Will Cowan:... different tools that pretty much we have developed here at Indiana University that deal with working with digital video, what I've been working with and what I'm particularly interested in digital video is exactly what you need to do to have a scholarly use of online digital video content. I'd like to start off by kind of maybe talking about what I think are some important capabilities that you have to have. First off, I'd say what you'd need to be able to do is you need to be able to segment your video. You need to be able to say that I want to look at this segment of video that starts at some arbitrary time in the video, ends at some other arbitrary time and I want to be able to not only represent that someplace, but when I present that back on the web, I want to be able to say just play that segment. Don't play anything else. Don't let people go anywhere else in the video. I want to talk about this segment of the video. I don't want people messing around with other stuff. In addition to that then, when you've got these segments done, I think people need to be able to annotate that segment and by annotation, I mean add their own commentary about their interpretation of what's going on in this segment of video, or be able to do transcriptions, things of that nature. So it's to really be able to work with that segment of video and describe it or transcribe it, etcetera.

In addition, I think you need to have the ability to collect more and more, the way that most sites like this are, you need to have this ability to do community commentary, and by community, that can mean the students in the class you're teaching; that could mean colleagues you are collaborating with on this project, or it can even mean just the general public. You want to be able to have the general public comment on the video that you're putting up there. It's things like that that you want to be able to collect that kind of information. Now sort of counter to what I was saying before in the first part, on segmentation, you also want to be able to present those segments in the context of the entire video when you need to or when you want to, so you want to be able to do both things. You want to be able to show here's this video segment and the entire video, but I also want to be able to separate out that segment and talk about it individually.

Basically I've gotten a grant from the NEH Office of Digital Humanities, a startup grant, and I use that grant to create a video plugin for Omeka. Have people heard of Omeka?

Audience: No.

Will Cowan: Okay. Omeka was developed at George Mason University at the Center for History and New Media. It's really, initially it was kind of thought that it was going to be a repository type tool, but it quickly evolved into being an exhibit type tool, so basically what its for is to allow small and medium size organizations to be able to get digital content up online and available to the public quickly and easily. I think that's their principle. Now in the meantime, places that are much larger than a small museum or a small library, Indiana University, Duke, Virginia, you just name large universities, Stanford, they've all started looking at how Omeka can be used to get their digital collections online, because often, like at IU, what we have is a situation where we've got two million digital objects that are a fedora repository, and a fedora repository is just a
digital repository where you keep all this information about your digital objects, and we want to be able to put those objects up on the web in kind of different ways. We don’t necessarily want to be able to just say yeah, we’re going to put all the images together. We’re going to put all the videos together. We’re going to put all the text together. People want to be able to create web sites that combine all of those things into a single exhibit, and so that’s where we see tools like Omeka being able to be used to be able to do that, to bring stuff from multiple different formats and put them into a collection that’s focused on some specific thing, so one of the big ones that we did recently is the War of 1812, so we brought a bunch of images, we brought text files, we brought manifests from ships, we brought all sorts of content from the Lily Rare Books collection, and we put it into a single web site. So what I’ve done then, what I did then with this tool is develop then this website and one of the first passes I made at it, one of the things I did at first when I worked on that was basically I took, how many of you are familiar with Word Press? Remember Word Press has themes where you lay out the page with the themes, Omeka has the same thing, so one of the first attempts I did with dealing with digital video in Omeka was to work at the theme level and so I came up with these different themes that would show video and allow you to play back video, so this is an item, it’s a segment of a video. It goes from 20 seconds into the video to four minutes and 47 seconds and it allows you then to play back each of those, and you can see as you scroll down the page each object that’s a video has that video representation, and if I want to look at a bigger, a whole screen image of that, I can then click on the object itself, they’re singing. This is from the ethnographic video project I worked on. She was interested in gospel singing in northern Scotland, and that’s what you are seeing here, is this gospel singing in northern Scotland, and that’s what you are seeing here, is this gospel singing in northern Scotland by a group called “New Life”, and you can see, this is pretty typical of what you get with digital video, especially when you play it back on line.

You get an embedded player of some kind, that embedded player allows you to say something like start the video at 21 minutes and X number of seconds, but you may notice that every player I know of will almost allow you scroll back to any place in the video you want to, so I can scrub to any place in the video I want to, and so what I was trying to do then is to create a plugin that would say no, you can’t go to. What did I do, lose it? I think I have three or four different people singing at this point. I wanted to create a plugin that would restrict that so that when you went to play a particular video segment back, that you would just get that particular video segment playing. It will take it a while for this to connect. The reason, and the way that you have to do that now with most video players is that you have to, let’s go back to our “New Life” singing again. If you’re going to do that with video you have to take over the control of the player. You cannot let the player use its own default tools to play back. Basically what this plugin does is give you an option to say use the external player or use the external controls on it. So now you may notice that this is starting at 16:07. It goes to 20:51, and you can’t go anyplace else. I can’t take this and scrub back before that 16 seconds. I can't go any further than the end, so I’m playing back this segment and this segment only. So, part of that is so that you can set things up so you can get commentary on it. You can provide commentaries, so down here in this part of; in this part here is where the individual has
talked about what’s going on in this particular segment.

You can create tags to link it to other places, so this gives you that ability to work with the video, to segment it, to play back segments, then with other plugins that Omeka has, you’re then able to collect commentary on each of those video segments, so you could have students or other people then comment on your segmentation, on your transcription, etcetera. So the point of this is to give that kind of ability, to say I’m going to restrict the playback to that particular section of the video, so that I can do things like collect commentary. Now what else interests me about video, and I’d better turn that off or it will drive me crazy; the other thing that interests me about video is not just being able to display it and get it out to the general public, but what I’m also interested in is how it might be used for research, and this particular example is one that I worked on with Rich Edwards. He’s now at Ball State University. He used to be here at Indiana and he has written a book with Shannon Scott Clute. He’s at Turner Classic Movies now, and he wrote a book called “Maltese Touch of Evil: Film Noir”, and so what he is interested in is applying some of the thinking of a group of literary critics and literature creators from the early 60s called the Oulipo. I won't embarrass anybody by trying to pronounce the French on that, but it is the workbench of literary potential, and so what they believed actually was by applying constraints to the creation of literature and the criticism of literature you would learn more about literature by applying those constraints.

One of their more famous works is a novel that doesn’t have the letter E in it anywhere, and actually the plot line of the novel starts to center around this missing letter E over a period of time. Another one of their works is a sonnet, so 14 lines of sonnet. There's ten sonnets. Each line in the sonnet can be put any place in the whole line of 14 within the sonnet, which means you have the ability to create 10 to the 14th power of sonnets out of these ten sonnets, so that is the kind of thing they're interested in. I applied this constraint, but that constraint doesn’t limit me, it actually causes things to explode and go beyond that. What I’ve done here is I’ve taken 20-film noir from the public domain so this is from internet archives, downloaded them. I looked at the length of the film noir; it was say 100 minutes, and this was actually a little less than 100 minutes, and so I said I’m going to divide it into 100 segments, so each segment here is going to be 54 seconds long. I might go to the next movie and I might find that each, when I divide it into 100, each segment is 52 seconds long, and so forth, through all 20 of these film noir.

Once I did that, then within Omeka, remember you can assign those tags? So I just assigned a tag to each one of these segments. This is tag one, tag two, tag three, tag four, and so forth, and then I go to this little browse by tag, and I don't know, let's see what happened at 33, 33, the 33rd segment within these 20 film noirs. Again, it's somewhat arbitrary, and you can see then here are some of the film noir “We Talked Too Late For Tears,” “The Hitchhiker,” nice close up there. You may have noticed that's another thing I started tracking. One of the things I discovered in film noir is they do a lot of close ups. And there is a lot of people talking in film noir. I never realized how much people stand
around and talk in film noir, and when you start looking at these segments, you start seeing more and more that you get pretty much segments like this; here's two people talking, two people talking, two people talking, just over and over again you see that sort of pattern coming. This allows you then just to go into any, again, any point within the movie and say I wonder what happens halfway through all of these movies? So let's look at 50%, and then I'm then shown that 50% point in these movies, and some of the images are filling in a little bit slower, but again, if you get back to it, I notice there's two people, two people, two people, two people, three people, two people, two people. I've noticed a lot of pairing in film noir. So anyway, what I'm interested in this then is to be able to start using, I found it very easy to start taking some of the basic tools that I had developed to work with video, and then be able to start building tools to do this kind of analysis, to kind of help with research. I think initially I thought of Omeka as being that exhibit kind of software, and then I thought maybe there's things that you could do that would help with research, and so for instance, all that data they were collecting on shot length, it would be very easy to take that data and load it into Omeka and get a page like this where you have all of it broken out into shot length, and as a matter of fact, that was one of the features that talking with Rich Edwards, we wanted to add to this was some kind of a graphic that would show the shot length of this in relation to other shots around it.

So I think there's lots of ways then we can start thinking about how to use these different tools to be able to do different analysis and different approaches to looking at video, comparing video. And again, I like Lev Manovitch and all of that stuff. I agree with Doug [Reside] and I think it's great that he's doing it, because I think he is doing a very playful way, serious but playful at the same time, but I have to agree with Chris [Jan-Christopher Horak], I'm not sure what value that is going to have. Some of the stuff is fun, it's interesting. I find this kind of thing much more interesting, to be able to take that output and then be able to map it directly into images within the video itself and be able to start working with those images within the video, rather than just sort of end up with a graph that shows me, in 1940 the shot lengths were longer than they were in 1980. The reason I think then to look at the video is well, why? What's happening within that shot that makes it longer than the shots they're doing today? I mean you can talk about people want more movement or action or other things, but I think you need to go beyond that and say what's the content that's associated with those shots? I think that's why tools like this are interesting to me. To be able to take that kind of analytical material and map it into this for more interesting. So anyway, that's my general thinking on this. I don't really have much more to talk about, so it's kind of open to talk about anything else that people want to talk about for a few minutes.

Allyson Nadia Field: You created a scene; you segmented by time, so a minute, right? You broke it down evenly. Could you do this, a film, when you segment a film as a scholar, it's by narrative points, right? So the segments are different lengths? They're not even.

Will Cowan: Yes.
Allyson Nadia Field: Is there a way you could adjust it so you could look at film noir kind of the way the beats hit in Film Noir and cross compare then?

Will Cowan: Actually this is a tool called The Annotator's Workbench that we developed for an ethnographic video project I worked on. What this does is allow you to play back the movie and then down on the time line here, you set arbitrary lengths of video segments that you want, and actually to then, what I did for that one, with the gospel singing one, it was originally done in this tool and then I wrote another plugin that allows you to import that information into Omeka, so all those segments that were done in Omeka came from this tool, where you create those arbitrary segments and then you write that descriptive metadata about the segment up in this area, here.

Allyson Nadia Field: That's Annotator's Workbench?

Will Cowan: Yes. And if you go for instance, this site, the address is up there, www.beliveIndianaProjectsOmeka2 and if you look at streaming videos and tools on that site are links to all of these different tools, to the Omeka plugins and the Annotator's Workbench, the documentation on the Annotator's Workbench, documentation on the plugin, all of that information is in this tools section here. So there's two versions of the Annotator's Workbench, one for Windows and one for MATS. There's the user's guide. This is all the themes that I did for that first segment. There's the plugin for the video streaming, so all of that information there is on that web page and they're all linked so that you can download. These are all open source, freely available for people to use.

Terri Francis: So I have a DVD, let's say “Bamboozled”, and I want to analyze that, so I'm going to record that somehow on...

Will Cowan: You're going to digitize it. That's all that talk we had this morning about how to digitize it, so it's going to be a digital copy of it.

Terri Francis: So I start here, and then I use then my scanned copy to, I can upload it somehow into this software, and that's how I begin my annotation. Sort of like, I get a book you can write your notes, that's how this is meant to work?

Will Cowan: Yes, and you can actually, you can go in, in this tool and do some minor adjustments to the lines but you probably don't want to do it too much.

Terri Francis: Are you talking about, it's scanning the entire movie, or just the segments that I already know that I want?

Will Cowan: My recommendation is that you scan the entire movie, and then you just pick the things out of that movie you're interested in, in discussing?
Terri Francis: Are we allowed to do that? I thought ...

Shola Lynch: It's illegal.

Doug Reside: You're not, actually.

Shola Lynch: It's illegal.

Jacqueline Stewart: Wait, wait, wait, wait. That’s not entirely true. For teaching, every three years, the library of congress, we've used on this fair use thing for a long time.

Doug Reside: The films, right, it's in the copyright office. It's sort of allowed, but not, to upload it actually.

Allyson Nadia Field: The process of ripping is illegal, right?

Doug Reside: But the process of ripping for a film studies class is ... I think maybe you know better was approved again in the last...

Shola Lynch: Nobody will litigate it, but if you talk to the business people, you're not supposed to be taking copies and doing whatever with them. However, for filmmaker's perspectives, there is a difference between teaching or exhibiting in a class, and showing it in an auditorium, or etcetera, which is why filmmakers are posting things online.

Will Cowan: Or charging you money. But again, also by being able to specifically restrict what is being displayed, you can counter-argue, they can only see this two-and-a-half minutes I've let them see.

Shola Lynch: I'm sorry, I'm sorry to interrupt your workflow by having ideas about our own work, whatever.

Jan-Christopher Horak: So is Omeka like YouTube except you can do all this other stuff with it? Or is it once you've uploaded to this site, are you the only one accessing it or is it open to the public?

Will Cowan: Yes, all of the above.

Jan-Christopher Horak: My other question is do they charge you for that, or is this another...

Will Cowan: Omeka is open source. It's available for anyone to download and install the set up.

Jan-Christopher Horak: So they supply the server space for all of this stuff?
Will Cowan: That's another product they have called Omeka Net that will supply the server space for that.

Jan-Christopher Horak: And you have to pay for that?

Will Cowan: There's a free version, but if you want to do anything serious, you're going to have to pay them money.

Jan-Christopher Horak: Like the live files?

John A. Walsh: And it's not strictly for video. It's for images, documents, any kind of digital content?

Will Cowan: Yes, and again, it's initial focus was to have an environment that was easy to set up for small libraries, small museums, small archives, but it's so easy to use that a lot of other places want to use it too. If you just type Omeka in Google, it will take you, I think it's the first thing that will come up, will be the site for it. Omeka is supposed to be Swahili for laying out your wares. That's what I've heard people say. I don't know about it.