



European Network for Catalysing
Open Resources in Education

Interview Series on ‘Credentialing and OER’

Interview #2

Phil Barker



***Phil Barker** worked in UK higher education for 20 years, including a number of projects technical approaches to releasing open educational resources. His main focus was on the reuse of digital learning resources through their dissemination, description, selection of suitable resources for particular contexts, and evaluation of their use. He now works internationally for Cetus LLP independent consultants, and a large amount of his work is around describing credentials, and addressing the question ‘How does credentialing of skills fit into the education-to-employment ecosystem?’*



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Dai Griffiths. There are a number of more or less independent discourses, including those of open education and open resources, competencies and the representation of curricular achievement, and the open badging and micro-credentials movement. There's an overlap between them, and nobody's quite sure how they interact, or what the opportunities are. What approaches and methodologies have you seen that bring them together?

Phil Barker. A lot of the work that I'm involved in at the moment is in the U.S. and it's focused around the education to employment ecosystem of "Learning to Earning", as they call it, that includes lifelong learning as well as K-12 to college. In that, there is a lot of effort going into joining up competencies and credentials to human re-sources and hiring practice. So it's very common, especially in the standardization bodies that I work with, for discussions about, for example, describing a learning resource to say, "Okay, if we want to describe the competencies, we know that this other group is doing it" and discussions around describing verifiable credentials to say, "Okay, we know that this other group is dealing with competencies." Certainly, in the U.S., there's a lot of awareness of how competence sits at the centre of that particular ecosystem and how various things touch on it.

Dai Griffiths. How do open education resources relate to what you've just said?

Phil Barker. Competencies and credentialing are deeply intertwined and intertwined with hiring processes. That is another discourse – competence-based hiring – which is obviously important for people who want to get a job at

the end of their education, or during their education. I must admit, I find the questions around credentialing learning from OERs a little strange. Textbooks have been around for... I don't know how many years, and I don't think anybody ever asked the question "How do you credential what somebody has learned from a text-book". Because it was taken that you would credential that learning in the same way that you credential any other form of learning, that an accredited organization performs some sort of assessment or appraisal of your skills and then issues a credential. I've never really thought that open educational resources would be involved in credentialing in any way differently from other learning resources.

Dai Griffiths. Your observation is clearly sensible, and I agree that there isn't a lot of practice that is specific to OER. Having said that, distance education and correspondence courses were often very close to assessing the book. Then there is Rob Koper's conception of idea of units of learning, incorporating assessment and delivered at scale, which entails packaging assessment with the open educational resource.

Phil Barker. With both of those, the issue that you get down to is whether the assessment and the credentialing is from an accredited organization. That's the key thing, and there are interesting things that we can talk about. For example, badges and micro-credentials and the W3C verifiable credentials, which are beginning to take over that area. They can be self-asserted. You can issue yourself with a badge that says, "I say that I know how to speak Spanish and you can test me on that if you want.", it's an assertion that you're making. Some of the work that I'm involved in



is looking at how those types of assertions can be built into CVs and resumes, which is where you'd often find them. So that's one intersection: how does micro credentialing and self-asserted credentials fit into what an individual has learned through their own use of whatever type of resource.

The other thing is that you mentioned correspondence courses as credentialing the book, but the value would come if the people offering the correspondence course were accredited too, and this is where the credential transparency work comes in. Who is it who says that the person who gave you this credential gives valuable credentials? How do you judge the value of a credential, no matter who's given it?

Dai Griffiths. It seems to me that the default approach is that the University of X buys textbooks and gets on with its teaching. Then it replaces some of those textbooks with open resources and it carries on doing everything in exactly the same way. I think that's fine, but it's not the vision of OER as a liberating approach that can transform the world's education system and make learning available to the everyone. That's to do with how organizations are set up and how credentials are issued. Given that we have new ways of delivering content, and new categories of content, which is owned by communities, how that can that help individuals accredit their learning and find employment?" Do you agree that there's the opportunity for these things to shift around a bit? How might they shift?

Phil Barker. I certainly agree there's an opportunity and, in certain circumstances, that's an opportunity to be welcomed. The key opportunity is around the disaggregation of

learning. If there's something that you're interested in, you don't have to do a four-year degree course in order to learn it. You can, in theory, just pick the bits that are interesting to you. There are a lot of challenges around that. My concerns are that if you don't already have a lot of knowledge about a domain, you don't actually know what it is that you need to learn in order to progress in that domain. Universities do a great job of aggregating lots of different things that need to be learned in order to master a subject, and there's a risk of losing the expertise that's required to build learning pathways. Also, I think there's a risk of exploitation when these things are done in industry, with "you will learn what you need to learn to fulfil your role within our organization", with no opportunity for personal growth. I've heard industry speakers talk about how they welcome the opportunity for "workforce development" rather than worker education. Unpackage that a little bit and it becomes quite frightening. But yes, in other circumstances, to be able to learn a particular skill that you're interested in, or that you feel that you lack, and which you need and to be accredited for: that can be very useful. That's an opportunity that comes from the availability of open education, the opening up of education as a whole, and the disaggregation of credentialing with micro-credentials. There is an opportunity to be able to put together individual small bits of learning and micro-credentials into pathways, or stack up credentials or whatever you want to call them, and maybe have them accredited as something bigger. I think for many people, it would be very advantageous if they could learn in a way that suited their particular circumstances at a time, and then say, "Look, I've done all of these things. Does that mean I



can go straight into year three of your university course,” for example, or whatever the scenario is.

Dai Griffiths. Is anybody making steps to provide such an integrated or open service, or some components of it?

Phil Barker. Of the organizations that I'm working with, Credential Engine are working on credential transparency as a whole. One of the things that we've been focused on recently is representing pathways through learning. This is a way of representing the way in which a program is aggregated from individual steps and components, and the requirements at each stage. Also, Instructure now own Concentric Sky as well as Canvas, and Concentric Sky's 'Badgr' is now going to be called 'Canvas Badges'. They talk a lot about stackable badges, and have their own way of building pathways along micro-credentials. Those are the two main examples that come to mind. I suppose the other one to mention in general -- it's included with those -- is that there's a W3C community group looking at how verifiable credentials can be used to represent educational qualifications, educational credentials, and that kind of feeds into the open badges and comprehensive learner record area.

Dai Griffiths. You mentioned “workforce development” as a worrying path to go down. The other pole from that would be community-based learning pathways defined by people who are not employers but who set out to facilitate people in gaining employment like a group of peers or a professional organization. Are those people involved in making 'open curricula'?

Phil Barker. Actually, you have reminded me of another thing that comes into this area, which is a Wikimedia education initiative using Wikidata, which is their linked data platform to represent national curricula. I think that is supported by the European Union and it's focusing on African curricula. They have created a data model which can represent the national curriculum, and they've done some work on how to represent one African country's curriculum in that data model. Their hope is that you'll be able to use that to tag OERs against national curricula. So it's not exactly individuals creating their own learning pathway, but it's a community effort that will allow individuals to see where learning resources map to a pathway that is perhaps the most important one for their country.

Dai Griffiths. Could you see such an approach being applied, say, in people who want to learn to become programmers, or translators, or that kind of professional development?

Phil Barker. Yes, if there's a competence framework that is accepted for a particular profession then that framework could be used to tag learning resources. It depends a lot on how the actual competence framework itself is structured. Progression models sometimes go in the competence frameworks, sometimes go in the learning opportunity, sometimes go in both and mismatch slightly. There is an opportunity there, and I think some of the work that Credential Engine has been doing could potentially assist that. So, if a particular profession said “Okay, in order to get to this level of our profession, you need to be able to do this, this, this, this, this” and if all of the individual competencies are arranged in such a way that they form a natural progression,



learn this and this before you attempt that, then that could be used as the organizing principle for sets of resources.

Dai Griffiths. What you are saying implies a separation of responsibilities between the people, communities or institutions who make open resources that people can consume, those who define learning paths and those who authenticate or verify the learning which has been achieved. I think you are suggesting that the most likely way of making progress is to respect those separate responsibilities and concentrate on how we could bring them together to work together. Is that a fair summary?

Phil Barker. I think it is, so long as you don't interpret the accredited assessment side of it as being a closed shop.

Dai Griffiths. Yes, so as you say, it could be the individual assertion that you made, or a peer assessment, or whatever.

Phil Barker. Yes.

Dai Griffiths. Looking down my list of questions, I think we've talked around the issues for repositories in implementing these approaches.

Phil Barker. Yes, I saw that, and I cringed a little bit at the idea of it being the repository that implemented it.

Dai Griffiths. That's fine, it's something to challenge. What are the barriers to change here? What are the barriers to moving this forward, in your experience and observation?

Phil Barker. One barrier is that creating these pathways is not easy. As I mentioned before, universities and other educational institutions

do a very good job, on the whole, of packaging up sets of learning opportunities or whatever, in such a way that they provide opportunities for individuals. Working out where to start and what order to learn things in is genuinely difficult.

Dai Griffiths. I would say that not only is it difficult, it's contextual.

Phil Barker. Yes, that's what I was trying to think how to express. You have a dilemma in a way that, ideally, you want individual pathways. You know, each person has their own aims and goals and therefore wants their own pathway. But if you've got 250 people and you're coming up with 250 different pathways, one for each person is going to be not scalable. You also have to worry a little about the person at the beginning of their career, saying, "Yes, I definitely want to do that", speaking as somebody who spent his first 10 years or so in academia as a physicist. How would I have known then what I needed to do for what I enjoy doing now? So, flexibility is required as well and a certain element of saying "Okay, you're doing this because it's something you don't know about. But we think you should see what opportunities it offers." That contextualization, the logic and difficulty of how you make a pedagogically appropriate pathway saying that 'resource A' teaches 'competency one', or whatever, is only the start of the problem, because all of the different resources that teach that competency will do so in different ways. The identification of the most appropriate way is a big issue as well. So it's not just a case of building the pathway. It's choosing the best resources to go on that pathway to use in



learning those competencies. I really don't underestimate the difficulty of any of this.

Dai Griffiths. In my opinion, at the core of learning design, as opposed to the learning sciences, is understanding the experiences of your group of learners, and providing the learning opportunities that they need. When you say the universities do a good job, that's the job that I would hope that they would do. What's our theory for these people that we take in and promise to look after? What do they need?

Phil Barker. There's a whole literature around evaluation of learning, and especially student appraisal of staff, which shows an inverse correlation between what students think is good teaching and what helps students learn. I'm sorry to say that some OER providers have pandered to that sort of misconception, the idea of star lecturers giving TED Talks and that sort of thing.

Dai Griffiths. So what did we say about the barriers?

Phil Barker. Oh, "Pedagogy is difficult."

Dai Griffiths. Are there also institutional barriers or organizational barriers or technological barriers, specification barriers?

Phil Barker. I guess the institutional barriers depend on the context you're seeing this happening in. There's a systematic barrier if hiring is based on how prestigious the University is that gave you a piece of paper after four years. That will be a barrier to any form of skills-based hiring. Some professions have moved away from that a long way already. I don't think a piece of paper alone will get you a job as a programmer anywhere.

You actually have to show that you can program. For other professions, that might be less true. There is a resistance. Universities are difficult things to change, and are frequently not in a position where they can change because they're often under-resourced and overstressed. So, yes, there's a mismatch there between the sort of organizations that are accredited to issue credentials and their ability to change.

I honestly don't see technology as being a barrier at the moment. We've said this so many times before: the technologies are there, what's required is the will and understanding to use them. "Will" is wrong, the ability, the capacity to use the technologies. That doesn't mean the technologies don't still need developing but they will be developed as soon as there is the capacity to use them.

Dai Griffiths. You're working on the specifications, so what's the problem that you're trying to resolve with them, in as much as it relates to our topic of our conversation?

Phil Barker. We've got these different domains, you know, of education, of representation of competencies needed for a profession, of human resources and hiring practice. Each of them is a domain in itself. They each have their own systems, and different systems in different countries. They each have their own prime concerns. They each have their own cultures. So they each use their own technical standards, and I'm trying to get interoperability between the different standards. We used to talk about a lot about using standards to get interoperability. Now I'm trying to get interoperability despite the different standards that are there. It's about



meta models rather than models now, about how you map what's represented in Standard A into what's represented in Standard B.

Dai Griffiths. Yes, without making a new standard somehow, because that's a kind of infinite regress. Are there any reports or papers about this?

Phil Barker. There's been quite a few reports in the U.S. that you might not be aware of around credentialing in skills-based hiring, the stuff that's coming from T3 and JFF and other organizations.

Dai Griffiths. The next question was practical solutions and mitigations to barriers, but what you were describing of your own work is such a practical solution and mitigation. Are there any other initiatives that you can think of that address some parts of this configuration?

Phil Barker. Yes, the organization that I just mentioned, the U.S Chamber of Commerce Foundation, T3 Network of Networks. It is an initiative that is deliberately bringing together different organizations active in different parts of the "learning to employment" ecosystem. There's a similar approach in Data Standards United, with different data standard organizations who have a commitment to working with each other. That's at the technical level. But the Chamber of Commerce Foundation, in particular, is pushing a lot on skills-based hiring, and that's mirrored with the idea of competence-based education.

Dai Griffiths. The next question, which we've of touched on, is "How can trust in credentialing learning through OERs best be developed?"

Phil Barker. A big difference between U.S. and Europe is the amount of regulation involved in becoming an education provider. It seems anyone can set up a university in the U.S, so they have a great need for what they call 'credential transparency', what you have to do in order to get this piece of paper, or electronic certificate, or whatever it is. The digital credentials standards that have come out of the U.S. have mirrored that need in a way that I think is more generally useful. It is useful to be able to point to evidence that you can supply for what you know. It's useful to be able to back up the credential you've got with information about who provided you with that credential, what assessments you have to sit, what courses you had to do... the transcript approach. But I remember with Credential Engine, we were talking to somebody about our approach to describing credentials and what we offered, and his response was, "You're trying to solve a problem that we don't have", because in Europe because we have regulations. We don't just let anybody set up an educational organization, education provider. So, I think that a certain amount of regulation is also useful in to protect individuals from being exploited.

Dai Griffiths. Given our conversation so far, what would be, in your mind, the agenda of things to do? I'm thinking of the whole sort of stack of education; learners, teachers, education providers, authorities, funders, vendors.

Phil Barker. As you know, over the last 30-odd years, there's been a movement away from describing teaching in terms of inputs, the syllabus approach, to describing learning in terms of outcomes. I think that's key, and you



need to really sort of, you know, double down on that wherever possible. Describe the competencies and be clear about how those competencies are assessed.

Dai Griffiths. I find myself in a lot of sympathy with what you're saying. But I do worry that the education will focus too much on what's easy to describe, and that some of the learning is not always definable in advance. You're going to do a course on Shakespeare. Do you know what you're going to learn from this in advance?

Phil Barker. Yes, that's right. I think it's the assessment side as well. I did say "focusing on outcomes", and the outcome isn't always defined at the beginning, so I think you can encompass that within what I'm saying. I've been using the term 'competence' a lot, but in the U.S. it is normally described in terms of KSA. Knowledge and Skills are the K and the S, and it's incredible how many different things get wrapped up under A. A lot of people call it "Knowledge Skills and Abilities" and then get very tied up trying to work out what the difference between a "Skill" and an "Ability" is. I haven't been able to trace in the literature when it first came up as KSA, but I'm pretty sure that the A was things like, "Attributes and attitudes". That "A" gives you a route out of the simple skill-based approach, what can you do and what do you know, into what sort of person are you.

Dai Griffiths. Yes. So "you will read this book and you will be changed and there will be a peer assessment to see that you can explain how you've been changed".

Phil Barker. Or a self-assessment... I was a certified member of the Association for Learning Technology for a while, and their approach is that you put together a portfolio which includes reflections on what you've learned through your practice. Assessment doesn't have to be against predefined objectives. It doesn't have to be external. It can be a self-assessment of what have you learned through this experience. Thanks for picking up on that, it's very important that it gets included in education.

Dai Griffiths. The last question is about sustainability and whether the kind of approaches that we've been talking about could help maintain the availability of open educational resources and repositories.

Phil Barker. Possibly. But gosh, I think that's the wrong thing to be thinking about right now, I think. OERs will remain for as long as they're useful, and however they're useful. If you want to talk about the contribution of this approach to sustainability, then think about what's happened over the last two years and how we need open and flexible approaches to teaching and learning in order to get resilient education systems. Sustainability of OERs is the smallest thing that matters within that question.

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