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00:00:00,090 --> 00:00:06,540

[Christine:] Welcome to "Beyond the Textbook: Multiple Means of Representation as a Path to Removing Barriers."

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00:00:07,230 --> 00:00:13,469

My name is Christine Scherer, pronouns are she/her, and I am the Senior Instructional and Learning Accessibility

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00:00:13,470 --> 00:00:18,780

Specialist, in the Office of Distance Learning, in the School of Professional Studies at Northwestern University.

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00:00:20,100 --> 00:00:30,450

My main focus in my role, is to support my colleagues who are developing online courses, and ensuring that those courses are aligning

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00:00:30,450 --> 00:00:39,030

to best practices for digital accessibility and Universal Design. And I will pass it over to my colleague to introduce herself.

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00:00:39,510 --> 00:00:45,810

[Lauren:] Hi everyone. My name is Lauren McKeen McDonald. I am the Open Education Librarian at Northwestern University Libraries.

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00:00:46,560 --> 00:00:55,350

My primary responsibility is to work with faculty and instructors to find and create suitable OER, or open educational resources, for their courses.

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00:00:56,010 --> 00:00:59,909

I also have a special interest in open pedagogy and can assist instructors to

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00:00:59,910 --> 00:01:04,730

develop lesson plans and curriculum that utilize the power of open licenses.

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00:01:05,130 --> 00:01:09,750

In addition to open education, I also support an academic department.

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00:01:09,750 --> 00:01:14,820

So I support the research and teaching needs of the Communication Studies department as their library liaison.

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00:01:19,030 --> 00:01:23,020

[Christine:] So, to start off, what do we mean by multiple means of representation?

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00:01:24,080 --> 00:01:29,720

This UDL pillar is really about how the instructor is presenting information to students.

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00:01:30,140 --> 00:01:36,470

It asks that, instead of presenting a piece of information in a single format, like a text book or a video,

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00:01:36,830 --> 00:01:43,370

you present it to students in multiple ways: through text, audio, video, images, interactions, and more.

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00:01:43,970 --> 00:01:52,730

So, why do this? But, to quote CAST, which is one of the leading organizations on UDL research and professional development,

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00:01:53,210 --> 00:01:57,620

there's not one means of representation that will be optimal for all learners.

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00:01:58,190 --> 00:02:01,610

For example, not everyone is going to learn best from a video.

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00:02:02,060 --> 00:02:09,830

A student may be deaf or hard of hearing, and have trouble following along, especially if the video doesn't have good captions.

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00:02:10,310 --> 00:02:17,390

They may not have time to watch a lengthy video, or they may have an attention disorder that makes it hard for them to focus.

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00:02:17,900 --> 00:02:22,250

Or they may simply prefer to read rather than listen and watch.

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00:02:24,340 --> 00:02:33,270

By providing a video that has descriptive audio, captions, and a text transcript, you've given students three options.

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00:02:33,280 --> 00:02:40,540

They can watch the video, with or without captions. They can listen to the audio only, or they can just read the transcript.

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00:02:40,960 --> 00:02:44,770

They'll get the same information, but in the format that works best for them.

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00:02:48,000 --> 00:02:58,110

So why is this important, especially now? The pandemic and other crises—police violence, the rise of white supremacy,

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00:02:58,110 --> 00:03:06,660

gun violence, economic stress, international crises—have put incredible stress on all of us, students included.

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00:03:07,640 --> 00:03:12,500

Over the last few years, students, disability resource centers,

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00:03:12,500 --> 00:03:20,000

counseling centers, and instructors have all reported an increase in these challenges: of brain fog,

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00:03:20,690 --> 00:03:26,600

problems of memory and concentration, burnout, higher rates of anxiety and depression,

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00:03:27,080 --> 00:03:33,500

increased out-of-school-responsibilities, and for some students, symptoms of long COVID.

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00:03:34,510 --> 00:03:42,040

All of these can make any one resource challenging, but particularly lengthy or traditional resources,

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00:03:42,040 --> 00:03:49,270

like textbook chapters or long lecture videos, can become very difficult for students to fully engage with.

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00:03:52,640 --> 00:03:57,470

And of course, instructors have not been immune to that

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00:03:57,770 --> 00:04:03,890

stress and pressure. Including multiple means of representation can seem like extra work,

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00:04:04,850 --> 00:04:09,500

but there are many benefits to expanding the resources that you use in your course.

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00:04:10,670 --> 00:04:15,350

First, you'll likely see a reduction in the number of students who didn't do the

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00:04:15,350 --> 00:04:19,640

reading and didn't partici—and then don't participate in class discussions.

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00:04:20,240 --> 00:04:26,390

If you have more options for resources, then students will be more likely to find a format that they can engage with.

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00:04:27,480 --> 00:04:31,500

And thus, they'll be able to fully participate in the class.

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00:04:32,220 --> 00:04:36,510

Second, you can start to build up a library of resources to use in the future,

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00:04:36,780 --> 00:04:43,349

either by crowdsourcing resources from students, or developing your own resources that you can reuse,

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00:04:43,350 --> 00:04:49,440

such as short videos or graphics, that you can continue to use across multiple courses.

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00:04:51,680 --> 00:04:57,230

So take a little bit of time now to reflect on your own course and the resources you use in it.

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00:04:57,710 --> 00:05:04,840

What barriers might exist within those resources, that are preventing your students from fully engaging with them?

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00:05:12,530 --> 00:05:17,720

And now Lauren is going to start talking about some of the practical implementation of all of this.

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00:05:18,860 --> 00:05:26,420

[Lauren:] Thank you very much. So now it's time to dive into some practical applications of multiple means of representation within your classes.

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00:05:27,080 --> 00:05:32,030

There are many strategies for updating your courses, and some take more time than others.

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00:05:32,450 --> 00:05:35,479

So in thinking about the best way to share these strategies,

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00:05:35,480 --> 00:05:41,690

we decided to organize them as things that you could do before, during, and after your class.

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00:05:42,200 --> 00:05:49,640

Some of the tips will fit roughly into these categories, or could be done at any time during your course creation and instruction.

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00:05:49,910 --> 00:05:55,130

So we encourage you to implement the strategies we'll share at whatever point makes most sense to you.

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00:05:56,510 --> 00:06:05,180

As you may have learned through looking through the practicum content so far, we're taking a +1 approach to UDL.

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00:06:05,540 --> 00:06:10,820

So when you think about your course materials and various representations or ways of presenting information,

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00:06:11,060 --> 00:06:15,320

pay attention to those areas in which you're presenting information in a single stream.

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00:06:15,830 --> 00:06:19,880

In other words, when are you providing or presenting content in just one way?

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00:06:20,210 --> 00:06:23,270

We'll use that as our starting point to begin making updates.

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00:06:27,040 --> 00:06:32,439

Okay. So to get started, review your course interactions and materials for any single stream elements that

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00:06:32,440 --> 00:06:36,370

you're currently using. When it comes to course materials and representation,

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00:06:36,380 --> 00:06:42,310

some examples include: lecture notes that are text only, slide decks without accompanying

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00:06:42,310 --> 00:06:48,010

notes or AV components, or instructor-created video clips without transcripts.

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00:06:48,850 --> 00:06:51,550

Once you've done a mental scan on all of the single stream elements,

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00:06:51,880 --> 00:06:56,770

next consider how those interact with the student barriers or pinch points that you've witnessed.

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00:06:57,730 --> 00:06:58,510

Updating your course

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00:06:58,600 --> 00:07:05,800

mat—materials can take a lot of time, so try to focus first on the ones that you know will make the biggest difference in your students' experience.

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00:07:06,700 --> 00:07:11,319

Updating your class to align with UDL principles is an iterative process.

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00:07:11,320 --> 00:07:15,820

And so, if you start small, that's great. Start with what's manageable for you.

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00:07:16,090 --> 00:07:20,890

The goal is to expand into just one new medium, modality, or expression.

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00:07:24,700 --> 00:07:30,160

All right. So let's go through a quick example. Let's consider a math professor.

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00:07:30,190 --> 00:07:33,250

She uses primarily text-based materials.

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00:07:33,520 --> 00:07:40,090

So she has a textbook, lecture slides, and then some notes to accompany problem sets.

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00:07:40,850 --> 00:07:45,580

The students have access to a physical, non-e-book version of the text,

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00:07:45,940 --> 00:07:50,920

and then the rest of the materials are posted within the learning management system for students.

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00:07:51,460 --> 00:07:56,770

So she's identified three sections of the course in which the students consistently struggle,

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00:07:57,400 --> 00:08:02,020

and she's trying to think of ways where she could expand into a new modality or medium.

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00:08:02,530 --> 00:08:07,839

So the question is, what are some possibilities for additional streams of content in this situation,

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00:08:07,840 --> 00:08:12,340

knowing what we know? In the past, talking to other faculty and instructors,

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00:08:12,340 --> 00:08:21,280

some ideas that have come up include: recording short concept videos, particularly on those concepts that the students are struggling with;

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00:08:22,090 --> 00:08:30,159

incorporating interactive exercises, maybe within the LMS; possibly using padlet or mentee,

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00:08:30,160 --> 00:08:39,310

or another engagement tool that students can access in order to ask questions and get some interactions going between the students.

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00:08:40,700 --> 00:08:50,400

And then, let's look at a real life example. So, this is a screenshot of a video created by Professor Gilbert Strang, at MIT.

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00:08:51,330 --> 00:08:57,930

Professor Strang has an assigned textbook, and has created short lecture videos to accompany sections in the text.

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00:08:58,470 --> 00:09:04,860

His videos are chunked between 10 and 20 minutes, and are posted on the MIT OpenCourseware site.

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00:09:05,520 --> 00:09:12,210

For anyone who's watching this and listening to this, if you haven't checked out the MIT OpenCourseware site, I really encourage you to do that.

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00:09:12,240 --> 00:09:18,570

MIT has been a leader in the open education field since the beginning, and so they have a lot of great free,

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00:09:18,720 --> 00:09:22,860

open resources that you can begin using and adapting in your classes.

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00:09:23,610 --> 00:09:29,639

In this case, each video has closed captioning, as well as an option to download the video

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00:09:29,640 --> 00:09:33,660

or transcripts, so, it can be watched and read without an internet connection.

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00:09:35,100 --> 00:09:39,420

Some benefits of this approach are that the videos and other resources were developed over time.

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00:09:40,050 --> 00:09:43,560

So, this isn't something that, if you're feeling inspired by this,

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00:09:43,560 --> 00:09:48,150

that you have to go out and record all of the videos to go along with each section of your textbook.

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00:09:48,420 --> 00:09:52,650

This is something that you could do a week at a time, a month at a time, a quarter at a time.

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00:09:53,310 --> 00:10:00,960

So, once you create those videos, they are going to be a resource there for you for many quarters and semesters to come.

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00:10:02,580 --> 00:10:09,629

Another benefit is that the transcript is keyword searchable so that students can jump to a specific point in the lecture to do targeted studying,

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00:10:09,630 --> 00:10:14,330

which is shown to be very helpful for many students. (Slide.)

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00:10:15,700 --> 00:10:20,350

So if you'd like to eventually add new streams of content for every section of your course,

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00:10:20,860 --> 00:10:24,490

you could start by creating a chart to organize those changes.

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00:10:24,880 --> 00:10:32,980

This is an example that has been adapted from the book Reach Everyone, Teach Everyone: Universal Design for Learning in Higher Education.

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00:10:33,700 --> 00:10:40,870

And so what they've recommended in that book is to create some sort of visualization, and, you could list out the section of your course,

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00:10:40,870 --> 00:10:48,099

each section, a particular element within that section, the format of the content as it currently exists,

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00:10:48,100 --> 00:10:51,850

and then some possible UDL alternatives for that content.

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00:10:52,710 --> 00:10:57,700

And you don't have to land on each of those possible forms of UDL content.

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00:10:57,700 --> 00:11:03,970

This is something that you can just gather up resources, include them there, and then decide once, once you have a list of them.

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00:11:06,430 --> 00:11:09,880

Now I'm going to pass it back to Christine, and she will talk about different modalities.

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00:11:10,960 --> 00:11:19,630

[Christine:] So, as we've been discussing, the central feature of multiple means of representation is presenting information in different modalities.

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00:11:19,990 --> 00:11:27,160

And there are numerous options, especially when you have an online course site that you can utilize: text, video,

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00:11:27,160 --> 00:11:34,780

audio, graphics, interactions, and websites can all be used during class and assigned as out-of-class resources.

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00:11:36,440 --> 00:11:44,920

This can be kind of overwhelming, but, you don't have to use every single modality for every single resource.

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00:11:44,930 --> 00:11:50,300

You can be selective based on what makes the most sense for your material and for your class.

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00:11:51,020 --> 00:11:54,260

As an example, when Lauren and I were creating this presentation,

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00:11:54,560 --> 00:12:00,590

we chose to include text and images, as well as audio and video in the form of the two of us speaking.

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00:12:01,310 --> 00:12:10,040

However, we chose not to include any prerecorded audio or video, such as a YouTube video embedded in our slide deck,

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00:12:10,400 --> 00:12:19,729

because, from experience we know that playing a video like that into a recording and then having it played back—it's not a great experience.

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00:12:19,730 --> 00:12:28,130

It doesn't, play very well, even though there's a lot of really good videos or podcasts on UDL.

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00:12:28,400 --> 00:12:36,290

We made the decision that it wouldn't be right for this format. So, you don't have to use every single resource that's available to you.

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00:12:36,320 --> 00:12:40,370

Think about what is the best fit for the class that you're creating.

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00:12:43,530 --> 00:12:48,330

So, like I said, this can kind of start to sound overwhelming.

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00:12:48,900 --> 00:12:52,020

Finding a textbook for a course can be a challenge.

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00:12:52,380 --> 00:13:00,660

Now we've added in the possibility of every other type of media, and this can make the process seem almost impossible.

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00:13:01,110 --> 00:13:07,200

So to make it feel a little less daunting, here are a few places that you can start looking for resources.

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00:13:07,830 --> 00:13:12,300

The handout that's attached to this presentation will have links to a lot of these available.

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00:13:13,300 --> 00:13:16,020

So the first one that I want to talk about is Crash Course.

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00:13:16,030 --> 00:13:24,310

This is a long-running YouTube channel, with numerous video series on a huge variety of educational topics: history,

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00:13:24,550 --> 00:13:28,300

math, chemistry, philosophy, linguistics, and so much more.

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00:13:28,780 --> 00:13:35,320

They range from service-level introductory videos to very deep dives into very specific topics.

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00:13:36,010 --> 00:13:41,470

They tend to be pretty short, about 10 to 20 minutes each, and be easily embedded into your course site.

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00:13:43,130 --> 00:13:46,520

There's also TED, TEDx and TED Ed talks.

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00:13:47,240 --> 00:13:52,820

These are talks that are put on by experts in a wide variety of fields.

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00:13:53,420 --> 00:13:59,120

Very commonly, you'll see business, psychology, philosophy, popular culture.

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00:13:59,720 --> 00:14:07,160

But there are talks on just about anything you could imagine. These can also be a really great resource for students.

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00:14:07,550 --> 00:14:13,970

One thing to be aware of is that TED talks put on by this specific organization are highly accessible.

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00:14:14,000 --> 00:14:19,790

They will have both captions and transcripts, usually also in a wide number of languages.

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00:14:20,600 --> 00:14:29,420

TED Ed and TEDx are affiliate groups. They're put on by other organizations that have an affiliation with the TED organization.

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00:14:30,440 --> 00:14:35,330

But they don't always have the same level of accessibility built in.

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00:14:35,690 --> 00:14:41,300

So if you're using one of these talks, be sure to check and see what kind of captions of transcripts are available.

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00:14:42,520 --> 00:14:50,230

There's also OER libraries. Open educational resources are openly licensed, free teaching materials

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00:14:50,290 --> 00:14:55,480

that are intended to be widely distributed and modified to fit the particular needs of instructors.

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00:14:56,230 --> 00:15:05,230

These are often available through university libraries, as well as some OER-specific digital libraries like MIT Courseware.

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00:15:05,980 --> 00:15:09,040

We've linked to a few other options on our handout as well.

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00:15:10,120 --> 00:15:13,420

Another good place to look for resources are industry blogs.

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00:15:13,750 --> 00:15:24,880

Look around at blogs related to some fields that your specific area of study that your course can lead into, and see what people are talking about.

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00:15:25,210 --> 00:15:29,470

This is a great way to share information with students about current events,

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00:15:29,740 --> 00:15:38,770

the job market. And a lot of these blogs will have, you know, not only text, but graphics and sometimes video or audio as well.

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00:15:40,230 --> 00:15:44,880

And finally, another good resource to check out is NPR Podcasts.

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00:15:46,090 --> 00:16:01,210

NPR has a huge library of podcasts that are very well edited and produced on a wide variety of subjects: business, science, culture, and current events.

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00:16:02,110 --> 00:16:09,370

So if you're looking for some audio to include in your course, that can also be a good resource to check out.

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00:16:11,700 --> 00:16:19,410

Finally, when you're looking through your sources, the format and modality isn't the only thing that, that you need to consider.

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00:16:21,930 --> 00:16:24,990

There's a couple other elements to factor into this as well.

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00:16:25,320 --> 00:16:32,010

First, how old is your resource and is something more recent or relevant available?

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00:16:32,760 --> 00:16:38,339

Very often it's easy to kind of fall into the habit of using the same resource semester after semester,

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00:16:38,340 --> 00:16:41,879

year after year, because it's familiar, it's comfortable.

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00:16:41,880 --> 00:16:44,760

You know the content very well, you know how to teach it,

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00:16:45,120 --> 00:16:53,700

and it's easy to just sort of keep moving forward with it rather than look for something new. And older resources are not necessarily bad.

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00:16:54,000 --> 00:17:01,800

There's a lot of seminal works in different fields that were written ten, 20, 30, 50 years ago, that it's important for students to be familiar with.

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00:17:02,520 --> 00:17:09,179

But, it's also important to take a look through your resource list, and make sure that the information and resources

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00:17:09,180 --> 00:17:15,150

you have there are the best ones for students, and not just ones that you're keeping because they're comfortable.

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00:17:16,360 --> 00:17:23,260

In addition, look at who's creating your resources, and who is and isn't represented.

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00:17:23,740 --> 00:17:31,570

Are all of the authors or video hosts white, or cisgender men, or white cisgender men?

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00:17:32,590 --> 00:17:36,969

What does that tell your students about who is welcome in the field?

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00:17:36,970 --> 00:17:44,730

About whose voice gets to be heard? Make an effort to try to find sources from a diverse spread of creators.

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00:17:44,730 --> 00:17:51,690

So you get more perspectives and more voices, and all of your students are able to see a future for themselves in the field.

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00:17:54,380 --> 00:17:59,480

And with that, I'm going to pass it back to Lauren to continue talking about before class prep.

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00:18:00,740 --> 00:18:05,120

[Lauren:] Thank you. So some additional quick tips that you can implement before class.

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00:18:05,510 --> 00:18:10,910

The first is to make your course material requirements available to students in a timely manner.

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00:18:11,480 --> 00:18:18,170

The 2008 Higher Education Opportunity Act requires that instructors provide course material information

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00:18:18,170 --> 00:18:23,630

in a timely manner, so that students can have the opportunity to understand the costs of a given course.

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00:18:23,930 --> 00:18:27,080

And it also gives them time to comparison shop for texts.

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00:18:27,860 --> 00:18:31,910

This enables them to be prepared on the first day of class. If they know what what

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00:18:32,060 --> 00:18:35,750

materials are going to be assigned, and they have the opportunity to look for them,

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00:18:35,750 --> 00:18:40,400

then they can purchase them ahead of time, or gain access to them through the library and be prepared.

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00:18:41,300 --> 00:18:45,620

In addition, if a student has a disability and needs special accommodations,

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00:18:45,620 --> 00:18:50,900

the conversion process of print materials to accessible digital materials can take time.

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00:18:51,140 --> 00:18:57,290

So, for instance, if there is a student in your class who needs a Braille version of your course materials,

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00:18:57,590 --> 00:19:04,580

they need to know that ahead of time so that they can work with the Accessible office on your campus to make those materials accessible.

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00:19:06,210 --> 00:19:13,230

When you're listing course materials, be sure to list all editions of the textbook that are acceptable.

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00:19:13,530 --> 00:19:18,959

Oftentimes, if you are allowing students to use an earlier edition of a book,

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00:19:18,960 --> 00:19:23,810

libraries are more likely to be able to make those materials available to students

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00:19:23,820 --> 00:19:26,760

because students can oftentimes check them out through interlibrary loan.

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00:19:27,960 --> 00:19:34,230

You should also include information about access codes and any software or tools, if those will be required.

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00:19:35,500 --> 00:19:41,829

And then if your materials are provided at no cost through the learning management system that you use,

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00:19:41,830 --> 00:19:47,800

you can also state that, so that students know that there are no additional course costs to take that course.

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00:19:50,530 --> 00:19:56,380

If you haven't already, you should also check with your library to see if they offer course reserve services.

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00:19:56,740 --> 00:20:01,870

Course reserves allow for shorter checkout times, so that students can come to the library,

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00:20:01,870 --> 00:20:08,290

check out the textbook for free, read the assigned chapters, and then return the book. This saves students money,

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00:20:08,290 --> 00:20:11,560

and it guarantees at least one point of access to the materials.

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00:20:12,040 --> 00:20:17,890

It also gives students the option of using free scanners that are often available within library buildings.

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00:20:20,420 --> 00:20:23,960

Also before class, it's good practice to post your lesson goals.

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00:20:24,410 --> 00:20:28,010

You could do this in the learning management system, in the classroom,

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00:20:28,010 --> 00:20:33,440

or even by asking students to write the lesson goals down in their notebooks or on their computers.

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00:20:34,010 --> 00:20:38,060

Providing lesson goals helps the students know that—what they're hoping to achieve,

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00:20:38,360 --> 00:20:45,560

and, if you make lesson goals available in multiple places, it helps to reinforce concepts and grounds student learning.

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00:20:47,080 --> 00:20:51,250

Another tip is to use presentation slides, plus notes.

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00:20:51,640 --> 00:20:56,379

So if you use presentation slides, it can sometimes be helpful to students,

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00:20:56,380 --> 00:21:02,560

especially who like to prep ahead of time before class, to be able to see those presentation slides before class.

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00:21:02,830 --> 00:21:06,760

And if you have notes that are in the notes field of the presentation slides,

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00:21:06,940 --> 00:21:12,249

if you feel comfortable leaving those there and giving students access to those notes, that way they have

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00:21:12,250 --> 00:21:16,990

all of the contextual information that they need, and not just the slides with the simple bullet points.

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00:21:20,060 --> 00:21:27,650

Prior to class you'll also want to check all materials to ensure accessibility. Within this UDL practicum,

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00:21:28,100 --> 00:21:33,110

you can check out the session tools for making your digital course materials accessible,

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00:21:33,110 --> 00:21:38,210

flexible, and usable for all, to take a deep dive into accessibility practices.

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00:21:38,690 --> 00:21:45,379

But for here. I'll just mention that one way to begin practicing digital accessibility within

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00:21:45,380 --> 00:21:50,240

your documents is to utilize accessibility checkers within the apps that you use.

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00:21:50,510 --> 00:21:54,709

So Microsoft Word, PowerPoint, Google Docs,

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00:21:54,710 --> 00:22:02,240

Google Slides, and Adobe all have built-in accessibility checkers to help you make your documents accessible to students.

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00:22:02,840 --> 00:22:05,120

If you're a beginner at digital accessibility,

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00:22:05,330 --> 00:22:12,229

most of those accessibility checkers will also provide some information about why they're fixing what they're fixing,

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00:22:12,230 --> 00:22:17,209

or why you need to have alt tags or structured text within a document.

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00:22:17,210 --> 00:22:23,480

So it can be a way to learn a little bit about digital accessibility, so that when you start making documents,

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00:22:23,480 --> 00:22:33,500

you'll start making them accessible from the get go. At Northwestern, we provide access to a variety of accessibility tools to our campus community.

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00:22:33,980 --> 00:22:44,299

One of those is called Sensus Access— that's S-E-N-S-U-S Access—and that converts inaccessible materials into an accessible format.

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00:22:44,300 --> 00:22:48,470

So you might consider looking into that tool if that's something that you think would be helpful.

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00:22:52,450 --> 00:22:56,500

Okay. So lecture capture recordings are a key

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00:22:56,530 --> 00:23:04,420

UDL strategy, and research has shown that students who review lecture recordings better retain and understand the material presented.

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00:23:04,810 --> 00:23:07,900

So when you record a lecture, depending on the tool that you use,

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00:23:08,110 --> 00:23:16,720

it often generates a transcript that can be used for closed captioning and could be posted later within your learning management system.

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00:23:17,440 --> 00:23:22,720

Transcripts are keyword searchable, which allows students to find the section of the video that they want to watch again.

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00:23:22,990 --> 00:23:26,140

Or they could just read the transcript to get the information.

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00:23:27,100 --> 00:23:32,889

Once you record videos, they are available indefinitely for students to use each quarter or semester, and in addition,

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00:23:32,890 --> 00:23:37,360

recording short videos and assigning them as pre-class preparation could free up some

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00:23:37,360 --> 00:23:42,310

class time to do active learning activities, so you could use them for a flipped classroom.

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00:23:44,260 --> 00:23:51,280

So how do you record your videos? I'm sure many of you have gotten used to using Zoom, since the pandemic began. At Northwestern,

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00:23:51,280 --> 00:23:55,690

we have two primary resources for lecture and video recording.

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00:23:56,380 --> 00:24:06,100

The first is Panopto. So, Panopto provides live and on-demand video options that students can access and then watch later via their web browser.

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00:24:06,790 --> 00:24:13,840

It can be used to record you, your screen, a whiteboard, a digital whiteboard, and even document cameras.

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00:24:14,680 --> 00:24:19,870

There is a built in editor within the Panopto platform, so that you can easily edit and update your videos.

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00:24:20,820 --> 00:24:27,570

The transcripts are automatically generated and can be exported as a text document, and then videos have the capability of

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00:24:27,570 --> 00:24:34,290

being integrated within the LMS, so that you could record a video and then send that straight to your LMS course.

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00:24:38,060 --> 00:24:46,790

As for video production, many universities are also offering what is sometimes called one button studios or video production studios.

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00:24:47,090 --> 00:24:55,550

And those give faculty and instructors the ability to create professional-quality instructional videos without the need for in-depth training.

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00:24:56,120 --> 00:25:01,520

At Northwestern, we have a video production studio, and it gives instructors two recording options.

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00:25:02,150 --> 00:25:06,230

The first is lightboard mode, and the other is self-service mode.

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00:25:06,890 --> 00:25:10,250

So with lightboard mode, that's the screenshot here on the right,

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00:25:10,760 --> 00:25:19,280

that utilizes a glass chalkboard that uses light to allow users to face viewers while writing and recording a lecture.

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00:25:20,240 --> 00:25:27,200

This tool was created by Northwestern Engineering Professor Michael Peshkin, and the board is videotaped in mirror reflection,

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00:25:27,200 --> 00:25:35,750

so it gives users a quick and easy way to communicate technical subjects, equations, and sketches, all while engaging with the camera and the viewers.

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00:25:37,850 --> 00:25:45,770

Our self-service model is also available, and that offers an easy way to record a presentation or lecture, deliver a research presentation,

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00:25:45,770 --> 00:25:51,049

or to create an instructional demonstration video within a studio space.

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00:25:51,050 --> 00:25:59,990

So you have the space to yourself and you can close the door. I've also seen many faculty use a video production studio or one button studio to

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00:25:59,990 --> 00:26:06,110

create an assignment where they have the students go and use the studio themselves.

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00:26:06,650 --> 00:26:13,430

So reach out to your I.T or Digital Learning team to learn more about your options for video production at your institution.

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00:26:17,390 --> 00:26:21,830

All right. So during class. Here are some other quick strategies that you can offer during class.

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00:26:22,190 --> 00:26:26,810

The first is to offer visual imagery or mnemonic devices when explaining concepts.

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00:26:27,950 --> 00:26:34,159

There's a simple example on this slide, and any time really that you can offer some sort of image or mnemonic device,

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00:26:34,160 --> 00:26:38,770

it could be helpful. Embed new ideas in familiar contexts.

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00:26:38,790 --> 00:26:47,240

So when possible, draw on art, music or popular culture. That is often—those are often things that are a little bit more sticky in our minds.

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00:26:48,710 --> 00:26:53,480

This third option is to use a Google Doc so that students can crowdsource lecture notes.

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00:26:54,470 --> 00:26:59,240

I love this idea. It's something where, at the beginning of quarter or semester,

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00:26:59,250 --> 00:27:07,820

you can create a Google doc and then give the link to students, and give them editing power, so that they can begin taking notes during lectures.

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00:27:08,210 --> 00:27:12,500

It can be a useful ongoing document for the students to reference.

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00:27:12,770 --> 00:27:18,110

And it will also be illuminating for you, as an instructor, to see how the students are interpreting your lecture.

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00:27:18,380 --> 00:27:22,010

And it could give you an opportunity to see points where students—where

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00:27:22,010 --> 00:27:27,230

concepts aren't quite clear to students, or where you may need to explain a little bit more or clarify.

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00:27:30,280 --> 00:27:37,190

And I will pass back to Christine to talk about after class. [Christine:] Yeah, so, some of these ideas are things that we've already touched on before.

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00:27:37,730 --> 00:27:42,290

A lot of these things can be done at a variety of points throughout the course experience.

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00:27:43,370 --> 00:27:51,260

One thing that we really encourage is to reinforce learning by sharing materials online.

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00:27:51,890 --> 00:27:55,880

That way students can come back to things after the course is finished,

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00:27:56,210 --> 00:28:07,340

access the course site in your learning management system, and look back at lecture notes or a slide deck or a lecture capture recording.

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00:28:08,900 --> 00:28:14,629

So related to that, you know, posting your lecture notes after the class is also really good.

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00:28:14,630 --> 00:28:22,040

If you don't have a slide deck or other notes prepared in advance of class, sharing

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00:28:22,040 --> 00:28:28,340

anything that you might have after class can really help students remember what they learned during the course and refer back to.

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00:28:28,580 --> 00:28:32,420

And this could be an outline, class notes—it doesn't necessarily have to be slides.

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00:28:33,810 --> 00:28:36,930

You can ask students to share resources that they find.

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00:28:37,350 --> 00:28:45,450

This is a great way to encourage students to be more engaged in the course, to develop their research skills.

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00:28:45,810 --> 00:28:52,950

And, those are resources that you can filter through and then use the best of them in future classes.

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00:28:54,780 --> 00:29:00,980

And, you can also, you know, take note of where students seem to be struggling.

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00:29:00,990 --> 00:29:06,900

If you are getting a lot of questions, either in class or outside of class about a particular topic,

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00:29:07,260 --> 00:29:14,729

use that time to maybe record a quick two-minute video explaining the concept in

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00:29:14,730 --> 00:29:19,830

more detail, to help clarify those questions. That will help your students right now,

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00:29:20,100 --> 00:29:25,110

but then, you have this video available to you, for the future,

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00:29:25,110 --> 00:29:30,330

any time that you teach this course. And you don't have to wait for students to ask questions in the future.

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00:29:30,510 --> 00:29:33,630

You can just provide that video upfront as additional viewing.

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00:29:36,850 --> 00:29:45,639

And finally, we want to touch on some issues of multiple means of representation and how it can be used to support

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00:29:45,640 --> 00:29:51,070

students who are dealing with the mental health and stress issues that we've been addressing.

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00:29:52,390 --> 00:29:57,190

These are strategies that you can apply pretty much at any point in the course, and

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00:29:57,190 --> 00:30:02,950

are based on some of those trends that we talked about earlier as we continue into,

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00:30:05,300 --> 00:30:08,180

the, however-many years of the pandemic.

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00:30:09,680 --> 00:30:19,730

So one thing that can be very helpful is to provide information in smaller chunks. Rather than having a 30-minute video, maybe have three 10-minute videos.

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00:30:21,260 --> 00:30:25,310

You may also need to repeat information more than you would have previously.

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00:30:26,450 --> 00:30:31,070

If you have a deadline listed in a course syllabus,

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00:30:31,250 --> 00:30:38,930

you may also want to repeat it at the course session, when you all meet, or send out

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00:30:38,930 --> 00:30:43,670

an announcement about it in an online course, to remind students that it's coming up.

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00:30:44,300 --> 00:30:49,010

This can be really important for students who are dealing, particularly with issues of memory and focus.

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00:30:50,160 --> 00:30:53,899

Providing information in an audio format can also be really helpful.

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00:30:53,900 --> 00:31:01,620

This can allow students to multi-task. They can listen to their weekly reading on their commute or while they're working out or making dinner.

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00:31:02,160 --> 00:31:06,420

And, one thing that's nice about the audio format is, this doesn't necessarily mean that

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00:31:06,420 --> 00:31:11,130

you have to sit down and personally read the entire textbook out loud and record it.

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00:31:11,970 --> 00:31:17,760

Although, if you wanted to record yourself reading out a chapter of the textbook, some students probably would really appreciate that.

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00:31:19,230 --> 00:31:31,080

What you can do instead is provide text resources that are formatted in an accessible way, so that a text-to-speech tool can read through it.

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00:31:31,620 --> 00:31:35,310

That way, you basically have given students two options.

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00:31:35,520 --> 00:31:40,049

They can either read it as text, or they can use a text-to-speech tool and have

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00:31:40,050 --> 00:31:45,160

it converted into audio, without you having to create a whole separate resource.

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00:31:45,180 --> 00:31:54,410

They can just use some tools that are available. Finally, if you do have longer resources—sometimes you can't cut a video down.

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00:31:54,420 --> 00:31:58,400

It needs to be 30 or 45 or 60 minutes long.

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00:31:58,410 --> 00:32:05,010

Or maybe you have a very lengthy text resource. Make sure that it is something that students can search through.

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00:32:05,550 --> 00:32:10,530

This is why transcripts for videos are so important, and making sure that any

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00:32:10,530 --> 00:32:15,120

of your text resources are formatted so that they can be searched through.

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00:32:15,510 --> 00:32:23,040

That way, students who need to refresh themselves on a particular piece of information don't have to go back through the entire thing.

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00:32:23,280 --> 00:32:26,340

They can just do a search, and jump right to that point.

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00:32:29,810 --> 00:32:34,820

So, what's next? What can you start doing with all of this information?

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00:32:35,600 --> 00:32:39,860

First, if you would like to learn more about multiple means of representation,

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00:32:40,520 --> 00:32:46,220

we recommend checking out the resources that we have on the handout that goes with this presentation.

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00:32:46,970 --> 00:32:48,770

We wanted to call out a couple of them here.

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00:32:49,010 --> 00:32:57,050

UDL on Campus is a website run by CAST that is specifically focused on applying UDL principles in higher education.

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00:32:57,530 --> 00:32:58,279

And then of course,

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00:32:58,280 --> 00:33:05,840

there is the multiple means of representation on the CAST website, that breaks down, sort of the core elements of this pillar of UDL.

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00:33:06,930 --> 00:33:14,009

And also just to kind of reiterate what we've talked about throughout this presentation, look for single streams of content in your course.

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00:33:14,010 --> 00:33:21,000

Identify places where students can only get information in one way. And then, implement that +1 approach.

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00:33:21,240 --> 00:33:25,920

Just add one extra option to the single stream that you have.

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00:33:26,550 --> 00:33:30,380

And again, start small. You don't have to redo your whole course.

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00:33:30,390 --> 00:33:33,720

You don't even have to redo an entire week all at once.

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00:33:33,990 --> 00:33:39,690

You can pick one resource and add an additional modality to it, and that's an improvement.

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00:33:40,080 --> 00:33:46,230

And as long as you can keep doing that and, iteratively improving your course, your students are going to benefit.

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00:33:47,400 --> 00:33:53,370

Thank you so much for joining us. And we hope that you enjoy the rest of the practicum.