Media Lab Europe
International Symposium
19 May 2004
Dublin

ICT and Education:
INCREMENTAL PROGRESS OR FUNDAMENTAL CHANGE?

Discussion group: **LEARNING**
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BRENDAN TANGNEY

All right, everybody, fellow revolutionaries, my name is Brendan Tangney and I'm from the Centre for Research in IT and Education in Trinity College just down the road, and I'm not sure if I'm the recorder or the self-appointed dictator or what went on in the group I was in; so I think I'd strongly encourage those people who were in the group to vehemently disagree with the things I'm saying here. I'm not claiming it's an accurate reflection of what they said. It's an accurate reflection of what I want to say to you, which is not the same thing.

So at the conference on Monday I stood up and asked the question why if we are having a conference on technology and learning and shaping it, what's it going to look like, why are we still predominantly working with pen and paper and giving people these big bags with loads of stuff in it which most of us have thrown away? I very much believe in practising what we preach. If we are serious about using technology to shape teaching and learning then we as a profession should actively try and use technology to shape what we do – that's where I'm coming from.

So in the spirit of that, I did this mind map of what we were talking about and I did it using this Tablet PC and handwriting recognition. I was going to go in there and correct all the mistakes that it had done but then I said that wouldn't be right; because what I actually want to show you is this is the state of handwriting recognition at the

moment, this is actually what the technology can do, so the spelling mistakes and everything, I make no apology for. This is what the technology can do in the meeting we were having over there, this is what we had.

So the people who were in the group over here were – and I'm paraphrasing what they said: John (Gage) who's from Sun and he's interested in self-organising and changing the world via maps on the net; there was Claire (Turner) from not really MLE – Clare is from the The Public in Middlesborough – West Bromwich – see, my memory is great. There was Karen (Martin) who is from here and working in Carol's group; there was Leah (Hilliard) from the National College of Art and Design here in Dublin; Alberto (Colorni) who runs third level programmes in Italy; Michael John (Gorman) from Archimedia here in Dublin who works with children, he's interested in learning spaces; Elise Leclerc from the Clubhouse who didn't bring her pistol with her and you can ask her about the pistol later, right? There was Odile (de Chalendar) from the French Ministry who has left – no, she hasn't left yet, she is about to leave, right? And then there is me from Trinity College who is a fan of Cardinal Newman and the idea of a liberal education. So that's where I'm coming from.

So what the group decided to look at was, with a bit of encouragement from me, was a number of fundamental questions. So Seymour posed us with a number of questions at the start and then I audaciously suggested that the questions weren't fundamental enough. So the questions that we looked at were, to get back to first principles, what is the purpose of education and learning, at the very base level, what's the purpose of it, because if we don't have a common agreement about what we are trying to do with learning and education then questions about schools and technology are not anchored in any firm framework.

So that led into an interesting discussion as to whether education and learning were the same thing, right? So the objection was raised that education and learning are very different, right? So what I then did was I looked up the Oxford English Dictionary which I have on my lap-top and it came up with two definitions of education. One of them was that it is the process of nurturing and caring and a later definition was to do with systematic instruction. I think one of the problems in the

debate that we have about technology and learning and technology and education is that we don't really define our terms precisely enough.

So if we talk about education as being the business of systematic instruction, then you get one type of argument come from it, but if you talk of education as being the process of nurturing and rearing, that gives a much larger view of what we mean by it. I think for the argument to go forward we need to spend a little bit of time thinking about that. But assuming that there is a purpose for education, then we can agree on a definition for it. The ideas that came up were – one definition offered was that it was to enable people to fully participate in the community and that led to questions of socialisation, which is a key goal in education. One of the fundamental skills that education should give people – and one of them is obviously learning how to learn – there is this whole rhetoric about information age skills and what are they, one of which is certainly to become a worker.

So then, if we buy into this one over there, the whole thing becomes driven by an economic agenda, which I don't think is very appropriate but is something that is certainly happening in this country, the way the Government ministry is funding the education system, particularly third level. It is very much at the basis of producing workers to meet short terms needs of the economy and then information technology will be deployed to meet that agenda. I met a very interesting question about what it means to be a citizen, right, and Seymour came along and said we need examinations on what it means to be a citizen, this is going back to socialisation and community.

Then the other argument that I made here, and I also made it in the conference before, is that the fundamental thing that has happened in education over the past 500 years has not been information technology but it has been the demise of Christianity. And I meant that from a purely engineering point of view, that for the past 100 number of years, in the west, Christianity has provided two things: It has provided an ethical framework that society agrees on as the basis of its ethics, right – and we notice that there are other parts of the world which have different ethical systems and there is a certain clash going on between those at the moment. The second thing it did was it provided a common frame of reference which everybody worked from. It didn't

matter whether you agreed with it or disagreed with it, there was a common denominator which everybody shared.

I would argue that that is now very much in the decline, so it means that questions like what does it mean to be a citizen are much more problematic than they ever were before, and we need to get these right before we can progress forward. What is the set of values that we want to instil into people? Do we want to instil into them what we get from the mass media? Do we really want people to learn their history from Hollywood movies? Or as was suggested at a conference on another occasion, from Barbie Dolls.? I think that's a question we need to look at.

So another aspect of education would be to fully realise one's own potential, whatever that means. So if we can agree on what we mean by education it leads us on to saying what is the role of technology in education and what are the roles of schools in education? And we didn't get to come to a firm answer to any of those questions but I think they do follow on from it and might give the framework for an argument. Things we did discuss up here which go to answer some of the questions before is, learning has always taken place outside the school, we all agree with that. These days we certainly need lifelong learning, there certainly is a need for cross-generational learning.

We agreed that motivation and sense of ownership are crucial in any learning process. We agreed that this notion that one size fits all isn't really appropriate. We – somebody made the remark that learning has changed because of technology. I took objection to this because I said that statements like this are actually incorrect, that the way we learn hasn't changed since the time of Socrates and Plato, education is about drawing information out of people and getting them to make that last leap themselves and constructionism and various other approaches are very good at helping people do that. But the – I don't believe people learn differently now than they did 5,000 years ago.

Now, the styles of learning and the tools of learning and what is available to us have completely changed, and this may allow us to learn different things, to learn in a

different way. And this is Seymour's argument, but that the way we learn hasn't changed and the argument I was making is that when you make statements like this and you give them to politicians, "Technology has changed the way we learn, therefore let's give people all access to the Web or let's give them 26 megabytes of broadband", they are statements that can be used to turn against us and what we are trying to do, if they are taken at a very superficial level. And we finished up our conversation talking about the role of assessment. In the formal education system, assessment is the tail which wags the educational dog, and most educational systems are in a lot of senses dictated by what assessment technique we use.

Then we had a conversation about different forms of assessment, formative assessment, continuous assessment, summative assessment, and there was a question of why do we assess at all in the first place. So lots of things to talk about and you are all gone very quiet.

COMMENT FROM AUDIENCE

You used the language of values or things we want to instil into people. That means – to me it comes across as if there is an outside force creating change to this thing. To me it actually implies that something is being imposed from the outside in – as in fact maybe learning is something that should come from the inside out, and rather than having things instilled into people they should construct them themselves.

BRENDAN TANGNEY

I'll do all these really quickly, right? The first argument I would use is that education is about *educo,* to lead out, and that education is not, as William Butler Yeats said, about the filling of a pail, it's about the lighting of a fire. I completely agree with you, the educational process is about drawing out from people and getting them to make that last leap themselves and your LEGO and various other things that people use, are just wonderful at it, that's the first point. The second point is that when it comes to instilling, maybe where I did mention it was in the question of citizenship, and I think that there is this question of nurturing and rearing, that citizenship means

that you've got a community of people who buy into a certain shared set of values and that may need to be instilled into them or brought out of them, and that maybe is where I used the word "instil". Does anyone from my group want to object, disobject, clarify, elaborate, shoot me? Yes, Carol?

QUESTION FROM AUDIENCE

Did anyone say what "to learn" was?

BRENDAN TANGNEY

Did any of us say what "to learn" means? It was bandied about the table, a number of people mentioned it. No volunteers for a definition of learning, to learn?

RESPONSE FROM AUDIENCE

We were talking about how to learn to question ideas that are offered to you and to think for yourself about whether you agree with them, disagree with them.

RESPONSE FROM AUDIENCE

And maybe not just as you were saying instilling – well, maybe actually not instilling knowledge but being able to teach how to be autonomous for the students or – and for them to actually be able to get their own knowledge and find their resources, I think.

RESPONSE FROM AUDIENCE

I think it's the "Give a man a fish, feed him for a day, teach him how to fish, you feed him for life", that's my interpreting of it, that you equip a person with the skills that

will allow them to go forth into this knowledge society of ours and be able to thrive and grow and pick up what they need and what they don't need.

RESPONSE FROM AUDIENCE

Yes, and I think we spoke a lot about assessment and the necessity or not of assessment and I think if we want to help people to learn we should help them to assess themselves, that means have also their own feedback. And the feedback - we had a lot of discussion about assessment of feedback but feedback of course is necessary but there are some other ways maybe than just a grade.

COMMENT FROM AUDIENCE

I just want to make one point, Brendan said, "unhappy" – I'm not unhappy, I was just mentioning how important I felt happiness was in a learning environment. Once you were happy with the knowledge you were acquiring or you were in an environment where you felt positive and weren't frustrated, it was hugely different from being frustrated by knowledge being maybe piled upon you or not being able to interpret it. I myself am very happy.

BRENDAN TANGNEY

As I said, these are just notes, right? You've also said that you found that people coming into school had picked up a lot of preconceived bad ideas from the popular media and places like this, a lot of education now is about getting people to undo this false information which they are picking up already. I mean, there is a classic case, if you've seen the movie *Michael Collins,* have any of you seen that? Which is about this famous Irish revolutionary who died in 1922, and some of it is historically correct and more of it is – just pure Hollywood, but there is a scene in it where these members of the British Army are blown up by a car bomb in Dublin Castle and the car bomb is ignited when the ignition is turned on.

Now, car bombs have been well and truly used in this country but the technology wasn't available to do that back in 1922, so you now have a generation of people who come out, having picked up a very false idea of who or what Michael Collins was, and the type of terrorism that he did or did not get involved in. So what the media is pushing out is very interesting and I think something in the role of us as educators, I think a lot of that needs to be counteracted because a lot of it is wrong, a lot of it is instilling a set of values which is not conducive to a harmonious society, but that's just me.

QUESTION FROM AUDIENCE

Brendan, I just wonder did you get into discussing the whole area of what is worth learning, certain things, society seems to decide that there are certain types of things that are more important to learn than other things, and I just wonder if you got into that?

BRENDAN TANGNEY

No, we didn't, but I would hope that this maybe might provide a framework to answer those questions.

QUESTION FROM AUDIENCE

Brendan, you spoke about learning has not changed – did the other members of your group agree on that, because I'm not sure about that. Because our relation for example, the relation between the abstract and the concrete or the abstraction, our abstract thinking has changed, I think. And maybe also in relation to technology, the memorising of old Greeks – they had to memorise a lot and they learned by hexameters, for example, and that makes a change in the kind of learning, I think, no?

BRENDAN TANGNEY

Yes, I think you've got – my view is that no, the fundamentals of how people learn haven't changed, but what we learn and how we learn and the techniques we use for learning have changed, but that's just my view. Michael John has a different take on it.

MICHAEL JOHN GORMAN

At the beginning of our conversation quite a polemical position was made, which was it's not about technology at all, it's about fundamental purpose of what education is and what the goals of education are, and that in some ways while technology is clearly very important to this discussion. I To focus too much on the technology can be in some sense a distraction. As Brendan mentioned, it can offer politicians quick-fix solutions when they think that it is merely a problem of technology. So that was why we really initiated our conversation – okay, the real question is what is the purpose of an education, is it to create somebody to be a member of a community, in which case what kind of community are we talking about; is it to create a worker, in which case how should that skill be evaluated?

So it was quite a – there wasn't complete consensus on this but there was definitely – the point of departure was well, before we even begin thinking about technology and learning, we just need to get back to this more fundamental question of what is the purpose of education. I don't think anybody denies that technology has affected the way people – the types of practices involved in learning. But there was a more fundamental idea that the social and cognitive processes involved in learning perhaps were not to be conflated with the technologies of learning.

BRENDAN TANGNEY

Okay, I think the plug has been pulled on me from over here, but I think there is one more question?

QUESTION FROM AUDIENCE

I want only to ask this fundamental question. I was asked to send some sentences to the meeting; I had one in my head but I didn't put this on the map, and I want to put it here: more education, less war _ and it is in my understanding the idea why we are here. Thank you.

QUESTION FROM AUDIENCE

I didn't see any indication of the popular slogan, "learner-centred". It changes a bit from learning to learner and the question of what that word means in terms of what that term means, as far as how we rethink our way of constructing learning environments. I think it potentially could mean a lot. I think it's a key which opens much of this black box to us and I think at some point it deserves some consideration. I don't know if I missed it…

BRENDAN TANGNEY

We didn't get that far. There were two questions that we didn't get to, one was "What is the role of technology in all of this?" and the other was, "What is the role of schools?" And I think if we opened up those questions, the learner-centred debate would have come out, but I presume that other groups will have thrashed those.