## **OER Revisited MP4 Video Transcript**

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Event: CHEO Discipline Panel Faculty Professional Development Workshop –

By Design: Taking ALL Allied Health Students Across the Finish Line

**Date:** May 14, 2015

I've been asked to speak about open education resources. As you know, the TAACCCT program has the CC BY requirement, which means that everything that you produce in terms of curricula will be openly licensed with Creative Commons licenses, and in a sense become open education resources. And I decided to use the salmon-- I'm from Vancouver, British Columbia, it's salmon season right now, the spring salmon are kind of coming home. And the topic that I'm going to speak on is open education resources revisited, and it's sort of interesting for me to reflect back on the whole trajectory of open education resources. And I wanted to share with you in this presentation some of how I've seen that whole field evolve.

So, first of all, what are open education resources? I think all of us think of them as content. And that content can be simulations—you've been talking about the PHET simulations. It can also be learning resources that are just pieces of a course. It can be a textbook. So the open textbooks that are available from OpenStax, these are examples of open education resources. It can also be complete course, and so this is a course from another TAACCCT grantee that has been created and put up in Carnegie Mellon's Open Learning Initiative.

And evolving forward, just in the past year, what we're starting to see is complete programs made up of open education resources. And this is an example from Tidewater Community College, where they have 21 OER-based courses that together, collectively, they're calling a Z-Degree-- we would call it a Zed-Cred in Canada-- that make up an Associate of Science degree program in Business Administration. So we're moving away from little tiny pieces of education content to complete credentials that are made up of open education resources. And the Z-Degree notion is being used as a marketing tool to students because the cost to participate in a Z-Degree is less than the cost that they would pay to take a regular degree.

One of the most common questions I get about open education resources is, everyone sort of thinks of them as being simply free. No-cost resources, reduced costs for students, reduced costs for faculty, reduced costs for institutions and the public. But really, free does not equal open education resources. It's a first part of what constitutes an open education resource, but it's not the complete part. So, when you see free things on the web, they're still completely bound up in intellectual property and copyright. And really, yes, you can go to that site and look at them and use them, but if you want to modify them or change them, or many of them are time bombed in terms of going away once the student completes the course.

Free's good, but not as good as open. And so, when we talk about open education resources, we're talking about free and open together. And the open part gives you these powerful additional rights. So, because something's free, doesn't mean you get to retain it, or reuse it, or revise it, but if it's free and open, then these additional rights come with the resource.

So you can actually keep a copy, the students can keep a copy, you can use it as is, or you can revise it and adjust it and modify it, remix it with other works, and you can have a copy on your own website and distribute it freely to students. So these additional permissions and rights are part and parcel of what constitutes an open education resource, and it's these additional rights that are associated with the use of the Creative Commons licenses. So the Creative Commons licenses-- this is the spectrum from least free to most free, if you will. And the TAACCCT-- this is interesting, the colors are not quite working-- but the TAACCCT program is the CC BY. But in general, the OER-- what constitutes an open education resource-- would fall into these possible licenses. These ones that don't allow derivative works would not be considered open education resources.

So a kind of inherent principle of an open education resource is that faculty and students are allowed to revise and modify the resource to suit their understanding of the domain, the way they like to teach, the way they like to learn. And resources that are no-derivatives, meaning you're not allowed to change them, would not really fall within the open education resource category.

Another big change that I've noticed, in the last few years, especially, is the explosion of open education resources around the world. And so in my role at Creative Commons, I'm Associate Director for Global Learning, so I'm actually doing

a lot of work in different parts of the world. And I just put up this site-- I mean here is open education in South Korea, Russia, Italy, Philippines, Japan, South Africa, Wales, Finland-- the list goes on. And it's very fascinating and interesting to explore how this is being adopted and how it's being implemented in these different countries around the world.

And I know that this isn't bang-on target for TAACCCT, because TAACCCT is a very US-national kind of program, but my point on emphasizing this is that as the collection of open education resources expand around the world, you'll be able to tap into things that are coming not only from the US, and from North America, but from other parts of the world. And it opens up incredible opportunities for partnerships with others in different parts of the world who are working on similar academic programs and credentials as you are. So you can actually begin to explore partnerships.

And we've noticed this too, at Creative Commons. So we've had this incredible growth of how many works have been licensed with Creative Commons from 50 million in 2006 to almost a billion last year. And yes, the initial use has come largely from North America and Europe, but it's starting to really grow in other parts of the world as well. And when I'm in other parts of the world and I show them this map-for example I've been in the Arab world a lot recently-- I mean, they look at this number, and they're actually motivated to increase in expand the number of open resources they have so that we have a better understanding of their culture, and understand why they function the way they do as a society. And the last thing I'll say about the Creative Commons piece is that yes, OK, we see Creative Commons licenses being used in the education space, but it's also being used in a wide variety of other sectors. And so, everything from research articles to photos to Wikipedia itself, are all making use of the Creative Commons license to make their resources open and reusable by others.

I decided to grab this slide from a talk that Dirk Van Damme gave. He's with OECD, and he gave this talk a few weeks ago at the Open Global Education conference in Banff. And I really liked it in the sense that he was starting to portray what I think is true as well, which is that open education resources are not just about content. And this is perhaps the number one message I want to leave you with today-- that open education resources are more than content. It's not just about creating quality resources that can be easily distributed and reduce barriers to learning. It's also about generating new forms of learning, and creating collaboration between

faculty and institutions. And sure, a lot of ways in which open education resources are touted is as a public and private cost-saving component, but I think that these things-- especially these two, which are the two I'm going to talk about today-- are perhaps where the greatest innovation is starting to happen.

So let me talk about how open education resources relate to new forms of teaching and learning from a pedagogical perspective. And this is where I think it gets more exciting than thinking about open education resources as simply content. David Wiley has been writing about what he calls open pedagogy, and he essentially is asking this question-- if open education resources have these permissions, these 5R rights that you all get when you start to make use or develop open education resources, how can we begin to make use of those rights in the context of teaching and learning? What is it that we could do that would change the pedagogy that we're using to teach with, based on the openness of the resources?

So, the importance of the open education resource-- it's not just that it's open and content that you can freely use and revise, but that it can affect teaching and learning. So, the idea is that if we're going to make use of open education resources, they constitute a kind of airplane. And if all we're doing is swapping out proprietary resources and replacing them with open education resources is like driving the airplane, riding the airplane, as simply driving it down the road. And really what we want to do is have it realize its full potential and take full flight.

So one of the ways this is being framed and discussed is in the context of what's being called disposable assignments. This is a classic example of a disposable assignment-- is one that's multiple choice, true/false, asking students to quickly answer a set of questions that assess their knowledge. They typically don't like these exams, and we typically don't like marking them. And we give the mark back, it gives them the grade but what do they do with it afterwards? They throw it away.

And the alternative that we're starting to explore in the field of open education resources is, how can we create assignments that are not disposable, but instead have students create work that adds value to the world at large? So I wanted to give you a few examples of what that looks like.

This is an example from UC Davis. This is a chemistry prof that has a course where he is creating a chemistry textbook as part of the course. And he has an interesting pedagogical practice and in terms of this textbook. It's an open education resource

textbook, and the students for marks have an assignment where they have to contribute to the textbook, write a part of the textbook. Now of course the faculty member still reviews what the students produce from a quality point of view, and ensures that whatever they're putting into the textbook is accurate and so on. But in reality, the students are now producing a textbook that all subsequent students will see. It's infused with their work, and because it's an open resource, anyone can use. So the students' assignment becomes visible to other students, to their parents, and to the public.

This is an example from the University of British Columbia, in the province where I live. This is something that was done by Jon Beasley-Murray, who's a faculty member there that teaches Latin American literature. And I know CHEO is focused on health, but I wanted to use this example. He was, in this course, looking at the Wikipedia entry for Latin American literature. And it was a really terrible entry, and so he made an assignment for the students to literally revise and improve the Wikipedia entry for Latin American literature, and do such a great job that it becomes a featured article on Wikipedia, which not too many become, and you really have to do an amazing job. And this link tells the story of what happened. Yes, this was an assignment for students for marks. It was only one of a whole large number of assignments—but the investment the students put into this assignment far exceeded anything anyone ever expected. And they became hugely invested in creating an outstanding Wikipedia article—and did, and it did end up becoming a featured Wikipedia entry.

And this is another example of motivation in terms of assignments. If students know that their assignment is going to be open and viewed by others-- their friends, their peers, their parents, the world at large in terms of an entry like this-- their motivation to produce an outstanding work really ratchets up. And so I think from a pedagogy teaching and learning practice we can see that there's some potential to take advantage of having students realize their work will be shared openly, and will contribute to some sort of social good that benefits the world, as a way engaging them.

I usually get asked a lot of questions about tests and assignments being openly licensed, and the implications of that. And how does that work? Doesn't that jeopardize the academic integrity of my course? And I like to use this example is another way of thinking about it. This is an example from DS106, Digital Storytelling 106, which is a very popular program here in the US. It's an open course. The

students have as an assignment in this course, they have to create an assignment for other students.

So your assignment, if you're a student, is create an assignment that other students would have to take. And that assignment that you create is marked, you're given a mark for it, and it also goes into DS106 assignment bank. If you go to this URL, you can see all the assignments in the assignment bank. The assignments are perfectly openly visible, openly licensed, not only can you see them, but all existing students, and all potential students can see all the assignments associated with this course.

When you go through the course, you're in a module, and the module might be dealing with audio. And so your task would be to take a certain number—the assignments are all given a certain number of stars. And so you have to take, let's say 10 stars worth of assignments from this section and do them. But the number of assignment options you have available in each of these is large. It becomes really impossible to cheat in advance. And so this is an interesting example of open education resources being applied to assignments and tests, and how that might work.

Now we're also seeing examples of students being asked to create curated collections of open education resources that supplement and complement the course that's being taught, as an assignment. So, I know how challenging it is for faculty to manage their time in terms of creating course materials that are really engaging. And this process actually passes off some of that workload to the students themselves, and gets them involved in looking at, and assessing, and evaluating the worthiness of educational resources as useful things to include in a particular course. And so, this is an example of students doing that with math and of course, there are lots of repositories now including the one Gerry's going to be talking about-- Skills Commons, where students could be asked to be going in and looking at those resources and pulling out key ones that are useful for them, and could be useful for other students. And then you can compile a complete curated collection of resources that complement your course.

This is another exciting area that's happening in terms of students being asked to create designs for physical houses, for furniture, for all kinds of material, physical goods, and then have those designs be licensed and made available on a site like Thingiverse. And usually these designs are openly licensed in a way that allows you, or anyone else, to customize the design and create your own unique piece of

furniture, or house, or physical good. And so, here again we're seeing the opportunity to have students engage in assignments that create long-lasting, ongoing pieces of resources that contribute to making the world a better place.

So, those are just a few forms of the new ways in which teaching and learning is being shaped by open education resources. And I just wanted to share those as ideas that might stimulate your own thinking about your own courses. And then the other big change I would say is around collaboration. And this is a really huge piece, and I would say that the big change is that we're moving away from the Lone Ranger model of developing courses, to a collaborative model of developing courses.

And in that collaborative model what we're seeing are teams of faculty and others coming together to create courses. And also, we're seeing students involved in the co-creation of courses. I've been seeing some interesting corollaries in other spaces, so this is just a side note, but there's some really fascinating stuff happening around the field of green. And so Shared Earth is a site that lets you, as a person who has some land, say, I've got a garden, but I don't have time to do any gardening. And then someone else to say, I'm a gardener looking for land, and sort of matchmaking between the garden and the gardener. And generally the way this site works is that the produce is shared 50-50.

So something similar to this is what I start seeing as a potential, and is starting to already happen in the open education space, involving a lot of collaboration. So nobaproject.com, if you want to look at it, got your computer open? It's a psychology program set of courses, and it was actually co-developed by a whole bunch of faculty from around the world. And so the whole idea of the Noba project was, can we bring together the best faculty from across multiple institutions to collectively create a psychology program that would be available to students as open education resources? And the quality of what they've produced is really quite phenomenal.

And I heard Sue mention the BC Campus Open Book Initiative, which have the Ministry of Education funding 40 books for the most popular post-secondary courses. This is in my province. The thing I found interesting about this was the way that the students in the other provinces caught wind of this. So there's British Columbia, and then the next two provinces are Alberta and Saskatchewan. And the students in those provinces heard about what was happening in British Columbia

and they said, how come I'm paying \$200 for my textbook, when the students in British Columbia are getting the book for free? And they started writing letters to the president of their institution, to the Minister of Advanced Education, and as a result of this student activism, Alberta and Saskatchewan have now joined British Columbia in this initiative. So, I'm actually starting to see students playing a very active role in pushing forward for this kind of thing.

And their initiative, and this initiative from the University of Minnesota, which is creating an open textbook library, is very much based on a kind of peer review model. And I know Kate participated in the review of one of the books, but essentially what's happening in the institutions is that there's a recognition that faculty will be more inclined to use open education resources that have been peer reviewed, and have been vetted from a quality point of view, so they have some assurance that it's solid. And so, the whole process of getting faculty to collaborate both in the creation of the resources and then in assuring the quality of those resources— and I know this is something Gerry's going to talk about as well— it's really a key thing.

And I wanted to share this one-- not that it's Higher Ed in its focus, this is K-12, but as you know, in K-12, there's a lot of effort going on right now in the Common Core standards all across the United States. And the K-12, OER Collaborative is a group of US states coming together to say, why should we individually create curriculum for language arts and math? Why don't we join forces and create full, high-quality open education resources for mathematics, and English, language arts, and then share them? So they're actually pooling together and coming up with a call for proposals to do this, and then the states themselves will coordinate the subsequent maintenance and upgrading and enhancement of those resources over time. That's an example of a collaboration at a statewide, state-to-state kind of level.

So I mentioned that I've been doing a lot of things around the world. This is me in Saudi Arabia, and I was privileged to be part of the US Department of State's Open Book Project, and we were exploring open education resource adoption in the possibility of helping Arab states create and use open education resources in their native language. And I just want to share one thing that came out of that for me. I won't go into what the whole project was about, but while I was in Saudi Arabia, they convened a gathering of all the deans of online learning across their entire higher education system. And they said to me, we know in North America open education resources sort of started at the grassroots level, with the early adopters

and innovative faculty giving it a try, making it work, and then talking to their peers and building from there. But we're going to skip that stage and go national right away. This is going to go big, without starting small and building up.

And so, their question to me was, what would be the success factors for a national OER initiative? And I had until the next morning to answer that. And this is my answer, I did it all in one page. And I just want to share a few of what I felt were the key insights around that. And I know this is sort of going beyond the practicalities of the TAACCCT program, but I'm trying to kind of present and paint for you a big picture of what this whole field is all about, and how it's evolving.

The first thing I said to them was, because almost all of their questions to me initially were in this technology band. What technology should we use? What repository should we put in place? What tools should we give faculty to create OER? And I kept saying to them, yeah, those are good questions and here's some answers, but you need to think about some of these other things.

And so I wanted to put those other things up front, because really, the technology piece can actually come downstream a little bit. So first of all, I said, why? Why would you do this? What's your strategic purpose? And one of the great things about the TAACCCT program is it has a really strategic purpose, which I think is awesome. You're not just doing open education resources just because, it's for a particular reason.

And so, in the Saudi Arabia case, you know, what's the economic or social impact that you're trying to create through using and developing open education resources? And are you going to offer some incentives? This is a transformative practice. How will you get people to engage? And ideally, you would have a research component that actually assesses what the benefits are from your initiative, and evaluates the changes to practice that happened over time. And of course, you're going to have to do some looking at your policies and your rules around who owns what, and how copyright's handled. And so there's a kind of strategic purpose incentive research and policy piece. But then when it starts getting into, how do you engage all the Saudi Arabian higher education institutions? This is what my recommendation was.

Within an institution, form teams. Move away from the solo, lone ranger model, and form teams of faculty, instructional designers, librarians, Ed tech people, and

have them collectively work together on creating the OER. I think that's your best model for success. And then if we're going to go national and engage all institutions, ideally you would form cross-institutional communities that bring those faculty who share a domain together, but also bring together instructional designers across communities. Librarians across communities of institutions. And get them to talk in dialogue together. And in a sense it seems to me that with a CHEO project, you're kind of doing many of these things. So, some of my recommendations are really based on what you guys are already doing. You're the model.

And then when it comes to creating OER, everyone always jumps down to authoring. And I'm like, you've got tons of existing courses that already have been authored. Why not just openly license them and make them open education resources? You don't actually have to author anything new.

Or go out and look for existing stuff, and just adopt it if it meets your needs. Or if it doesn't meet your needs, adapt it. And certainly in their case, there's a need to translate, and localize, and customize things to fit their needs. And then I do think, as I was saying earlier, there's this big need for a quality assurance peer review component. And then we can get into the technology, and I won't talk about this much, but if you have questions about it, I'm happy to answer. And when you finally get to the end, look, you can use this stuff for campus-based courses, for blended-in hybrid courses, for fully online, for MOOCs. The actual use cases are completely across the board in all contexts.

And, as we are seeing with things like Z-Degrees, it can be a useful marketing tool, and a way to allow students to preview content even before they enroll. And can be double-used, not only by institutions but by industry, like TAACCCT resources are. I just wanted to share this as a kind of model of how collaboration can happen on a big scale.

And so if I come now to the TAACCCT program, I think there's, in my view been a two-part theory of change associated with the TAACCCT program. And theory part one was that to resolve the low economy and the high rates of unemployment that had been caused by outsourcing, and moving jobs overseas, we needed to see an initiative that was targeted at community colleges, not at research based universities, because they're the ones that are the most aligned with working adults. But I think the DOL did a few things really well. I do think it's very helpful for

them to ask you to partner with industry, and ensure that what you design works for industry. And so I think that's been a useful requirement in terms of collaboration, as was this requirement to work with the public workforce system to ensure that you're creating credentials that meet labor market needs. So I think those two requirements from a collaboration point of view-- it's hard work, but I think it results in something much better than it would if it was just on its own.

And then, the other theory of change was, we want evidence-based design, we want stacked and latticed credentials, we want it to be transferable and articulated, we want technology-enabled learning, strategic alignment and making use of previous funded TAACCCT resources. So, this is a pretty big theory of change. But then again, the \$2 billion is a pretty big program, so I think it's fair for them to make these requirements and provide an incentive to resolve unemployment and boost the economy. This is what I call the first part of the theory of change.

And the second part of the theory of change was a bit more radical, which was that the Department of Labor's essentially saying, in order for us to be an effective steward of public money, and to maximize impact and generate innovation, we're going to require the use of Creative Commons licenses in the creation and use of open education resources. This has never been done before at that kind of scale. And so it's interesting to look back now, at the stage we're at with TAACCCT and sort of say, well, how has that gone? How has the theory of change, both parts, evolved? And is it working? So we know that they invested a large amount of money across four rounds, 1,087 colleges, 256 grants, every state, mostly consortia-- lots of consortia within state, but also between states.

And then here, just at this point in time, this is what's happened so far. 1,100 new programs, they're expecting something like 2000, and already so far, 80,000 enrollments and 27,000 have already completed. And we're seeing really great clusters of curricula now in energy, advanced manufacturing, health, transportation, IT. And some of the strategic targets that DOL set around accelerating progress, and having better guidance from a career pathway point of view, better student support and retention, and better use of technology in online learning, I think your program sets the bar for that as being really an aspiration that you are meeting. So I do think that this part of the theory of change has worked out really well.

And then if we look at the part two theory of change, about stewarding dollars and maximizing impact, it's been interesting for us at Creative Commons to see what's been happening. So the TAACCCT program was really one of the first to require CC BY licensing, but now they've actually baked CC BY licensing into all DOL grant programs. And so, if a grant program from DOL comes out, and it doesn't want to have the OER CC BY requirement, they actually have to literally remove it from their particular grant program.

And it's already been spread to other programs, including the Ready To Work program from the Department of Labor, the US State Department is now requiring it and has started using it for their teacher scholarship program, and there's a big meeting happening this coming week that is really engaging all US government departments in exploring the adoption and use of this requirement in many of there grant programs across the board, including DOE. So that's been interesting, a lot more grant programs using this, and we've been spending quite a bit of time advocating and calling for policy advances. And then of course, the outputs that are being collected in Skills Commons that you all are producing are hugely expanding the commons.

We're seeing this tremendous growth of open education resources, mostly in the technical and vocational fields, but those were fields for which there weren't a lot of open education resources in the past. So it's a major contribution to the field of education, and there's a huge appetite and interest in what you're producing around the world. And then of course, not only is it the content part, but there's the movement part. And so, the fact that 700-plus community colleges are now engaged in this as a kind of regular part of their practice is a significant change. And the promise associated with the open education resources, of course, is not just that it will be used in the way that you are planning to use it, but that it has a reuse potential. And so already it's interesting to see that US aid is taking curriculum from the TAACCCT program, translating it to Spanish, and starting to use it in the US-Mexico economic development work that they are doing.

So, this was what I wanted to use as a kind of big picture, setting the stage of OER revisited. I know this is maybe a high level thing and you might be down, at really practical, nitty gritty questions about just how do I do this myself. But I wanted to kind of set that stage for really the whole time that we're together as a piece from my point of view that's how I see the TAACCCT program working, and some of the

changes that I am seeing happen around open education resources and the work you're doing.