Q: I’m Kevin Donovan and I’m here with Professor Diana Laurillard who’s Chair of Learning with Digital Technologies at the London Knowledge Lab. So that’s probably a good place to start, Diana: can you tell us what the London Knowledge Lab is?

A: It’s a collaboration between Birkbeck College and the Institute of Education, set up about five years ago as a way of having an interdisciplinary research outfit that brings together computer scientists and educationalists, to work together on technology-enhanced learning. In its earliest inception I think then there was inevitably a kind of sticking with what you know, and it was quite difficult in the early years to grow that interdisciplinarity, but that’s really taken off in the last two or three years. We’ve got lots of genuinely collaborative, genuinely interdisciplinary projects now, which is quite exciting because you learn a lot from working with a different kind of mindset, different methodology; so it’s an exiting place to be.

Q: And in fact in your inaugural lecture you cited other colleagues’ works...

A: Yes...

Q: ... as examples of that?

A: Yes, because there are several examples round the lab now of trying to bring to bear a computational way of thinking, with what we are trying to do in pedagogy and learning. So, it is bringing a new kind of discipline to the representation of pedagogy if you like; but it’s also introducing the computer scientists to a way of thinking about what people really need when they’re using these machines to learn, so it should be productive for both sides. (Sound of ringing).

Q: I mentioned the inaugural lecture because it’s particularly important to ALT members because probably by the time colleagues hear this they will have seen it and read it because ALT, the Association for Learning Technology, is buying lots of copies...

A: Yes that’s right.

Q: ... and distributing them to members because people saw the key messages of the lecture as extremely important, and the PowerPoint slides as better than the average (laughter)! One thing that struck me was a slide that said, “What it takes to learn does not change”...

A: Oh yes.

Q: ...could you just say something about that? You’re here in a state of the art knowledge lab and yet some things never change?

A: Yes, well, you’ve got to have something to hang on to. There’s got to be an anchor in all this somewhere and I think that is an important issue. If you look at what happened in learning theory over the last century, I mean really almost before the beginning of the last century, John Dewey in the States was responsible for thinking about education in a different way than it had been thought about till then, as the transmission of knowledge. And the new kind of thinking about learning goes right back to him really, of trying to think instead about how you help the learner to understand and engage with these difficult and complex ideas.
We can learn about the world through our senses and through our experience, through social engagement and cultural phenomena and so on, but with education you are thinking about concepts, high level concepts, which are not natural parts of the world; these are inventions of man and so they’re constructed ideas and you’ve got to somehow find your way of experiencing them in a way that enables you to learn these difficult things that Newton or Freud or whoever came up with. So it’s not like normal learning and neither can you just tell people - because it’s too hard, you can’t get a grip on it. So Dewey began with the idea of experiential learning, of trying to engage people in thinking about these ideas in a different way, thinking about what they mean for practice and so it’s not just at the theoretical level. And over the last century there were ideas from Piaget and Vygotsky and Bruner and Pask, and so on, and all the way through, no matter who your guru is, you can find somebody who’s saying something similar to that, that what it takes to learn is more than just being told. You’ve got to engage with it, you’ve got to have feedback, you’ve got to be trying to make it your own, you’ve got to be working with it, practising it, applying it in real life, getting feedback on what you do, arguing about it with others, negotiating ideas in all of those things; and I don’t think that changes, and no matter how good the technology is, what it takes to learn a difficult idea is much the same kind of thing, of grappling with it, reflecting on it, arguing about it, trying to apply it, trying again to do it better. That’s what learning means. So what we use the technology for is to find ways of making that better and easier. But it doesn’t change the cognitive task of what you have to do, not that much.

Q: So why is there not a seamless development of the use of technology in teaching and learning? What are the blockages? Because if one assumes, and one knows, by experience, it can help to do all those things, why aren’t teachers seizing it with alacrity and learners using it with greater enthusiasm? Or are they?

A: That’s a very good question and one I’ve spent the last 30 years puzzling about, because interactive technologies are the extraordinary thing that education needs, they’re adapted so well for what we need to do and it’s more than just the printing press or the invention of writing or something like that, which teachers of the past presumably seized upon as being wonderful, because these technologies do everything that you could possibly want to do. Teaching technologies have, however, always worked to the principle that what you need to do in education is transmit knowledge; so the book, the lecture, the classroom, the essay, it’s all about the transmission of what we know to you and you then feed it back to me and I say it’s right or wrong. So the technologies of teaching have always been about that model of teaching, but the theories of learning say, “No, that’s not right, that won’t do; you’ve got to get the learner being constructive and active and collaborative and social and so on”. But the technologies which have been developed for education haven’t particularly orientated themselves towards that and what education is doing with respect to technology is always using other people’s technologies. We use the technology of the business world, of the leisure market, of Amazon, of Microsoft Word and all the rest of it, and we try to make the best of them. But there hasn’t yet been anybody developing a technology that really orients itself to what learners need in order to learn. They’ve done something of what teachers need in order to transmit, but teachers know very well that that is not what they’re doing actually, when they are teaching. So that’s only one explanation but that’s part of it.

Q: But does that imply, for example, that not just young people but noticeably young people who will use technologies like mobile technology or web 2.0 technologies, does it mean that teachers should be more aware of that kind of development and using it and exploiting it
because it does seem to open up learning and experience in ways that perhaps more traditional hide-bound technology doesn’t?

A: Well, I think teachers need to be aware of it in almost exactly the same way as they are aware of coffee bars (laughter), yes! You have to acknowledge that the coffee bar is an important part of university life and indeed of one’s intellectual development and so on; it’s absolutely crucial that you get the opportunity to kind of play with intellectual ideas through social exchange. But, to what extent would you bring the coffee bar into your formal education? I am not sure that you would or that you should. There needs to be that space for the informal and for the personal and the social, which is… allows you to make your own bridge between what you are studying and what your life is; and I think it’s okay to leave that up to learners actually, and that the teacher shouldn’t therefore invade the coffee bar but should rather be aware that learners have a rich life and that they can take themselves beyond what the teacher is offering. So I don’t think therefore that we should be creating the Facebook environment for every course… I think we use social networking technologies for the equivalent, not of the coffee bar, but of the seminar or of the student-led seminar or of the, I don’t know, the class debate or something like that, you know. We are trying to bring to the experience of learning something which is akin to discovering knowledge and getting excited by ideas and so on, and that’s partly a social thing. So, yes, by all means use social networking technologies but use them in a way that’s driven by what the pedagogy’s doing, don’t just use it for the sake of it. The same applies to blogs and wikis; you know, nobody ever said that what students really need is a personal journal that they can share with the rest of the world. That was never on the agenda (laughter)! How come that’s suddenly become so important? Well yes, I can see how you can adapt it and make some use of it but I think it’s far more important to think, “What are we trying to do that we can’t yet do?”, with supporting our learners and gear up the technology to doing that for us.

Q: And are there tensions there between the pedagogy and expectation, and the social and political pressures that always apply to teaching? For example, teachers became very excited about the notion of blended learning because they could see they could do things that they always did well but introduce technology at certain points ... and now it’s almost as if unless the classes, the courses are awash with technology it doesn’t count; and now we have the idea, which in some ways is a very old-fashioned idea, of personalised learning, which seems by some readings to fragment the learning and go against the seminar or the collective experience?

A: Well, I think blended learning is what we’re after really. You find the appropriate technologies for what you’re trying to do whether it’s a lecture theatre or a book or a wiki or a podcast or whatever it is, and the richness of digital technologies offers us a lot more variety and opportunity than we had with traditional, conventional technologies and I think you find the right blend - so I think blended learning will never go away ... and for some courses, some contexts a blend which is ninety per cent conventional and 10 per cent digital is probably right and you’d get the reverse for other kinds of course. So it’s entirely up to the particular context what kind of blend you have and we’ve just got to get practised at being able to find the right blend for the right course and context. Personalised learning I think is different. I don’t think one should necessarily align it with individualised learning where it’s the learner on their own because you could have personalised learning in a social group context. Personalised means it’s adapted to the individual’s needs, so I could just about imagine a social site… I suppose Facebook is like that actually, it’s quite personalised isn’t it? So it adapts to your needs, you have control over what you do with it. I think it’s
important in lots of areas of education to be able to personalise to the learner’s needs, whether it’s in terms of case study illustrations of a theoretical idea and you want to be able to localise it perhaps rather than personalise it sometimes, or if you’re on a course with ten students, and let’s say it’s a professional learning course and some of them are in education and some are in medicine and some are in law, then you personalise the case which is illustrating your concept by having a medicine or a law one and so on. So that’s that aspect of personalisation you can do with technology. Other kinds are things like making it self-paced and so you build the choice of the next task or the difficulty of the next task on the basis of what the learner’s performance has been up to now. So, that’s something I am interested in now from the point of view of helping learners with disabilities learn the basic concepts of number or of learning how to read or write and so on. So personalisation, adaptive aspects of technology are terribly important for that; that’s precisely what makes it valuable and does what the mainstream classroom can’t possibly do for those learners. So personalisation I think is fine but don’t think that that means the learner in isolation, I don’t think it has to.

Q: And it also assumes, whatever level of technology access, it assumes access to technology?

A: It does do that, yeah.

Q: Are we in danger of creating several worlds in education where the technology-rich environment offers something to students, to learners, which will never be available to the mass of the population or are we overcoming those barriers?

A: Well, I think in this country we certainly are because when I was in the Department (for Education and Skills) some years ago, the average ownership of computers at home for school children was about 75 per cent and that of course varied a lot by location but it must be a lot better than that by now. But that has always been true in education: when books first came in they were extremely divisive. The same is going to be true of digital technologies. We had this sort of problem at the Open University when it first stared introducing computers in their courses, because this was meant to be open, you know, and the penetration of computers into the home was very low in those days. So there was a three-pronged strategy of building on what some people had anyway, of having Government intervention to provide for some, and persuading the others that this was a good idea to move into; so you got a sort of three-pronged approach, which gradually grew the student market and the students themselves, being the kinds of people they were, were interested, so it pushed it along a little bit faster than it would otherwise have done naturally - but as we get more towards much greater penetration into the domestic market then it becomes possible to close the gap through public funding, as that gap gets smaller and smaller ... and I think that’s what we have to do. In schools where teachers are anxious about some of the class not having access at home, well, provide access at school: throw the school open in the weekends and the evenings and at half-term, that’s what the leading, most active schools do. You find ways round it until such time as the rest of the population has caught up. You can’t not do it.

Q: You mentioned Government intervention in several points then. Obviously the Government has its E-strategy now, Harnessing Technology, and you were hugely responsible for the development of that strategy and the consultations around it. Can you say something about that? About why technology is so important to governments, not just this Government and whether your hopes and expectations for Harnessing Technology through all
its phases and developments have been realised, and whether you’re optimistic about the future?

A: Nowhere near realised. Yes, I’m optimistic because you have to be in this game. The strategy consultation process, we calculated, hit some 15,000 people altogether, making some kind of input to that either through their organisation or directly ... and there was a remarkable consensus over, “We really need to be doing something about this”, and “Moreover this is the kind of thing we need to be doing”, and I don’t think it was really that controversial. We ended up with six priority areas, which ... formulated the idea that everybody’s got to have access to this; you’ve got to take care of how this content is going to be generated and regenerated; you’ve got to support the teachers; you’ve got to support the leaders; and you’ve got to make sure the technology joins up. Those are the six basic things, and all of those have pretty much been carried forward into the new version, which Becta has just published. But it’s going so slowly! That’s what’s so unsettling. And what was core to that strategy when we developed it in 2005 was that it was unified across all the education sectors, because that’s what learners are: they move from school to college to work to university and then back again - they move around through the whole system. So the technology ought to be capable of joining up all those different parts of the sector and there’s no reason why some beautiful piece of language teaching shouldn’t be used at primary level, secondary level, post-16, lifelong learning; you’ve still got to do the same basic stuff in the language learning. So I think there are lots of arguments for making sure that you join up across the sectors and now I’m afraid we’ve gone back to that sort of bifurcation, especially as that’s been reified over the way the Department has been split (DCFS/DIUS), so that doesn’t help. That makes me anxious, I won’t say pessimistic, because I think people always find a way round it and will find a way forward, but it’s just that it’s taking so long! It seems such a shame because we’re missing such an opportunity to help all those people who are failing to learn, and especially people with learning disabilities, that you just feel that we should by now have been able to help those ... if you saw that Channel 4 programme last night called, “Can’t Read, Can’t Write”, incredible programme about adults in their middle age who were denied the opportunity to learn to read and write because people didn’t understand what they needed. You figure out what it is they need; they need a few weeks and they take off, they’re fantastic. What a tragedy that that hasn’t been accessible to so many people. And you know, 30 per cent of people in prison are dyslexic. It’s probably why half of them are there! Pedagogy that is discoverable - how you help those individuals - if you could enshrine that in software that is then accessible in every single primary school in the country, wouldn’t that help a bit? Why haven’t we got that? I don’t know, I don’t understand why.

Q: Is it partly because the political enthusiasm has waned?

A: Well, that’s a tricky question to answer because I think we certainly had tremendous political enthusiasm when Charles Clarke was the Secretary of State. He understood what the technology can do and was really behind it, and the first year in the Department was terrific for building the strategy from that point of view. If you don’t have a Secretary of State who’s pushing it in the way that he did, then other things become more important. The tragedy is that those other things which are more important would also be served by a decent leader in his strategy and real effort in that area, so I think it’s not necessarily political will, it’s rather lack of understanding at senior levels within the educational establishment of what the technology could be doing. And people say, “Well why hasn’t it done it then? You know you’ve had all this technology all this time, why hasn’t it changed things?” And the truth is
that it’s actually very hard to understand what it should do and how you make it work. It can’t be done overnight. It’s like saying in 1910, “Well, you’ve got this combustion engine”, or whenever it was it was invented, “How come it hasn’t changed the world already? How come we haven’t got motorways and so on?” You can’t do it that fast, it takes human beings a long time to understand a new technology and this is many new technologies all wrapped into one. So it doesn’t happen overnight and it needs attention and it needs time and practice and innovation and experimentation, and it’s never really had very much.

Q: But in your reading, which I guess would be shared by ALT members at large, the technology makes sense with the pedagogy, makes sense with the social needs, etcetera, etcetera, and it was almost as if for a while we, and still now amongst enthusiastic people can see, well, this is the answer this is 42, the answer to life, the universe and everything. So it could be depressing but is there another key to unlock it all with? If you were to say to government now or to education and training at large, “This is the one thing you have to do to make it all work”. What would that be? Would it be staff training or investment or leadership or...

A: Well, that’s

Q: ... which of your six areas?

A: It’s a nice question because it’s the question I had to ask myself when I left the department and try to decide what I was going to do next ... and of those six areas, whenever in the Department they said, “Well what’s the one that’s the most important?” I would say, “There isn’t one, they’re all important.”, and I could defend that line for about three minutes and then got forced into a corner and have to choose one, and the one I would always choose was leadership, because it’s the leadership that does define the drivers and the incentives and everything else in the way that our education system works. And it’s driven by assessment and inspection and funding flows and curriculum and so on. And it’s the leadership that’s responsible for all that: if you want to change the way in which education operates, then change the assessment system and it all follows, it’s that kind of thing. However nothing I can do on leaving the Department would change leadership; you can’t do research as it’s not a research issue, it’s a political issue really and management issue, that operates in different ways. So the next one down the list, for me, is the teaching workforce itself. They’re the ones who are working with learners, they’re the ones in charge of pedagogy, if you like, who are deciding what happens with learners every hour of every day, so they are the next group to go for and I felt that they’ve never been given the time or attention or care in the research community that they need. Although there’s a lot of talk about research on learning, there’s no talk about research on how you help teachers help learners. So that’s the space that I moved into and we now have a new research project through TLRP to do some research on creating a learning design support environment for teachers. So this will be, unless you count VLEs, the first time that a technology has been developed for the teacher. VLEs are really for administration and making materials available to students. They have their place and they do something important but it’s not about how you transform the way your learner learns. But that’s what we’re now trying to do.

Q: Which in some ways is refreshingly old-fashioned because it goes back to fairly, still valid I would say, definitions of educational technology. Geoffrey Hubbard at CET used to define it as a systematic approach to teaching and learning.
A: Yeah, I’d go with that. I think. I remember when I first came into the field, educational technology was being defined. And it was defined in much that sort of way. I think it was Norman McKenzie at Sussex was defining it as a systematic approach to what it takes to learn and teach. Which I think is exactly what it is.

Q: And you’ve been saying it for a long time. Your 1993 book, (laughter) Rethinking University Teaching, has obviously also been fairly influential on the sector - and the sectors, because it’s not just universities who read it and follow it. Is that something else that makes you feel optimistic? Pessimistic? Have we still got a long way to go in university, college, learning, teaching?”

A: Oh, an enormously long way to go! Yes! And especially when you think that universities have actually had this technology for decades now. I mean, we had ubiquitous technology and all the communication technologies decades ago and it hasn’t really transformed higher education. So I think that shows you that the access issue, that we will just make the technology available and everything else follows, is false, that’s a fallacy. It’s got to be a different way of thinking about what teaching and learning means and how technology can support that; and, yes, in my darker moments I’m pretty pessimistic because it seems to be taking so long, and when I look at how Rethinking University Teaching has been used, the people who’ve used it best really are PhD students who’ve taken it and tried to apply it and then end up critiquing it, which is what it needs. It’s never really been properly critiqued in the literature; and very often it’s misunderstood because although I’ve described a conversational framework as a way of bringing together all the things that we want to say - all those things I said earlier about Dewey and Piaget and Vygotsky and so on - it’s trying to say these are all the things that we know about what it takes to support the learning process, now let’s see the extent to which the technology does that. And calling it a conversational framework I felt underscored the fact that this is a dialogue that has to happen between teacher and student, between student and other students. The teacher has also got to listen, there’s that aspect to it, but it’s also a dialogue between the theoretical and the practical and a dialogue between the student and what they’re learning and the world that they’re trying to model and reflect and understand; and it’s sometimes been misinterpreted as basically being about a conversation between teacher and student, which is not what it’s meant to be. I suppose when you see things misinterpreted you always get pessimistic but people are still trying to work with it and I am now trying to write the third edition, which is interesting because the technology’s changed so much in the last eight years, although the underlying theory really hasn’t changed all that much I don’t think ...

Q: How people learn is...

A: ... how people learn, you know, it still takes that hard work.

Q: Which brings us finally to the Association for Learning Technology. That’s its reason for existence, it’s about learning technology and its membership is broader and broader, lifelong learning as well as HE. Any messages for ALT and its members in the crusade?

A: Yeah, well, that’s exactly what it is, it is indeed a kind of, well, mission I’d call it not crusade, that has more connotations. It’s certainly a mission, and there, I think the approach that ALT’s been taking in the last few years is absolutely superb because it is bringing more and more people into its remit. And from everything I was saying earlier about it being something that has to reach across all the sectors, that’s exactly the way that ALT’s going.
The way it’s expanded, the kind of the leading role that it takes through, I think, Seb Schmoller understanding what it needs to do with respect to policy, to support the development of policy, and to reflect the way that policy is going and then help it go better, - he understands very well, how to make those sorts of connections and that’s terribly important for the way an organisation which is meant to be an influencer, has to work. That’s extremely important, you’ve got to understand how you influence both your community and the community of learning technologists and their impact within their institutions, it’s one way you face. You’ve also got to face the other way towards the leadership group in the educational establishment, because they hold all the cards, you know, they are the ones that actually are holding the purse strings and the strings that all the rest of us dance to. That’s what will enable technology to be used well or badly, according to how those aspects of education orient towards making use of the technology, or just use it badly, essentially to do what you’ve always done. So ALT plays a crucial role.

Q: Okay, Diana, thank you ever so much.

A: Thank you!

(End of interview)