, the visually impaired students.

0:47:55.510 --> 0:47:56.210   
El Shammas, Lama Rita   
We really hope.

0:47:55.760 --> 0:48:0.600   
Endicott, Sarah A   
It if you haven't already met with the CIDI folks, I would go and meet with them.

0:48:1.280 --> 0:48:8.820   
Endicott, Sarah A   
Umm the Etext people and I would definitely have you pay a visit to the the rail department.

0:48:11.0 --> 0:48:11.490   
Endicott, Sarah A   
Rail.

0:48:10.140 --> 0:48:11.650   
El Shammas, Lama Rita   
The broad department.

0:48:11.580 --> 0:48:11.990   
Endicott, Sarah A   
Mm-hmm.

0:48:11.800 --> 0:48:12.570   
El Shammas, Lama Rita   
The lab?

0:48:12.640 --> 0:48:12.840   
El Shammas, Lama Rita   
Yeah.

0:48:12.890 --> 0:48:13.90   
Endicott, Sarah A   
Mm-hmm.

0:48:13.780 --> 0:48:14.250   
El Shammas, Lama Rita   
OK.

0:48:14.680 --> 0:48:15.420   
El Shammas, Lama Rita   
We'll definitely do.

0:48:14.410 --> 0:48:19.790   
Endicott, Sarah A   
Now there's a there's a Braille team, and then there's an assistive technology lab.

0:48:20.520 --> 0:48:21.100   
El Shammas, Lama Rita   
Ohh OK.

0:48:21.450 --> 0:48:25.90   
Endicott, Sarah A   
So if at over have you been to the CIDI building?

0:48:26.260 --> 0:48:30.260   
El Shammas, Lama Rita   
No, I I contacted them by email, but I haven't been to their building yet.

0:48:31.40 --> 0:48:41.270   
Endicott, Sarah A   
So my suggestion is, is that well, and if you want, since I'm halftime there, if you guys wanna plan a field trip over there, unfortunately, I'm not on campus every day.

0:48:41.840 --> 0:48:42.150   
El Shammas, Lama Rita   
Umm.

0:48:41.280 --> 0:48:45.470   
Endicott, Sarah A   
But you know, we could probably work something out where you could come over and get a tour.

0:48:46.280 --> 0:48:47.870   
El Shammas, Lama Rita   
Of course, we'd love to.

0:48:47.990 --> 0:48:53.540   
El Shammas, Lama Rita   
Thank you so much if you could tell me if you're availability, we can work around it.

0:48:54.220 --> 0:48:55.930   
Endicott, Sarah A   
Well, Leko told you in my email.

0:48:55.940 --> 0:48:58.510   
Endicott, Sarah A   
I'm on campus for sure on Mondays and Wednesdays.

0:48:57.340 --> 0:48:59.330   
El Shammas, Lama Rita   
Monday, Tuesday. OK.

0:49:1.840 --> 0:49:2.170   
El Shammas, Lama Rita   
Me.

0:49:2.180 --> 0:49:3.330   
El Shammas, Lama Rita   
I I I'm.

0:48:59.320 --> 0:49:4.220   
Endicott, Sarah A   
Window who's who goes to Emory on Mondays and Wednesday.

0:49:3.340 --> 0:49:10.930   
El Shammas, Lama Rita   
I'm an Emory Monday, Wednesdays and Fridays, but the rest of the team can definitely ohm and go and meet you.

0:49:11.720 --> 0:49:12.130   
Endicott, Sarah A   
OK.

0:49:12.360 --> 0:49:19.510   
Endicott, Sarah A   
Yeah, if the team can come up with some times when they are mutually able to spend about an hour.

0:49:20.470 --> 0:49:20.710   
El Shammas, Lama Rita   
OK.

0:49:20.610 --> 0:49:21.100   
Endicott, Sarah A   
Umm.

0:49:25.380 --> 0:49:26.300   
El Shammas, Lama Rita   
OK, perfect.

0:49:21.570 --> 0:49:33.660   
Endicott, Sarah A   
Then you could come and get a tour on on Monday or Wednesday and they're like, for example, next.

0:49:33.810 --> 0:49:34.260   
Endicott, Sarah A   
Hold on.

0:49:34.270 --> 0:49:38.690   
Endicott, Sarah A   
Let me tell you, I think it's to lie tune.

0:49:47.500 --> 0:49:48.80   
Endicott, Sarah A   
On.

0:49:53.580 --> 0:49:57.530   
Endicott, Sarah A   
Thursday, July 22nd June 22nd.

0:49:57.540 --> 0:49:57.940   
Endicott, Sarah A   
Excuse me.

0:49:58.380 --> 0:49:58.580   
El Shammas, Lama Rita   
Yeah.

0:49:59.600 --> 0:50:1.770   
Endicott, Sarah A   
Ah, Abby on campus.

0:50:7.400 --> 0:50:7.940   
El Shammas, Lama Rita   
That's fine.

0:50:1.780 --> 0:50:11.400   
Endicott, Sarah A   
That day, we have an Advisory Board meeting and that's the morning.

0:50:20.820 --> 0:50:21.160   
El Shammas, Lama Rita   
OK.

0:50:13.290 --> 0:50:23.440   
Endicott, Sarah A   
So anytime after 2:00 PM, if if anybody wants to come for a tour at CIDI, I'll be down here down there.

0:50:23.370 --> 0:50:27.190   
El Shammas, Lama Rita   
So we could do a Thursday.

0:50:27.650 --> 0:50:32.880   
El Shammas, Lama Rita   
July 22, June 22 at 2:30 PM is that good with you?

0:50:33.410 --> 0:50:33.760   
Endicott, Sarah A   
Uh-huh.

0:50:34.240 --> 0:50:35.780   
El Shammas, Lama Rita   
OK, I'll put it in my calendar.

0:50:41.390 --> 0:50:42.20   
El Shammas, Lama Rita   
Perfect.

0:50:42.70 --> 0:50:48.560   
El Shammas, Lama Rita   
And maybe the team can pass by uh the lab and the build team before that.

0:50:48.570 --> 0:51:0.280   
El Shammas, Lama Rita   
If we wanna get to more interviewers and we would really appreciate if you could talk to the designers if they'd let us interview them because we need designers because we're doing this for them.

0:51:0.290 --> 0:51:7.290   
El Shammas, Lama Rita   
We're doing this to help them in their process and so as much data we can get from them is perfect.

0:51:8.210 --> 0:51:8.670   
Endicott, Sarah A   
OK.

0:51:8.810 --> 0:51:12.60   
Endicott, Sarah A   
And I'll figure out what the name of that software is that tech purchased.

0:51:13.450 --> 0:51:14.710   
Endicott, Sarah A   
I'll email that to you.

0:51:13.200 --> 0:51:15.70   
El Shammas, Lama Rita   
I was trying to research it.

0:51:15.420 --> 0:51:17.60   
El Shammas, Lama Rita   
Yeah, I couldn't find anything.

0:51:20.450 --> 0:51:21.120   
Endicott, Sarah A   
See if it's.

0:51:21.130 --> 0:51:22.940   
Endicott, Sarah A   
I still have access to the course.

0:51:23.10 --> 0:51:23.900   
Endicott, Sarah A   
OK, I got it.

0:51:23.910 --> 0:51:25.160   
Endicott, Sarah A   
It's called Blackboard ally.

0:51:26.30 --> 0:51:26.470   
El Shammas, Lama Rita   
OK.

0:51:29.150 --> 0:51:29.630   
Endicott, Sarah A   
So.

0:51:32.240 --> 0:51:41.190   
Endicott, Sarah A   
Yeah, it's like I said, you can run stuff through it and it'll pick up on what's accessible and what's not and give you ideas on how to fix it when it's not.

0:51:43.890 --> 0:51:44.110   
Endicott, Sarah A   
So.

0:51:46.580 --> 0:51:47.800   
El Shammas, Lama Rita   
That's an impressive software.

0:51:49.260 --> 0:51:50.500   
El Shammas, Lama Rita   
You're very helpful.

0:51:53.550 --> 0:51:54.120   
El Shammas, Lama Rita   
OK.

0:51:54.130 --> 0:51:55.590   
El Shammas, Lama Rita   
Thank you very much and Sarah.

0:51:57.120 --> 0:51:59.260   
Endicott, Sarah A   
Sure. So.

0:51:58.980 --> 0:52:0.620   
El Shammas, Lama Rita   
This has been great help.

0:52:3.80 --> 0:52:10.960   
Endicott, Sarah A   
All right, then you got the Blackboard, ally, and I'll I'll check with the course designers to see if they'd be willing to talk with you.

0:52:11.820 --> 0:52:13.920   
El Shammas, Lama Rita   
Thank you very much looking.

0:52:13.0 --> 0:52:15.190   
Endicott, Sarah A   
Well, they're, they're actually taking what?

0:52:17.110 --> 0:52:17.270   
El Shammas, Lama Rita   
Yeah.

0:52:15.200 --> 0:52:19.780   
Endicott, Sarah A   
The professors are giving them and making it accessible.

0:52:20.480 --> 0:52:24.650   
El Shammas, Lama Rita   
There also if you have some professors in mind that.

0:52:25.970 --> 0:52:36.470   
El Shammas, Lama Rita   
Work closely with the Office of Disability that want to make their material accessible to visually impaired students.

0:52:36.560 --> 0:52:37.710   
El Shammas, Lama Rita   
We'd love to talk to them.

0:52:37.720 --> 0:52:43.660   
El Shammas, Lama Rita   
And so to see how we can influence other professors to do the same, yeah.

0:52:47.680 --> 0:52:47.960   
El Shammas, Lama Rita   
OK.

0:52:42.280 --> 0:52:50.630   
Endicott, Sarah A   
K I'll give it some thought and run it past some of our other coordinators as well, so that they cause.

0:52:50.720 --> 0:52:58.650   
Endicott, Sarah A   
Actually, since I'm only half time over at disability services, there's people in the office that probably have more contact with the professors.

0:53:5.710 --> 0:53:5.950   
El Shammas, Lama Rita   
Yeah.

0:52:59.20 --> 0:53:6.190   
Endicott, Sarah A   
Most of the professors I know are in the online programs because that's where all of our blind students are doing except one.

0:53:9.950 --> 0:53:11.590   
Endicott, Sarah A   
So. Umm.

0:53:11.630 --> 0:53:12.500   
El Shammas, Lama Rita   
That's interesting.

0:53:12.510 --> 0:53:16.890   
El Shammas, Lama Rita   
Actually they're they're mostly enrolled in the online program, yeah.

0:53:17.680 --> 0:53:21.900   
Endicott, Sarah A   
We have one that's in uh in HCI, though on campus, so.

0:53:22.430 --> 0:53:22.840   
El Shammas, Lama Rita   
Umm.

0:53:38.940 --> 0:53:39.60   
El Shammas, Lama Rita   
Yeah.

0:53:24.300 --> 0:53:40.460   
Endicott, Sarah A   
I can ask him if he would be willing to talk with you as well, since he's got he's immersed into the not only from the student side of things, but from the blind side of things. So.

0:53:43.510 --> 0:53:46.220   
El Shammas, Lama Rita   
That that, that would be great help.

0:53:48.850 --> 0:53:49.290   
Endicott, Sarah A   
All right.

0:53:46.290 --> 0:53:50.240   
El Shammas, Lama Rita   
Honestly, thank you so much, Sarah again for giving us your time.

0:53:51.460 --> 0:53:52.90   
Endicott, Sarah A   
All right, then.

0:53:53.610 --> 0:53:54.540   
El Shammas, Lama Rita   
Have a good weekend.

0:53:53.440 --> 0:53:54.730   
Endicott, Sarah A   
Well, everybody, take care.

0:53:54.740 --> 0:53:56.250   
Endicott, Sarah A   
Have a good weekend.

0:53:56.350 --> 0:53:56.710   
El Shammas, Lama Rita   
You too?

0:53:56.260 --> 0:54:0.980   
Endicott, Sarah A   
Yeah, I think we're supposed to have some sun this weekend.

0:53:59.30 --> 0:54:3.270   
El Shammas, Lama Rita   
No, I'm yeah, I hope so.

0:54:3.510 --> 0:54:4.800   
El Shammas, Lama Rita   
It's been it's been good.

0:54:4.850 --> 0:54:7.210   
El Shammas, Lama Rita   
It's been a good week weather wise.

0:54:7.20 --> 0:54:9.550   
Endicott, Sarah A   
So all right, then.

0:54:11.30 --> 0:54:11.670   
El Shammas, Lama Rita   
We'll see you soon.

0:54:10.980 --> 0:54:12.230   
Endicott, Sarah A   
You guys have fun.

0:54:12.470 --> 0:54:12.830   
Srinivasan, Siddharth   
Thank you.

0:54:12.240 --> 0:54:13.250   
Endicott, Sarah A   
Take care.

0:54:13.290 --> 0:54:13.630   
Endicott, Sarah A   
Bye bye.

0:54:14.180 --> 0:54:15.160   
El Shammas, Lama Rita   
Bye bye bye.