



European Network for Catalysing  
Open Resources in Education

## Interview Series on ‘Credentialing and OER’

### Interview #1

### Yves Deville and Christine Jacqmot



**Yves Deville** is Professor of Computer Science in the Louvain School of Engineering at UCLouvain. For seven years, he has been a Senior Advisor to the President for the Digital University and Open Science.

**Christine Jacqmot** is Senior Project Manager for for the Digital University at UCLouvain. She is also a member of the Louvain Learning Lab, as coordinator and senior project manager.



**Together**, they led two strategic plans, developed by UCLouvain, related to open education and open science. The first, in 2015, resulted in the establishment of the UCLouvain OER repository, which now has some 700 resources and more than 2.000 download every month. The 2021-2025 second strategic plan<sup>1</sup> covers both open education (including OERs, courseware, MOOCs, distance learning and digital tools) and open science (including open access, research data management, open data and open source).

**Dai Griffiths** is a senior research at the Research Institute for Innovation & Technology in Education (UNIR iTED), Universidad Internacional de La Rioja (UNIR).



<sup>1</sup> The strategic plan is available here (in French) <https://hdl.handle.net/20.500.12279/819>



**Dai Griffiths.** I'm interested in the discourses that come together around OER, particularly around the representation of learning outcomes and the interoperability, and around badging and micro credentials. I'm hoping our conversation will shed some light on how these discourses relate to each other, and what the potentials are for that overlap.

**Christine Jacqmot.** Let's start by explaining how we see OERs and MOOCs, and how they can be organized with respect to assessment.

**Yves Deville.** We make a distinction between, on the one hand, the content, which is the slides, videos and so on, and on the other, the learning pathways, which are how these are organized by the teacher so that learner can achieve learning outcomes. Then we have interactions between learners, interactions with the teachers, and then the final part is assessment.

With this distinction we can define different forms of openness<sup>2</sup>. With OER it is just the content which is open, while with courseware it's content plus learning pathways. Then we can add openness of interactions, between the learners, through forums and so on, and interactions with the teachers. Access to assessment can also be open and free, and here we are in the territory online education, with or without credits. MOOCs are one way of opening this access to online learning. But that's a different meaning of openness, rather than making it possible to redistribute and re-use, it is the access which is open.

Using these distinctions, different integration models can be identified<sup>3</sup> between higher

education institutions, that we represent with a yellow university using components and a blue one that is sharing components.

The standard way is shown in this diagram (fig. 1) where the yellow university organizes everything, the assessment credits and so on.

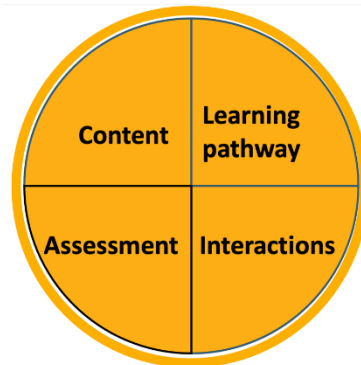


Figure 1

The next model (fig. 2) is that the yellow university organizes everything, but the teachers use resources from another university. The blue university shares resources, but the yellow university organises the interactions and assessment.

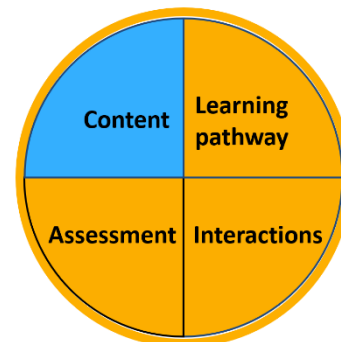


Figure 2

It's also possible to reuse learning pathways, of course, that's quite standard (fig. 3).

<sup>2</sup> See <http://hdl.handle.net/2078.1/230219>

<sup>3</sup> See <https://www.slideshare.net/witthaus/recognition-of-open-learning-and-the-unbundling-of-higher-education>

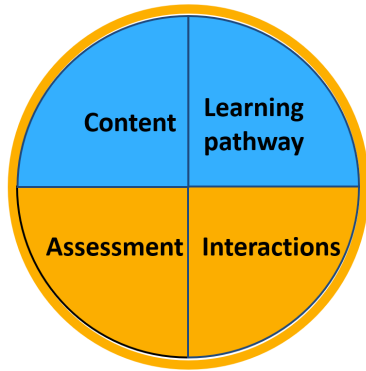


Figure 3

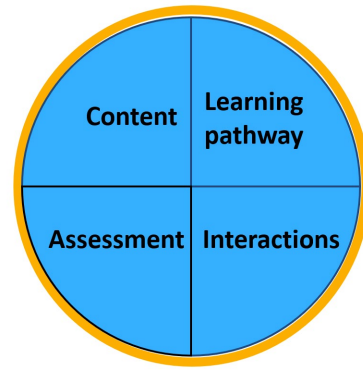


Figure 5

In the next model (fig. 4) there is a greater difference, because there is delegation from the yellow university to the blue university, to organize the interactions between the participants and with the teachers. But here the yellow University still organises the assessment, the validation of the credits.

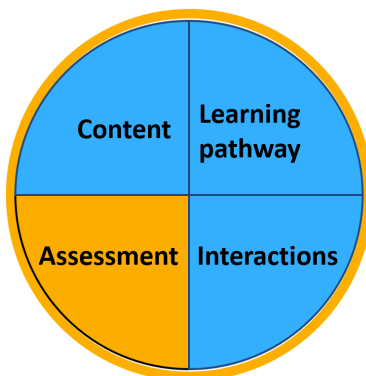


Figure 4

Sometimes there is complete delegation to the blue university for the assessment too, and the yellow university only recognizes that the assessment corresponds to the standards of the yellow university (fig. 5).

So, you see that with this model it's possible to describe different ways of delegating.

**Dai Griffiths.** Are there any other possible combinations of yellow and blue?

**Yves Deville.** Of course you can do other patterns, but they are not very natural or common. The patterns are always from the point of view of a yellow university, meaning that the student is registered in a yellow university. Even in the last model, you see that there is a yellow circle, so the yellow university is still validating the credits. But there are other possibilities. Someone who is working may just want a certificate in a new learning outcome, a credit, perhaps without registering at the yellow university. What I have described is from the point of view of an institution. As a university, how can we organize education certificates using open education.

We believe our discussion today is related to how we can achieve accreditation for self-learning within a curriculum. I think that you have in mind that OER should be the learning material.

**Dai Griffiths.** OER, clearly, is the content, but it could be bundled up with an assessment procedure. But perhaps they are more naturally disaggregated so that different people are doing the different things.

**Yves Deville.** We see that quizzes or exam questions could also be open content, but this is not the assessment part. The assessment part is that someone organizes the assessment and chooses the assessment, and then decides if the student succeeds or fails. So it's possible to have evaluation material within OER, but that's not the assessment protocol.

**Dai Griffiths.** *Maybe there is an ambiguity in English here, where "assessment" is applied to the evaluation materials as well as to the act of doing the assessing.*

**Christine Jacqmot.** I've been asking myself if it is possible to unbundle the learning material and the assessment, and if it would work. If we consider assessment to be the formal measurement of achieving an outcome, then on both sides, in the assessment and in the OER, we have to define the learning outcomes very precisely. We need a strong alignment between them, and that's difficult if they are unbundled. For a learner, it is not obvious how to find an OER that will prepare them to handle the learning outcomes in the right way, at the right level. Speaking of levels, we also need a rubric for each assessment, which is the grid that defines for each learning outcome what should be demonstrated by the learner or the trainer at each level. In the USA, and maybe in England, learning outcomes are usually well defined, but not often in French speaking or Latin education. Similarly, rubrics are very difficult to construct, and again we find some rubrics in the USA, but not so often in French speaking education. If we want to combine OER for self-learning learning with formal assessment organized elsewhere, then we need those connecting elements, the learning outcomes and rubrics. That is a difficulty.

**Dai Griffiths.** Is that difficulty so big that you would say "too much trouble. Let's not do it". Or is it a challenge that you think we should attempt to resolve?

**Christine Jacqmot.** It depends. When we work with teachers to help them construct an aligned curriculum, it is hard to express that, even they're doing everything and managing every aspect. So it's not obvious how to tackle the outcomes when you are conceiving and producing the OER and the assessment in different parts of the world, and if we can hope that those two will be aligned.

**Dai Griffiths.** *If I produce an OER and you use it in your course at some level, then you are doing that work of identifying the affordances of the OER and mapping them to your requirements. In some way, it must be happening. I understand you to be saying that we should recognize that as substantial intellectual work, it's not just happening by itself.*

**Christine Jacqmot.** Yes, exactly.

**Yves Deville.** I think one of the points that Christine is making is that when you produce a new OER, you should always publish the learning outcomes related to the OER. That's what we try to do, because if people use the OER, they have to know what the learning outcomes are. The question of evaluation is different, but once the learning outcomes are there, it's possible to start from them to build an assessment aligned with the declared learning outcomes of the OER.

I see two different approaches to this idea of self-learning. The first is that as a learner I find a nice OER or MOOC, with interesting learning outcomes. I read the text or follow the MOOC, I do the exercises, and now I just want to



valorise my efforts in my CV with an assessment. The second approach is that I need some competencies in a specific domain for my job, or my university program. The learning outcomes are given, and I need to find an appropriate OER, MOOC, or whatever, that will achieve them. That's much more complex because I need to check the relevance and adequacy of the learning outcomes of the OERs I find against my initial learning objectives. Then who will organize the assessment, and who will give the credits? The first approach is simpler in that you just have to find an OER. But as a university we will not give credits for an OER taken by a student, it must be part of a unit from my university. Maybe as a university we are more interested in the second challenge; to build real teaching and courses, reusing existing materials from outside, leading to a credit from my university.

**Dai Griffiths.** Yes, and that's the business of a university. But there may be other actors who might be interested in doing something different. I'm thinking of professional organizations and people like that.

**Christine Jacqmot.** Yes, but then would OER be sufficient in a professional context to acquire not only knowledge, but also skills? It's not so easy. Some of the skills, some of the procedural knowledge requires training, some hands-on activities, some feedback, some interaction with someone who is guiding me on the learning path or the practical way to do things. I don't know if OERs are sufficient for every situation, and probably they are not.

**Dai Griffiths.** No, I'm sure they're not, but then neither would any other equivalent learning resource. Some things require

interaction. But the imperatives of a university are different from the imperatives of a professional organisation. The university feels the need to organize a certain set of things to happen in order for a qualification to be achieved, this might be different for a professional organisation.

**Christine Jacqmot.** Exactly.

**Dai Griffiths.** Going back to the four quadrants and the different arrangements of them. Can you give me some examples of this being put into practice in different ways, perhaps starting perhaps with your own work?

**Yves Deville.** For the content part, we have an OER repository. Many of our teachers put material on it, and some items have been downloaded many times. We provide training for professors on how to reuse existing material from outside, because it's not only a matter of exporting knowledge, but also of importing knowledge. We can convince teachers to export what they are doing, but it's more difficult to convince them to import knowledge.

**Christine Jacqmot.** On our repository<sup>4</sup> you'll find, of course, atoms, just grains of knowledge, but also textbooks, including a very popular one on computer networking by one of our teachers, Olivier Bonaventure. It's a perfect example of a textbook used elsewhere by teachers and students. We have medical material on orthopaedic problems and care, and we know that a lot of students use those materials to prepare for difficult exams in other Belgian universities.

**Yves Deville.** That was for content. The second set of examples would be on courseware,

<sup>4</sup> <https://oer.uclouvain.be>





combining content and learning pathways. We have an ongoing initiative to develop an open Moodle platform for courseware, a standard LMS, so that people from outside university can follow classes using materials but with no interaction, just pathways and an organized set of content. That will be online in a few months.

The third category of examples relates to online education. We have conducted an experiment, called EVE<sup>5</sup>, in which about ten universities worldwide shared their own MOOCs for credit. That's the model where everything is delegated to another university. So a yellow student from a program in UCLouvain took a virtual class from Madrid, for example, by following a MOOC. The MOOC was evaluated by Madrid, and the credit was transferred to UCLouvain and added to the academic record of the student. We had some dozen students from different universities sharing these MOOCs. The difficulties were mostly administrative, because each university has its own regulations for registering students. Timing was very difficult to handle (start and end dates of a semester, date of exams). The learning was OK, but the administrative overhead was quite high.

**Dai Griffiths.** Is that still continuing?

**Yves Deville.** We would like to join a new agreement. The difficulty is that the existing MOOCs must fit a need in an existing program in my university, and people tend to say "Come on, they need to follow my class, not someone else's class". We have to convince faculties that opening their program to other universities is a good option. It's under

discussion, but the experiment will continue anyway, with many universities.

**Dai Griffiths.** In the UK, universities think of themselves as businesses, and the production of courses is part of their business model. They produce the course and then they leverage the course to get income. At the OE Global conference, I was very struck that the President of Nantes University gave a presentation which was completely the opposite. It was all about *service public de connaissance* and how we must be aware that we are using public resources and need to provide a public service. This is like another planet from the UK. So I can imagine that in the UK there could be an institutional resistance as well as an individual teacher resistance, saying, "Hang on, this is part of our unique selling point".

**Christine Jacqmot.** I agree with what you are saying. But I think that our colleagues do not understand that the real job of a teacher is being, as they say, the guide on the side. OERs make it possible to adopt a different pedagogy, to do the real job of a teacher, which is not to write a textbook, but to work with the students to make them reflect, to offer challenges, put them together to discuss, do research-based learning and so on.

**Dai Griffiths.** Yes, certainly. It's also the real job of the teacher to understand your learners in some depth. What is it that they're finding difficult here? What are their challenges? All that invisible work which doesn't appear anywhere in the job description.

**Yves Deville.** Even if you see a university as a business, being open is a better strategy. If you want to sell something, you have to show

<sup>5</sup> <https://vep-online.org>



that what you are selling has value, not just ask people to believe that it is good. You can show the content "Look here it is, isn't it nice", but students continually see materials on physics, or whatever, everywhere on the Web. Are we asking them to believe that the university of wherever is better because it has better materials? The added value is really what the teacher does with the learners, it's worth money. Otherwise it will be a Google University that will win. They will just provide materials and credits, all the data will be recorded, and everything will be "free". So as a university, we really have a challenge to demonstrate the added value of teachers' interactions with students.

**Dai Griffiths.** We've been talking about providing educational services to students who are going to university. Is the situation different if you're providing educational services to people who are in employment or to industrial to organizations? Which approaches to credentialing learning through OER are, or could be, the most effective in providing a service to work based learning and training as part of professional development?

**Yves Deville.** I'm convinced that the future of university is related to lifelong learning, so we cannot focus just on young adults doing a full degree, full time, on campus. We need to be open to other sectors of the public. OER materials which are available to people off-campus are a step in the right direction. With this it's possible to organize interactions, maybe not every week, but once every month, something like that. We have to build communities of learners and build assessment. Open content, and learning pathways, are a good first step, but it is not full online learning because interactions are essential to learning.

**Dai Griffiths.** Would you consider that learning pathways could be authored by professional organizations, or somebody other than the learning provider. Perhaps the car mechanics of Belgium, or the HR professional body, might decide what the objectives should be, and maybe even what the learning path should be, with somebody else doing the training.

**Yves Deville.** Yes, I think it's a nice way to do it. We are involved with some profession learning centres in IT in here in Belgium, and they provide a lot of learning to adults totally outside universities and higher education, mostly for professionals and unemployed professionals. They are developing an open learning lab, a learning platform with OER learning materials. What they could do, and I don't know how far they are with this, is define learning paths to specific objectives. If data analysts are needed, they can reuse and organize pathways to train them. It's very relevant that professional organization reuse OER to build pathways related to the needs of the market.

**Dai Griffiths.** Do we need, and do we have, a specification, a shared interoperable way of representing those pathways, so that what's used in one context can be used in another? Or is that simply not necessary?

**Christine Jacqmot.** Oh, it's necessary. As I said earlier, we need to be sure that things are aligned. We provide atoms but to form molecules in a coherent world we need to exchange information.

**Yves Deville.** Alignment is of course very important, but do we need an organized protocol to represent pathways? It's a different



question, and the answer is not obvious because it's too young. If we develop a protocol, that could kill many initiatives. Let these pathways be organized, and evolution will drive the organisation of pathways using nice protocols. We use Moodle, and that can represent pathways. Using SCORM you can zip everything and take it from one Moodle platform to another with a standard protocol representation. I think it's too early.

**Christine Jacqmot.** Open badges could be a way to organize things and help people to follow their own pathway, maybe an adaptive path through learning material to obtain new competencies.

**Dai Griffiths.** Are there any additional barriers to making all this work that we haven't talked about so far? What are the barriers to achieving those things which you would like to achieve in the quadrants of your model?

**Yves Deville.** In the quadrants for the content and the learning pathways the marginal cost of opening materials and pathways is zero. So if I put an OER or a courseware on some open Moodle platform, and get 1,000,000 downloads, there is zero marginal cost for me. But if I want to have organized interactions or assessment, there is a marginal cost. I cannot do that for free. This is a barrier, that once you want to organize interactions and assessment, you need a business model. Even if even the price is very low, you need a business model because as a university, we cannot just give certificates to the whole world. How should we organize these credits and these interactions in a sustainable model?

**Dai Griffiths.** Do you have any thoughts on trust in OER, apart from the other things that you've already mentioned?

**Yves Deville.** The trust should be in the credit system. I don't care where the learning outcomes have come from, I just want them to be there. Of course, it's nice to have an effective OER and learning pathway, but the trust must be in the assessment for the credit. So we are very explicit on a clear separation between the platform providing open material, and any system for assessment and credits. They should not be mixed, essentially because the marginal cost is zero for the openness and it's nonzero for credits. They should be organized in a totally different way. We want a learning pathway to be as open as possible, but as soon as we are dealing with assessment, then it cannot be fully open. It is just technically impossible.

**Dai Griffiths.** What should our priorities be to make it more of a reality that the that people's self-learning can be accredited?

**Yves Deville.** There are many, many, directions. The first is to understand the clear distinction between contents and pathways, and that open content and pathways have zero marginal cost, so we can all invest in that.

Secondly, it's important to have repositories that are close to the producers. We were able to convince people to contribute because it was a University repository. If we proposed putting OERs on some European repository, I don't know if we would get the same motivation. Clear visibility for individual contributions is important. On the other hand, it's very important to be seen by the whole world, which means that our repository must be also





integrated within larger repositories. So that's what we do, we go to MERLOT, to OER Commons, and so on. We need these international repositories, so that our OERs are easily harvested and accessible.

A third direction is to convince teachers not only to produce, but also to reuse content. If you publish something as OER, the reward is not just to have it as an OER. The reward is much greater if someone sends you a mail saying "Look, we are reusing your material in my class, and I like it".

Another direction is what we were discussing, how to introduce credits not only for OER but also for courseware, for MOOCs, for online learning and so on. How to make them trusted and with a sufficient level of quality, which is related to our discussion of alignment and so on, and it is really a difficult matter to have all these aligned.

**Dai Griffiths.** If we get this right, can we create a more sustainable system for supporting the ongoing network of OER?

**Yves Deville.** I'm not sure that credentials are the gold route to sustainability for OER. I think

it's important, but it's not essential. What is essential is to have OERs and open courseware available at zero marginal cost so everyone can find and reuse them. If we focus too much on credentials, then maybe it will reduce the impact of OER, because there is a marginal cost and somebody will have to do the job. And who will do it? It's not clear for me that the person who produced the OER will do the job to give credit to someone else, elsewhere in the world. My fear is that you will have sharks that will just exploit existing OERs and say "Look, just pay us €1000 and we will give you credits for this OER with a fake assessment". There's a risk of fake credentials.

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*Please cite as Deville, Y., Jacqmot, C., & Griffiths, D. (2022) Credentialing and OER, an Encore+ interview with Yves Deville and Christine Jacqmot. Available at: <http://research.unir.net/blog/encore-interviews-about-oer-credentials/>*

