

FOLLOWING IS A TRANSCRIPT OF EXTRACT FROM:

PROGRAMME	<u>WIDE ANGLE</u>	STATION	<u>106FM</u>
		DATE & TIME	<u>23/05/04 11:05</u>
SUBJECT	<u>MEDIA LAB CONFERENCE</u>	OUR REF.	<u>BW 18/07/04</u>
		DURATION	<u>40 minutes, 54 seconds</u>

PRESENTER – BRENDAN O’BRIEN

I’m old enough to have done the primary certificate exam at primary school where I learned by books, chalk and talk. The same at secondary school. You may be young enough to have had some high blown technology at your school, most probably computers. Still, it’s likely that most of your learning was done by books, chalk and talk too. But why is it that almost half a century after the first man-made satellite went into space and 35 years since man first walked on the moon, modern technology remains little more than an adjunct, a sidebar almost to learning? A few days ago in Dublin big questions were posed about all of this. Some of the world’s leading lights on computer learning and the mechanics of thinking spoke at an international conference and a symposium convened in what is called the Media Lab Europe based in Dublin’s Liberties area. Media Lab Europe is the European wing of the leading edge Boston based Massachusetts Institute of Technology.

They discussed new futures for learning in the digital age. They asked if the children and adults of Ireland and Europe should steady themselves for a revolution-like fundamental shift in how they are educated. Space-age, digital-age, reality education. Some of those leading lights are here for this programme to illuminate us on this big issue of our time. In studio we have SileSile O’Modhrain. Sile is principal research scientist with the Palpable Machines group at Media Lab Europe here in Dublin, formerly with the BBC. SileSile is an expert in music technologies and a lot more and she’ll have a particular interest in what is called human-computer interaction. Now, stay with us because we’re into an area of high technology and terminology which sometimes makes people’s eyes glaze over and others get very excited about it but it is about our future. Sile, just before we go to anybody else, human-computer interaction, what’s that?

SILE O'MODHRAIN, PRINCIPAL RESEARCH SCIENTIST WITH THE PALPABLE MACHINES GROUP AT MEDIA LAB EUROPE

Well, the field of human-computer interaction is one that has been around for some time now and it basically concerns all the ways that we think about designing the interfaces between people and the machines that they use and the particular angle that we take in the Palpable Machines group is looking at the sense of touch. Up until now, these interfaces have relied mostly on screens and hearing, sounds, but we are trying to add touch to the interfaces which becomes very important when we start to think about mobile computing.

BRENDAN O'BRIEN

Now, there's a word, interfaces, what does that mean? It means the person and the computer together, is that what it means?

SILE O'MODHRAIN

Yes, it means the things that you do and see, the reactions of your computer to your actions and actions that you perform, so most people are familiar with simple interfaces like the screen and the mouse and the keyboard, but they are very specific to a computer that is a desktop. Now, computers are popping up all over the world in situations which are not desktop-based such as the global positioning systems in cars and other things like that and they require different ways of interacting with that can't use a keyboard or mouse so this is the area which is broadly called human-computer interaction, really improving the human computer interface.

BRENDAN O'BRIEN

And are you one of those who believes that we should head into a kind of fundamental shift, a revolution-like change in the way we teach ourselves and our children?

SILE O'MODHRAIN

I think that we have to start realising that computers aren't items in themselves, they are embedded in our world, in the things that we use and we really have to get past the notion that they are things to be learned. They are really things to be used. And in that respect they need to move into all aspects of our lives. In the same way that we use them in work, they should be allowing and helping people to learn as well as to work.

BRENDAN O'BRIEN

All right, in all aspects of our lives. If you have a view on this, you can text us on Meteor 085 7106106 or telephone us on 644 5106. Now, also around this table is Carol Strohecker – have I pronounced that correctly, Carol?

CAROL STROHECKER, DIRECTOR, EVERYDAY LEARNING GROUP, MEDIA LAB EUROPE

You have, Brendan, and I'm very happy to be here.

BRENDAN O'BRIEN

Well, we're very happy that you are here and you're from Boston – you are not from Boston as born but you used to live and work and so on, near Boston?

CAROL STROHECKER

That's right, most recently I moved to Dublin three years ago after having lived 17 years in Boston. I grew up just south of there, in Baltimore, Maryland.

BRENDAN O'BRIEN

Right, a lot of Irish-American people out there.

CAROL STROHECKER

Indeed, yes.

BRENDAN O'BRIEN

All right, but that's not really what brought you to Ireland because you are one of what I have been calling leading lights, high fliers in this territory. I suppose you'll accept that from me, will you?

CAROL STROHECKER

Sure.

BRENDAN O'BRIEN

You are another senior research scientist directing what's called the Everyday Learning Group at Media Lab Europe in Dublin, Carol also lectures at the leading edge Massachusetts Institute of Technology in the US which I referred to earlier. Now, the Everyday Learning Group, what's that?

CAROL STROHECKER

We're interested in how people learn through everyday life, everyday situations, and also through the lifetime. We are particularly interested in putting people together of different generations, different cultures and paying attention to how they learn together through

sharing objects and artefacts that we design. We are particularly interested in learning as a creative process so through the interactions that Sile was just explaining, typically people who use our devices will generate something that didn't exist before. They would have created something and in the process they would have thought about ideas as the ideas are growing, as well as the construction that they are making.

BRENDAN O'BRIEN

Well, now, am I right in saying that you are one of those who say we have to make a revolution-like shift, a fundamental shift in how technology helps us learn?

CAROL STROHECKER

I believe we do and I believe the shift might be catalysed by technology. The technology might help us become more strongly aware of the kind of shift that is needed. But really it's a human shift that we need. You referred to the mechanics of thinking in your introduction and I think that's where we need to begin to look. How do we think about the process of learning? How do we think about who is in charge, how do we decide as we move into the 21st century, what are the important ideas that we need to be thinking about?

BRENDAN O'BRIEN

Right, do you think the symposium at the conference in Dublin, it was hosted by the Irish Government, it was part of I suppose the atmosphere around the presidency of the European Union. Was it just a lot of talk or will it deliver across Europe and in Ireland real change in the use of technology for children in the classroom and people learning? Will it?

CAROL STROHECKER

Well, Brendan, we had two very different events. The Government sponsored event that you are referring to which was held in conjunction with Ireland's hosting of the EU presidency

was focussed very much on collecting perspectives from across Europe and from various agencies and constituencies within Ireland, asking these kinds of questions. On the day after we had a smaller symposium which was run just by Media Lab Europe, in which we had an opportunity to go more deeply into some of the questions. We were thinking about policy but we were also thinking more about the nature of ideas. The nature of school – are the structures for schooling, for example, that we have inherited now from the past century or so, those which we need to continue going forward?

BRENDAN O'BRIEN

That's the question I was raising in the introduction, you know, books, chalk and talk, there's still a blackboard, we still read from books, the teacher stands up there talking and mostly the children are in rows of desks as I was and my parents were, I'm quite sure, all the way back. So do we need a really fundamental change? Will, you believe, the children of the future be sitting in a completely different environment?

CAROL STROHECKER

I'd like to think so. I'd like to think that this notion of learning as a creative process, as a collaborative process, which is not segregated by age but which is focussed on materials that call attention to notions of systems in the world around us, of how we can think about these things is very certainly the kind of change we need.

BRENDAN O'BRIEN

But this is your idea, that people of different ages and different generations could learn together, is that really that we shouldn't structure strictly by age? Is that what you are saying?

CAROL STROHECKER

That's one component of it.

BRENDAN O'BRIEN

All right. Well, now, on the line, Seymour Papert, are you there?

SEYMOUR PAPERT

Yes, I'm here.

BRENDAN O'BRIEN

Seymour, where are you on the line from?

SEYMOUR PAPERT

I'm in the State of Maine, close to the Atlantic.

BRENDAN O'BRIEN

All right, is that the United States' smallest State, is that right?

SEYMOUR PAPERT

Population may be. The State is quite large, quite large.

BRENDAN O'BRIEN

You came to Dublin for these events.

SEYMOUR PAPERT

I did, yes.

BRENDAN O'BRIEN

All right, am I right in saying that in the state of Maine you were one of those who were instrumental in persuading the powers that be to install lap-tops in senior primary schools, what we here call primary schools?

SEYMOUR PAPERT

Well, this is true that in the State I was part of a process that led to a law being passed that every child should have a lap-top computer or something of that sort. We are very sure that in a few years the kind of devices we have available will be very different from what we have today, but that every child should have a personal computer and so far this has been extended year by year, all the children what we call 7th grade and 8th grade, presently actually have them.

BRENDAN O'BRIEN

All right and you were saying in the future things would be different, we won't be talking about lap-tops, give us an image of what the children of the future and how far into the future, what they will be dealing with?

SEYMOUR PAPERT

Well, in terms of actual devices, I think a good analogy is think of what happened with the telephone. It used to be something screwed on the wall in your house and it's now something that I notice that a very large number of young Irish children have in their pockets and they use it all the time to make the arrangements and dates with their friends. It's become a banal, everyday thing, just part of their lives and I think computers similarly, very powerful computers will be no larger than those telephones, maybe smaller, maybe we have people working right now on making computer screens that are more like paper, you can fold it up, put it into your wallet and unfold it and there it is, a computer screen. So physically it will be different but about schools I heard you ask whether we think that there should be computers in schools – that's the wrong question.

There will be computers in schools, in everywhere in our society where people work with knowledge, with numbers, with text. Like, even a secretary expects to have her own computer on her desk and so with all other intellectual activities. School is the only one that is lagging behind and it's not lagging behind quite that much that 20 years ago on the average there were several hundred computers, several hundred children to every computer in a school. Ten years ago it was like 15 or 20, now I believe taken over Europe it's about 5 computers – sorry, a computer for every 5 children. You can see the trend, in a short while we will have a computer for every student and it will be absurd to keep on teaching in the same way when we have this new technology.

BRENDAN O'BRIEN

That is what we want to come to, and you mentioned Europe there and before we go to the news, Corinne HERMANT – have I got that correctly, Corinne?

CORINNE HERMANT

Yes, Corrine HERMANT, yes, hello.

BRENDAN O'BRIEN

Hello, welcome to the programme. You are speaking in a personal capacity, I understand, but you are a principal administrator really, in the European Commission office, is that right?

CORINNE HERMANT

Yes, I am speaking to you from Brussels where it is raining now. In fact I am managing a programme in Brussels, a section in the Socrates programme which deals with co-operation in education, European co-operation in education and since 1995 we have focussed on funding experiments in the educational use of ICT.

BRENDAN O'BRIEN

And do you take the view – we have just heard Seymour Papert there say from Maine that all children will have computers, the computers they have will be radically different, we've got to move way beyond where we are now in terms of how we are taught and our children are taught. Do you see that happening across Europe and if so in what kind of timescale?

CORINNE HERMANT

I think the time of education is much slower than the time of technology. Things may take 30 years and what we know from computers now is sometimes very much office based, with kind of fast-food training which is very much office related. What I see from Media Lab and Seymour Papert experiments is that in fact we must look much ahead of this kind of office-based model of what is a computer. If I take my own house, I am now sitting at home, we are Sunday, my child is just next door playing with music and we have a media interface and she is also doing the editing of what I have been filming during the Irish presidency event last week. I mean, it's a whole environment, it's not just the computer and I think we must also – I kept in mind a very nice sentence from Aidan Mulkeen, a researcher with us during the event and during the Media Lab, who said we should take – for example, if you take the

example of church, in church you have no noise although there is more and more noise around. Maybe in the school we may have things which we not – the same thing which are outside the school, even there are bridges and opening between the two. We had also very nice video from the Computer Clubhouse which has been organised in Dublin and I think it was very nice environment which could complete the school but not necessarily changing the way people learn and changing everything about schools.

BRENDAN O'BRIEN

Okay, bringing the outside in, in a sense. Well, let's continue with this, but first the 20/20 news.

NEWS BREAK

BRENDAN O'BRIEN

Right, we are back in the Wide-Angle studio, we are discussing the future of learning and technology and computer and all of that and in the studio we have with us Sile O'MODHRAIN who is a principal research scientist with a group called Palpable Machines at Media Lab Europe here in Dublin, high tech here in Dublin which is an adjunct to the Massachusetts Institute of Technology in Boston. Carol Strohecker is also here, she is another senior research scientist and she is also with Media Lab Europe in a group called Everyday Learning Group. I'm cutting short what you do because I know what you do is complex and interesting. Seymour Papert is on the line. He has a long pedigree, I've only touched on it, he's on the line from Maine, the State of Maine in the United States and also with us on the line is Corrine HERMANT who is at the European Commission, a principal administrator there and dealing with an education kind of sector, if I can put it in simple terms. And now, let me just ask you, this event that we had in Dublin, the two events that we had in Dublin, if I – if a child of 12 is listening to this, shall we say, do you think will that child of 12 when they go into a secondary school in Ireland at age 12 that by the time they finish their Leaving Cert, 6 years after that, by the time they are 18, that their learning

environment will have radically changed or will it just be like as I said, as I was taught, as you were taught, books, chalk and talk? Anybody like to take that? Sile O'MODHRAIN.

SILE O'MODHRAIN

I think the environment has already changed significantly. I think if you go into most post primary schools, and even some primary schools you will see that children are using the resources available through CD-ROMs, through the web, through their access to these things that their parents can also help them with and are putting together projects with such wide scope that they would be unknown to us who were educated in a former time.

BRENDAN O'BRIEN

Carol, Carol Strohecker?

CAROL STROHECKER

I think the answer to that is up to us, I think we have to make some decisions about how we are going to continue or restructure the learning environment. We have at the moment in Ireland a wonderful project that has been run by Deirdre Butler from St. Patrick's College at Dublin City University.

This was a project in which teachers were learning about new technologies side by side with primary school children. Interestingly, this group of primary school kids is now beginning to enter secondary schools and we'll be watching them and trying to create special environments for them because they are already way ahead of many of the teachers they will be encountering. So it is a moment of change, a moment when we have to acknowledge the spotty nature of take-up of some of the important ideas here and I think we need to support going forward and acknowledge that the teachers, the adults as well as the kids, need to grab hold of some of the ideas. It's not just a skills based kind of question, there are some ideas about computation that people need to work with through making things.

BRENDAN O'BRIEN

But are we talking about children not sitting in rows? You were saying that your Everyday Learning Group, right, is dealing with teaching and learning across the age groups and generations. And in Brussels Corinne HERMANT was talking about taking the – if you like the atmosphere – from outside in that the school may not be as quiet. If you mix all of those things together with what Seymour Papert was saying about everyone having computers, the computers being completely different, much smaller, much thinner, much more flexible, is that what we are really talking about, all of those coming together?

CAROL STROHECKER

Well, you know, Brendan, Corinne gave us a nice example in talking about what her daughter is doing this morning and I think we need examples, we need models. Corinne is talking about her daughter working with a range of technologies, a range of media recordings, and coming up with her own ways of putting together a movie or a way of presenting to other people her interpretation of what happened during the events that her mother had participated in. Interestingly, we are modelling a certain way of working even at Media Lab Europe which of course is university level and that's the same model that Deirdre Butler has been working with at primary school level. It comes from the way in arts and architecture that people work on projects together, surrounded by materials, surrounded by ideas, easy discussion because you've got a no-walls kind of open studio environment.

BRENDAN O'BRIEN

No walls? Is that what you said?

CAROL STROHECKER

No walls literally and symbolically, I'd say, the free exchange of ideas which is facilitated by an environment where you can see the work as it grows. We believe this model to be very conducive to bringing forward the best uses of new technologies in schools as well.

BRENDAN O'BRIEN

Well, that's one that I think a lot of people will understand, the no-walls psychology. Seymour Papert, does that ring a bell with you?

SEYMOUR PAPERT

Well, when I was in Ireland last week, I met some very interesting people, but my most interesting experience was visiting a two-teacher school near Kilkenny and this was a school where although there were books there, although people did talk, I didn't see any chalk, certainly nobody was sitting in rows. There were children of mixed ages from age 4 to age 12, there were teachers and the children were on the floor building an engineering project out of Lego and they were putting in it little computers that were nothing like the computers that people imagine on their desks, these were little computers, very powerful little computers that children could put into these things that they were building, vehicles, robots, all sorts of systems.

So they were learning stuff that we usually think can only be learned at college in engineering courses and they were coming into contact with ideas from mathematics and science and how to organise projects at an elementary school level in an extremely advanced way. I see that little school as the model which we will be following in all our schools and I don't believe at all the 30 year – the title of my next book is going to be, "Fiddling while Rome Burns" and I apply that to anybody who thinks we can make small changes now and that it will take us – in 30 years the school system will have burned down. I think we will manage to see much faster changes.

BRENDAN O'BRIEN

What is the title of this forthcoming book?

SEYMOUR PAPERT

Burning – sorry, “Fiddling while Rome Burns” – we have a crisis on our hands, learning is changing in our whole society. All of the problems schools are having of violence and learning disabilities and for that matter their financial troubles, all this is because the gap between school and society is getting bigger and bigger and bigger and kids go to school and they know this isn't like the way things are done in the world out there and they have been disaffected, they are not buying into school and this will happen more and more until – let's call it Kid Power will force schools to change.

BRENDAN O'BRIEN

Kid Power. This school you visited in Kilkenny, it was a primary school, what you call an elementary school, was it?

SEYMOUR PAPERT

It was ages 4 to 12.

BRENDAN O'BRIEN

Okay, that's what we call a primary school, can you give us the name of it, do you know the name of it?

SEYMOUR PAPERT

I'm sorry, I can't pronounce the name.

BRENDAN O'BRIEN

Right, it's in Kilkenny anyway.

CAROL STROHECKER

It's associated with the Empowering Minds project that I mentioned, run by Deirdre Butler.

BRENDAN O'BRIEN

All right.

SEYMOUR PAPERT

The teacher is called Tommy Maher, I think.

BRENDAN O'BRIEN

Ah, Tommy Maher, we would say, right. But there's a money thing on this, now, and I'll bring in Corinne HERMANT on this from the European Commission because of money. A texter says, "What if you can't afford a computer and even if I do get one could a person on social welfare and low wages afford the Internet charges?" Seymour Papert, do you see it getting cheap?

SEYMOUR PAPERT

Well, I see two things, it is getting cheaper and it will get much cheaper. On the other hand, this just shows how poor our mathematics instruction is if you think you can't afford it. If you look at the total cost of education and even without adding in the social cost of the people who failed in the schools who become social misfits and unproductive people and even criminals, the total cost of education is – the cost of computers maybe 1 or 2 % of that amount.

BRENDAN O'BRIEN

All right, another texter says, “We have the lowest rate of computers per head of population in school” – I don't know in comparison to where, “But we like to portray ourselves as high tech in Europe”. That's Dave from Leixlip writes, so they are listening. Corinne HERMANT, is there a financial aspect of this, in other words, if the European Union advances towards the mind of technology and change that both Carol is talking about and Seymour Papert is talking about, as well as Sile here, if we advance to that, aren't there big money implications?

CORINNE HERMANT

I think the financial aspect is essential. The European Commission devoted a hundred of million Euro to research development and piloting the use of technology. What is more tricky that the – I would say the pilot or pioneering effect of technology is the sustainability of the pilot we are launching and what is tricky is that behind the Media Lab experiment, behind what Seymour is doing, you have not just technology, you have human beings, you have sometimes Seymour Papert himself and he was very influential to make things happen in difficult backgrounds and social arena. What is essential is to give an acute sense of what this investment is about. It's not just children, it's services, it's about – it's also software, good software, good – and not just technology and content and I think of course – my figures are a bit different from the ones of Seymour Papert. I now remember some figures from New

York claiming that out of the whole budget of education in New York, if you add the technology, the software, the hardware, the educational content, and all the services around the pupils to make things happen, that would just have things happening, it's up to 10 % of the whole budget of education, it's as much as their buildings.

BRENDAN O'BRIEN

Corinne, all right, do you agree with Seymour Papert that you know, fiddling while Rome burns, no change will come without Kid Power, we're way behind – do you agree with that?

CORINNE HERMANT

I think it's really very important. I think we hear too much in schools about you are useless, you are hopeless, you have no future, you are losers, and the empowerment issue is everywhere and good teachers are empowering pupils without technology and we may still have bad teachers who don't empower their pupils with technology. I think the methodology is a very crucial issue building trust, empowering learners and empowering teachers.

BRENDAN O'BRIEN

What about our texter, Dave from Leixlip, who accused us, said that we have the lowest rate of computers per head of population wherever, what kind of rate of computers in schools do we have across the country, you know, in the general populations, in Europe?

CORINNE HERMANT

The rate is much better of course in Sweden, Norway, Finland, which are very much equipped. But the questions are the same and what is also important to note is that these countries have always invested very highly in education.

BRENDAN O'BRIEN

And where do you think Ireland is in that?

CORINNE HERMANT

I think Ireland is quite fine and I think – for example, it may be more important to build competence centres or prep houses even if the ratio is low and all the discussion about investment, where investment should go, should it be in computers first or in human resource first? It's a discussion which should involve more stakeholders, not just ourselves and not just specialists and the one who are politically correct, but also people from the ground, they have their word to say and we have to listen to them because in some cases, like in Portugal where the very low PC per pupil rate - I visited some time ago some wonderful competence centres which helped teachers to build projects.

BRENDAN O'BRIEN

All right, well, Sile O'MODHRAIN, let me just take up this point that Corinne HERMANT is saying there in Brussels, that it's not just about buying technology or investing in technology it's always about investing in human resources, which I presume is training people and educating them in all of this what we are talking about. Do you detect that we are talking about things that we are not doing?

SILE O'MODHRAIN

I think there are a number of people in the society and in the educational system who are doing, but the question is are we facilitating their doing, are we giving them the resources they need and giving them the freedom they need to do these things.

BRENDAN O'BRIEN

Are they being encouraged and given the freedom? Seymour Papert is talking about visiting a primary school, what an American would call an elementary school in Kilkenny, he found it really exciting, really modern, completely radical in some respects but it was only one.

SILE O'MODHRAIN

Yes, and Carol can talk to this more fully. There are a number of schools in that scheme, is that not true, Carol?

CAROL STROHECKER

There is, but each of them – they have been able to come together and form their own support system but that had to grow over time, the teachers were learning about the new technologies, many of them starting from a position of fear and that was a lot of the accomplishment, it was a many years' long project.

BRENDAN O'BRIEN

Fear of the technology?

CAROL STROHECKER

Absolutely, technophobia, and that phobia takes different - - -

BRENDAN O'BRIEN

But how do you jump a generation here? I mean, Seymour Papert is saying, not until Kids' Power, right, forces the issue. A teacher who is 40 years of age we'll say came up with a

particular way of learning. Even a teacher of 25, you know, certainly would be used to computers and mobile technology but if you are going to make the big generational shift quickly before you have Rome burning as he put it, how do you do that?

CAROL STROHECKER

Well, one thing to acknowledge that kids are fearless unless they learn it, especially when it comes to the new technologies. We have seen in the Empowering Minds project situations where the adults are learning from the children just as much as the other way around, that's a very important point, I think.

BRENDAN O'BRIEN

Yes, do the teachers learn from the children?

CAROL STROHECKER

Absolutely, because when we are talking about the kind of open environment that Seymour described with the kids building the engineering projects on the floor, running to get this bit that has to belong to that part and asking this person for that idea and so on, it doesn't matter anymore how old anyone is, it's just about who has experience with the ideas, who has tried something out, who has seen what works, and you regard the people as resources just as much as the books or the on-line references might be.

BRENDAN O'BRIEN

Okay, Seymour Papert in Maine in the United States, come back in there, are we actually talking about what Carol is describing and what you described as being the norm in the future?

SEYMOUR PAPERT

Well, one should not presume to have a crystal ball and look at the future. Think of transportation in the year 1903, they couldn't imagine the airplanes and the cars and the trucks that we have but they knew whatever it was, it wasn't going to be pulled by horses, it was going to be a different form.

BRENDAN O'BRIEN

But technology, as I said in the introduction, I don't know if you were there from the beginning, it's 35 years since man first walked on the moon, it's nearly half a century since the first Sputnik, etc., in space, and we still have not made a really radical shift.

SEYMOUR PAPERT

In school. Well, that is true, we haven't and I think there are a lot of reasons for that, you know, explain that. At the conference I used the following maybe not very polite analogy, I think that I've studied very carefully what happened in Russia, I spent a lot of time there and I've studied very carefully the collapse of the Soviet system. I think that our education systems are the closest we have to something like the Soviet system, that is they are built around something like a command economy. We have centralised decisions, we have a system that makes it very hard for initiatives and new things to be tried and compare this with the business environment, with the medical environment, or the social environment in which children live. In all these places, it's much easier for individuals to innovate, try something, do things differently, and some of those things turn out to be good and some bad. This is the way that progress and evolution happens, this is why the Soviet Union collapsed and I think that our education system is inadequate and dysfunctional in exactly the same way.

BRENDAN O'BRIEN

All right, that's a provocative point to go to the 20/20 news.

NEWS BREAKBRENDAN O'BRIEN

You are welcome back to the Wide Angle with myself, Brendan O'Brien and we are discussing high technology, computers and learning and all of that and I won't go through everybody's credentials but we are speaking to Sile O'MODHRAIN, Carol Strohecker, both in studio. On the phone from Maine in the United States, Seymour Papert and on the phone from Brussels Corinne HERMANT from the European Union Commission. Now, our texters have been interested and busy: "My kids, 18 and 16 years of age, have never had access to a computer in school", says one, 18 and 16. Carol, does that surprise you?

CAROL STROHECKER

It makes me sad, I don't know if I should be surprised or not. I want to come back to the point – this is largely up to us, we have to make decisions right now about what kind of access kids are going to have throughout Ireland. But it's not just a matter of putting computers into the schools, we can't expect people to do interesting things with them. Teachers have to learn what are the interesting ideas to work with, it's not just a matter of learning office skills, something like that, but really what is the essence of computation, what makes computers work? We've seen various projects that kids can understand this just as adult engineers can in rudimentary but very important foundational fashion, and that's what we need to promote.

BRENDAN O'BRIEN

As a matter of interest, Carol, Carol Strohecker isn't an Irish name, you are here in Ireland, do you have Irish connections?

CAROL STROHECKER

Indeed I do, I have a great grandmother who came from – part from Donegal, another part from the South of Ireland I'm told, around Cork, I have also relatives who came from Poland on the other side of my family and indeed there is a bit of German and French in the mix as well.

BRENDAN O'BRIEN

Right, so you are truly - - -

CAROL STROHECKER

I'm typical American.

BRENDAN O'BRIEN

Typically American and truly modern I suppose. Sile O'MODHRAIN, you must be Irish?

SILE O'MODHRAIN

Absolutely, I was born and bred here.

BRENDAN O'BRIEN

Fair enough. Seymour Papert, I see you are South African, born, is that right.

SEYMOUR PAPERT

That is correct, yes.

BRENDAN O'BRIEN

Right, but you are living in America?

SEYMOUR PAPERT

Right.

BRENDAN O'BRIEN

But no Irish connections?

SEYMOUR PAPERT

Only loving Ireland.

CAROL STROHECKER

I think in spirit, we've seen that very well the past few days.

BRENDAN O'BRIEN

All right, we like to know, we like to join up the dots in Ireland, you know the way it is. Corinne HERMANT in Brussels, you must not have Irish connections.

CORINNE HERMANT

No, I am a Parisian, rather than say I'm French I say I'm a Parisian and most of my family was coming from north Paris but I think I have some Spanish ancestors.

BRENDAN O'BRIEN

Right.

SEYMOUR PAPERT

And I'm both a student and lover and disciple of St. Patrick.

BRENDAN O'BRIEN

Oh, right a lover and disciple of St. Patrick.

SEYMOUR PAPERT

I think what St. Patrick did for Christianity is what we need for the computer, that is give it a deep, human, magical, sensual component.

BRENDAN O'BRIEN

He banished the snakes from Ireland we're told, has that anything to do with this, Seymour? Banishing old ideas, I suppose, banishing the walls that Carol was talking about.

SEYMOUR PAPERT

Better than banish the old ideas, he integrated, he drew on the best of the old ideas and gave them a new form.

BRENDAN O'BRIEN

All right, another texter here by the way, one of our listeners, "All student teachers now have to do a computer module so expect change in a few years time". Now, here's one that I'd like all of your views on, it's from a Worried Mother of Two, it says: "In your paper review" – before this discussion we were discussing the Sunday papers, "You talked about how companies are facing an epidemic of Internet porn. Do we really want to advocate free access to Internet for our kids? Is anyone else worried about what this could end up in?" Now, would anyone like to take that up? Seymour?

SEYMOUR PAPERT

Well, I'll definitely take that up, I think that this is a very serious problem with many sides. I'll just mention one of them that's close to what we have been talking about, because our schools are not really taking up the computer and showing children, teaching children how to use the technology in really good and deep ways, children use it in not such good ways and I think that many of the poor users of the computer including visiting unsavoury websites and playing violent games and just messing around all this – is certainly strongly supported by the fact that the schools have not been able to really make the computer part of what they are showing the children as a constructive way of life.

BRENDAN O'BRIEN

Okay, Carol Strohecker, in studio?

CAROL STROHECKER

Yes, and I think the point that you were bringing us to, Brendan, by asking us about our various heritages is that we are all global citizens at this point and that is one of the important ways forward that the computer and the Internet are enabling. I think we can't hide from it, at the same time we have to acknowledge that there are these multiple concerns. One of the

participants in the Media Lab Europe symposium was the chief executive officer of Mamamedia.com, Idit Harel Caperton, who recently has founded the World Wide Workshop foundation, as well as other people who are really leading inquiries into children's access to the Internet, has been very concerned with the issues of pornography, filters for different sites that parents can know about. There are many movements afoot, discussions that people can be pointed to that would help them to think about these issues. They are not being ignored.

BRENDAN O'BRIEN

They are not being ignored but what our mother of two is worried about is if you have all this immediate access and advanced access, radical access to computers, can you have that unless you can deal with all the junk and rubbish and porn and everything else that comes unsolicited onto the Internet? Sile O'MODHRAIN, what do you think?

SILE O'MODHRAIN

I think we have to be proactive. I think schools and the educational system has to take on the Internet and say we will come up with a way in which we can make the best parts of this available. As Seymour is addressing, there are good things and bad things about technology and we need to be able to proactively design the environment that our children will work in, in a protected way. That's not to say that we can always protect them, but at least in the school environment, the same way that librarians are careful what books they bring into the library, we should be able to acknowledge the things that may get into this system that are undesirable. But the other thing to acknowledge is that computers aren't the Internet, they don't necessarily have to be Internet accessible. The tools that Seymour is talking about are stand alone tools that enable construction of small things which are computer-based but which are not Internet-based, and that's a fundamental distinction which may be a gateway to opening up this.

BRENDAN O'BRIEN

All right, I have a question but one of our texters anyway, Pete texted us to say, “We returned from Asia last year. Our 7 year old is losing what he knew because teaching in Ireland is like 40 years ago, no more PC research and no more debating in class and all of that”. Corinne HERMANT, yes?

CORINNE HERMANT

Yes, I think we must be careful not to generalise because it can be the other way around. There are now some studies in Sweden which show that with the use of the computer, some – in some classroom there is less and less place and scope for analysis and discussion and more and more of (inaudible). And then we get back to the issue of what is happening in the classroom. We must not be global, we must also think about the resources that you have in each school, in each territory. We had a funny discussion during the Media Lab event about cheese and about the fact that local context is essential and I'm sure that in Kilkenny we cannot just have a kind of stand up recipe, but also they can do it from the local resources.

BRENDAN O'BRIEN

All right, Carol Strohecker, you want to come in.

CAROL STROHECKER

Yes, just I think it's important in a discussion like this for all of us to remember that what we have come to think of as the computer is changing rapidly. It's not just this object with keyboard and screen that sits on the desk but anything you look around on the table in front of you at the moment could have computer capability built into it, computer functionality which Sile was reminding us of and Seymour's description of the children who are making Lego constructions and putting in tiny computers, what does he mean by that? There is actually a little piece of Lego that has memory chips, a processor, you can write a computer

programme that can then be sent to that little chip so it lives stand-alone in a little Lego construction that then can move on its own, because a child instructed it to do that, this is the kind of computational capability that we will soon see along with communications capabilities, embedded in the objects around us.

BRENDAN O'BRIEN

Right, this brings in a texter who says: "About Internet research, our kids are missing out on something amazing which is reading books", this is the other view, now, you see? "Because they now want all their information in a snappy, concise way like the Internet offers, the book, chalk and talk approach had its benefits". Seymour Papert, you have been at this now for 40 years, you have written books called "Children, Computers and Powerful Ideas", "The Children's Machine", you have a Seymour Papert Institute where you are really up there with it. Can I ask you a very simple question from somebody who is late into computers, that's me, can you whiz kids not invent something which simply acts as a wall against porn and undesirable material coming in on the Internet? Seymour?

SEYMOUR PAPERT

Yes, and no, I don't think we can really do that, I think we have to build a kind of moral, ethical relationship of communication with our children and that's the way we protect them against bad ideas, and encourage their taking up of good ideas. It always amazes me when people ask questions like, "Do computers do this or do computers do that", or "Are they good or are they bad?" I ask the same thing about books, saying some books are wonderful, inspirational, poetry. Some books are fascist propaganda and disgusting porn. The content doesn't depend on the medium. Somehow in the discussion of the computer people get confused about that. Everything depends on what we do with these computers and the last thing I would say if we are running out of time is that I detect in a lot of the discussion, there has even been a little bit of an undertone in this discussion that somehow teachers need to learn something very hard for them to learn. I have enormous confidence in teachers, I believe that if you give them the right conditions to carry out - they are teachers because they love children, they love that work, most of them and if you give them the freedom to follow

their human instincts and the means to do it, they will develop the most wonderful ways of using this technology.

BRENDAN O'BRIEN

What about our texter making the point about books being amazing but children now, we've seen them, I've seen them, the speed at which they can write text messages, but the words are all, you know, a quarter of their true size. Will we arrive at a stage if we go too fast at this where children will think that spelling text is txt, spelling the word you is the letter u and so on?

SEYMOUR PAPERT

I don't know, Shakespeare didn't care very much that he spelt the words differently from other people, I don't think that's such a big thing. I do think something that's worth thinking about is that in the last few years, a certain lady became the richest lady in the world I think, richer than the Queen of England I think because she wrote the book that is being read by children all over the world. I know all the children around here who have computers in their homes, in their schools, they are passionate, they stand lining up for the latest edition of this book which I shouldn't advertise but you all know what I mean.

BRENDAN O'BRIEN

Well, tell us the name of it anyway. It's that important you won't sell any more though this programme.

SEYMOUR PAPERT

Harry Potter, you can't say any more.

BRENDAN O'BRIEN

Okay, Harry Potter, that's what we thought around here. We have a very smart producer who has said to me, he must be talking about Harry Potter. You see, we are very much up with it here in Newstalk 106. We are about coming near the end. Let me ask Corinne HERMANT in Brussels at the European Commission, having gone around the table on this, are you an advocate for steady change, gradual change, or radical change?

CORINNE HERMANT

I think I am for steady changes and I think we should remember that – to quote perhaps the philosopher, that thinking is feeling. So whatever we do and whatever we decide I think we should really be very careful to make the importance of social interaction at all levels and that families should probably be much more involved than they are in the schooling at large.

BRENDAN O'BRIEN

All right, Corinne HERMANT, thank you very much indeed. Sile O'MODHRAIN, radical change or gradual change? In one sentence!

SILE O'MODHRAIN

I'm for whatever speed of change is required to allow the children growing up that are being educated today to function as knowledgeable and effective citizens in tomorrow's society.

BRENDAN O'BRIEN

Okay, Carol Strohecker?

CAROL STROHECKER

I'd have to say radical, Brendan and I second the idea that teachers, given proper financial support, technical and equipment support and social supports, and very importantly social supports, can bring us forward in ways we need to move.

BRENDAN O'BRIEN

You are all very good, very concise. It doesn't always happen in our business, you ask somebody to answer with a sentence, but we got them, thank you very much indeed, Corinne HERMANT, Seymour Papert, Carol Strohecker, Sile O'MODHRAIN. My thanks to everyone who participated in this show across the hour, thank you for listening and for your comments. They help to make and to shape the talk around this studio table as they certainly did this morning. Thanks to the series producer Victoria Enright, researcher Sean Steele, on sound Paul Duffy, the programme assistant Justin Dawson, that's the Wide Angle for this week. Karen Coleman will be back in this chair next Saturday at 8 am. I'm Brendan O'Brien saying I have enjoyed your company and have a good week.
