An Interview with Rupert Wegerif

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[Pre-print text of article in:]

The International Journal of Creativity and Problem Solving 04/2014; 24(1):37-44.

First of all, could you tell us a bit about yourself, your education, and what you are currently researching?

Hi Michael, as I am sure you realize that is quite a difficult question. Telling others 'a bit about yourself' means choosing the most important bits and I am not sure how to do that or even if it wise. But I am saved from having to make too many choices, and the risk of revealing too much, by what could be called 'the official narrative'. I am a Professor of Education at the University of Exeter, in Devon, England. I research dialogic education with technology recently focusing on Mathematics and Science and the development of online tools but I also have other related research interests. I have qualifications in Philosophy, Social Anthropology, Education, Computer Science and Educational Technology. In my work I combine an interest in the theory of education with practical approaches to engaging children in learning dialogues in classrooms.

2) **Now, could you give us a definition of "dialogic education "?**

Dialogic education can be defined through a focus on teaching for dialogue as well as teaching through dialogue. In dialogic education one of the core aims is to enable students to engage effectively in learning dialogues. Considered from the point of view of the individual student, this means teaching in a way that leads each student to acquire dialogic dispositions, habits and skills. Being open to the other yet always also critical and questioning and able to constructively challenge is perhaps a way to sum up what it means to have a dialogic disposition. To be dialogic is always to be on two sides at once, in a kind of tension between the inside perspective and the outside perspective so one is really able to feel what others feel as if from the inside yet also able to see these feelings from the outside and so can attempt to understand them. For me dialogic education is not just about educating individuals but it is also about educating groups and whole cultures. It is the job of dialogic educators to teach groups how to learn and think together better and to teach society as a whole how to learn and think together better.

In this definition the word 'dialogue' refers to that kind of open-ended shared inquiry in which answers give rise to further questions. This is to distinguish dialogue from the kind of conversations in which people socialize and do 'identity work', without any real shared inquiry.

What are some of the challenges of education in this Internet age?

I think that the Internet is a disruptive technology for education. This is because it has the potential to support education much more efficiently and effectively than formal schooling, but the kind of education that it leads to is different from and even antithetical to, that found in formal schooling.

Education as shared inquiry is a natural function of the Internet. Whenever we use the Internet to look something up we might start by thinking we just want the answer but we are likely to find ourselves in dialogue with lots of people with different approaches to the answer. To use Wikipedia effectively, for example, it is not enough to accept the first thing you read but you have to consider who wrote it and check with other sources. In this way, even in the minimum sense of selecting between alternative accounts, you inevitably find yourself participating in shared knowledge construction. To make use of the knowledge potential of the Internet we need to learn how to participate effectively in constructing shared knowledge together with others whom we might not know.

One reason why Internet education is different from formal education is its lack of fixed boundaries. Whatever the issue in question is, we can find multiple points of view and no easy way of closing down the debate. Traditional education, with its focus on transmitting the 'authorized' correct answer, does not equip students well for dealing with the new reality of knowledge construction on the Internet. The Internet means that there is an urgent new need for even the youngest learners to be able to engage critically with knowledge claims.

The current school system, which studies show is remarkably similar all over the world, was built around print literacy. Schools begin by teaching reading, writing and arithmetic and continue with the transmission of knowledge found in key books ('the curriculum'). The default image of knowledge implied in this system is an accurate representation of reality found in a textbook and reproduced in an exam paper. The practices of the Internet Age challenge this image of knowledge and this system of schooling. In the Internet Age we need to teach the skills and dispositions required to learn continuously with others, even others on the other side of the planet who we will never meet. I call this new skill, or 'complex competence', required for the Internet Age: 'learning to learn together' (L2L2). It is not an individual skill so much as a culture. To teach L2L2 we need to change the culture of education and implicit assumptions about knowledge and truth embedded in that culture.

How can a good teacher go about teach for both thinking and creativity in the primary grades?

Good thinking is always creative because it emerges from the encounter of different perspectives. To think well is to see things from multiple points of view and to be able to step back and allow new insights and whole new ways of seeing to emerge from this. We also need critical thinking to check the implications of ideas and to select between competing ideas. There is ample evidence that good thinking, both creative and critical thinking, can be taught in primary schools but there is also evidence that it is not so easy to teach thinking and that the success of teaching thinking depends very much on the character of the teacher.

If a teacher responds to 'why?' questions by saying 'because I say so' or 'because that is what it says in the textbook' then children will learn how not to think. If a teacher responds to 'why?' questions with real thoughtfulness, indicated perhaps by an initial pause for reflection, perhaps asking others for their view, perhaps considering how best to pursue the inquiry by searching for other perspectives using a search engine on the Internet, then the children will automatically and naturally learn how to think.

Research has shown that very simple techniques such as extending the silent pause between asking a question and expecting an answer, can increase both creativity and reflective thought. The best way to teach creative thinking is to encourage children to ask questions and not to rush to easy answers. A programme called 'Philosophy for Children' is good for developing children's questioning power. I have been involved in developing ways of teaching children how to talk together in groups in order to learn together in every area of the curriculum called 'Thinking Together', this has been shown to improve thinking and learning. I am now producing more materials for teaching thinking and learning with the Internet under the heading 'Learning to Learn Together' (or 'L2L2'). These can be found on my web-site.

In fact it is not very difficult to teach children how to ask good questions and to explore all the alternative answers that they can think of before coming to any conclusions. This is the best way to teach for creative thinking.

What is "graphically mediated synchronous dialogue"? Can you give us an example?

It is interesting to look in detail at the way in which new forms of communication might shape thinking. Face to face dialogue is what we are most familiar with but it has limitations. The main problem is that words do not hang around so as time moves on what was said is quickly lost. You might think that this problem of ephemerality is solved by the Internet but in fact most synchronous (or real time) chat forums reproduce this temporal limit effect as what is said disappears quickly from view replaced by new chat messages. Of course one could scroll up to recall what was said earlier but in real-time or synchronous dialogues people do not often do this.

Dialogue using dynamic concept mapping means individuals discussing a topic by locating their messages on a 2D virtual space or dialogue map and linking them to other messages. There is graphical mediation here in several ways, the color of the message boxes can represent attitudes such as 'creative' or 'critical' or 'ethical', the location in relation to other messages is significant and the space itself can be divided up in ways which structure the dialogue. In one example I asked students to plan an end of term party. Initially they put ideas down on a map. Then they linked them and moved them around to see what patterns emerged. Then they took the best ideas forward into another map area (by simply scrolling a bit to the right as a virtual mapping space can be infinitely extendable) which had a previously installed underlying graphical organizer in the form of the four quadrants of a SWOT analysis each quadrant labeled as: Strengths, Weaknesses, Opportunities or Threats. I found that this more graphically mediated way of doing online dialogue was effective and helped to support more creativity. With other forms of dialogue new ideas tend to replace old ideas in a linear way but with dynamic dialogue mapping there is the potential for progress by expansion with all the ideas remaining together in the same space and possibly resonating together to stimulate the emergence of new ideas.

In your opinion, what does it mean to teach thinking?

Teaching thinking is teaching productive dialogue. A dialogue presupposes that there are different perspectives (voices) and is productive when progress is made towards greater understanding either of the topic under consideration or of the range of perspectives in the dialogue. Inner silent reflection is an internalized form of dialogue. So to teach thinking it is necessary to teach the art of asking good questions and the art of listening well, which means not only listening to the words or signs but also to what lies behind the words and signs.

What is a theory of education- or does it consistently change over time as technology changes and is infused into education?

Theory is always part of a living dialogue. New technologies bring with them new opportunities and new challenges so theories of education need to respond to these. My theory of dialogic education for the Internet Age is a response to the challenge of the Internet outlined above and argues that we should teach how to learn how to learn together with others so that we can continuously adapt and respond to new learning challenges.

Theories of education tell us what we should teach. Theory is essential as any claim about what we should teach needs to be justified and that justification implies a theory. Those who claim to be able to teach without any theory of education are simply reproducing the implicit theory of education that seems natural in them. This is not acceptable in the Internet Age since these implicit 'folk' theories of education were formed in a previous age when the needs of education were different.

Any answer to the question of what we should teach is inevitably bound up with what we think is a good way of life and what kind of future we would like out children to live in. Do we want to prepare them for war between different cultural values by teaching them that, for example, 'British values are always the best values' or do we want to prepare them for participation in an imagined future global democracy by equipping them with the ability to engage constructively in dialogues across difference? Theories of education that tell us what we should teach are therefore inevitably political: they are supported by reasons and by evidence and they seek consensus but nonetheless they are not what we would normally call scientific theories as they are part of a dialogue about values.

However, I am also interested in the different kind of educational theory that could be called scientific. This theory deals with the micro-processes and mechanisms of learning in specific areas. Once we have all agreed, for example, that it is a good idea to teach algebra then the question we still have to address is: what is the best way to teach algebra? This partly implies a theory in terms of causal mechanisms. I think that there are some quite specific dialogic causal mechanisms that lead to conceptual development in many areas of the curriculum, mechanisms such as seeing from the perspective of a specific other person, seeing from the perspective of the larger community and seeing from the perspective of the hard to pin down outside point of view that I refer to as the point of view of the 'Infinite Other'. This theory of dialogic causal mechanisms leads to hypotheses that can be tested in experimental studies.

What do you mean by "cultural voices"? And what are they currently saying?

We tend to say that only people have voices and that their voices are the words that come out of their mouths. But we also know that entertainers and spirit mediums can channel other voices so that more than one voice seems to speak through their mouths. Something similar is happening to all of us all the time as we find ourselves carried along by voices that we do not completely control. We can only speak by using borrowed words that have already been spoken by others and these words carry with them resonances from the ways in which they have been used before. Words have personality, they bring with them ways of seeing and feeling and understanding the world.

The ‘voices’ of children talking about football in the street with friends is very different from the ‘voices’ they must adopt when talking properly about mathematics in the classroom. This switch from street talk to classroom talk is not just about using new words as you might pick up new tools, it is also about changing your personality. Speaking the language of mathematics, for example, is also in part becoming a mathematician and thinking the world as a mathematician would think it. To become educated you have to be able to allow educated voices to take over your vocal cords in order to speak through you and become, in part, your own voice.

Education is about entering into dialogue with cultural voices, like the voice of mathematics, history or religion, such that you learn how to see and feel and think the world from their points of view. These cultural voices are always multiple and constantly changing because we all participate in creating them and changing them as we take them up and speak them by allowing them to speak through us. Cultural voices are collective phenomena emerging out of and flowing through lots of apparently individual and local interactions.

Just as individuals are not always very good at listening to each other and engaging constructively with each other, so these larger cultural voices can become cut off and self-referential. You can see this when, for example, the voice of ‘science’ is unable to understand the multiple voices of ‘religion’ or even when the voice of ‘China’ is unable to understand the voice of ‘Japan’ as read in textbooks on Japanese history. The Internet has now become, or is becoming, the main shared medium of all cultural voices. This shared medium combined with the sort of education into dialogue described above holds out the promise of bringing all cultural voices into dialogue with each other.

You ask ‘what are (the cultural voices) currently saying?’ and of course the obvious answer is that they are currently saying almost everything that could possibly be said. There is a sort of mindless and meaningless cacophony to the Internet that reflects the multiplicity of cultural voices. However, I think that there is also an emergent pattern to Internet mediated communication that is the direction of increasing dialogue.

In any dialogue between two voices a third voice emerges which is a kind of witness position that understands both voices. Bakhtin called this the ‘superaddressee’. Often we give this ‘third voice’ a form calling it ‘all reasonable people’ as in ‘all reasonable people would agree that..’ or we call it ‘the voice of God’ or ‘the voice of the community of scientists’, or perhaps even ‘the future community of science’ if we think our ideas are not ready to be understood by our contemporaries. But really this voice does not have any fixed form because, whenever we pin down the witness position and try to dialogue with it, another witness position will inevitably emerge.

I have tried to express what I think is happening to cultural voices in the Internet Age with the ambivalent and dangerous idea of the voice of the ‘Infinite Other’. This is the ‘other’ that cannot be pinned down, that always escapes our definition but nonetheless is important because it is always calling us to think from beyond our horizons and to see things in new and surprising ways. So I think that the increasing dialogue between all cultural voices supported by the Internet is leading to the emergence of a new kind of cross-cultural and universal voice, the very voice of dialogue itself in a sense. This voice of dialogue or ‘the voice of the Infinite Other’, has no specific message but always manifests as a call to be open to that which we do not currently understand.

Tell us about these IDRF activities- and what do you hope to accomplish?

IDRF is an interpretation of the role of the computer in teaching and learning dialogues when groups of learners know how to dialogue together effectively. Normal classroom dialogue has been characterized as 'IRF', that is Initiation (by the teacher), Response (by the student) and then Feedback and evaluation (by the teacher). Tutorial software was said to often display a similar structure with a prompt by the computer leading to a response by the user and some sort of evaluative feedback by the computer software. Many have pointed out that this IRF structure of classroom talk is not very good for developing students ability to think. With the IRF exchange students cannot construct meaning for themselves but are led by the teacher or the surrogate teacher embedded in the software. However, I found then when we taught primary children how to talk together effectively around computers we often saw a very different exchange structure. A prompt by the computer from even the most simple tutorial software could led the students to sit back from the screen and discuss the question before coming back to the computer with a response. In this way the students were actively constructing meaning for themselves and their response to the computer was often an exploratory move to get feedback on their ideas. I called this new exchange structure IDRF, where the D stand for Dialogue between the students. IDRF is interesting because it combines the active construction of meaning with the directing of learning within a curriculum. This is quite a useful combination when there is some content or some concepts that students really need to learn but in order to learn it in depth they need the time and space to construct meanings together. Guided web quests with groups of students who are already prepared with good ways of learning together can be a way to implement an IDRF educational exchange structure.

Talking in the home is obviously important as shown by the work of Basil Bernstein and Pierre Bourdieu. What has your research contributed in this realm?

Bernstein and Bourdieu mostly provided theories of why talk in the home matters to the reproduction of social inequality but more recent empirical studies have supported their arguments. The difference in the kinds of talk that children from different backgrounds experience in the home revealed by Hasan's research, for example, is striking. Children from some poorer homes receive many more 'put-downs' than encouragements while those from most professional homes receive many more encouragements than 'put-downs'. This sort of finding suggests an explanation for differences in educational attainment if learning is dialogic and therefore requires trust in the other.

Perhaps the main thing that my research with others (Neil Mercer, Lyn Dawes, Karen Littleton and Sylvia Rojas Drummond) on teaching talk in classrooms can contribute to this important area is evidence that school interventions can make a difference. Several studies in several countries have now shown that a three-month intervention teaching dialogic talk for thinking and learning leads to significantly increased scores on standard tests of reasoning that correlate with educational success. We mainly achieved this result because of a minority of children who did very badly on such tests at the beginning and did much better at the end. My observations suggested that all that these initially educationally underperforming children required to do better at these tests (and at educational tasks in general) was to internalize a challenging yet supportive voice that prompted them to seek reasons and explore alternatives before deciding on the answer to test questions. Children who came from homes where dialogic talk was

common may not have needed this intervention but it worked really well with children who had not been taught how to talk dialogically outside of the classroom.

Bernstein described the difference between the restricted code of 'working class' children, requiring insider assumptions to interpret, and an elaborated code which made meanings clear for outsiders. His later attempts to explain this difference became, to my mind at least, quite obscure. A dialogic perspective on intellectual development makes the essential nature of this distinction much clearer and shows the pedagogical way forward to address it. The movement from a restricted code to an elaborated code is not primarily linguistic: the language code reflects a more fundamental shift in ways of seeing and being. Learning to think is mediated by dialogue with others but is ultimately about acquiring the ability to dialogue with absent addressee or the Infinite Other. The ability to see things from the outside as well as from the inside implies the ability to inhabit the boundary between inside and outside: a shift in identity that can to some extent be taught.

Explicitly teaching dialogic talk from day one in nurseries and schools is therefore an important way to redress social inequalities in access to educational opportunity.

How have YOU gone about reframing the teaching of Higher Order Thinking Skills for the Network and Internet?

Basically I have argued that what have been called 'Higher Order Thinking Skills' (HOTS) are those skills and dispositions and attitudes that we need to engage in productive dialogue. Creative thinking always takes us by surprise. We cannot determine in advance what will lead to the emergence of new ideas but we can prepare for new ideas by considering all perspectives and trying to see the problem in new ways. What is important is refusing the temptation to leap to certainty but remaining in the, often uncomfortable, space of uncertainty and allowing multiple perspectives to play. New insights often appear after all the obvious alternative ways forward have been explored and exhausted. New insights often appear out of the pregnant pauses within a dialogue.

This switch to thinking about thinking as dialogue takes us beyond the individual focus implied by the term skills to consider how we can create the kind of shared 'dialogic spaces' from which new insights emerge. We can open dialogic spaces through challenges, widen them by bringing in different voices, deepen them by questioning shared assumptions and resource them with tools that help to prompt and guide reflection. A dialogic re-thinking of what we mean by HOTS, and by the idea of teaching HOTS, leads us beyond the individual and even beyond the small group, to suggest the need to teach the whole planet to think better. The more difference that can be maintained within the tension of a dialogue the more creative that dialogue is likely to be. Teaching thinking can be about teaching specific skills and strategies but it is also about changing the culture to be more tolerant of the creative tensions that stem from uncertainty and a multiplicity of perspectives. The educational project of teaching thinking for the Internet Age is not limited to classrooms but is about creating the conditions for global dialogue.

Do you have a web site and where can we learn more about your work?

I have a blog at www.dialogiceducation.net which includes a page about my research also accessed through www.rupertwegerif.name. This includes quite a few downloadable papers. There are also teaching resources on this site.

What have I neglected to ask?

I am not sure because I became so taken up in answering the questions that you did ask that I forgot to think about all the questions that you neglected to ask. But it is good to realize that there are always other questions that could have been asked and that would have led to quite different answers. In a living dialogue answers always give rise to new questions. Perhaps the readers of this interview will come up with the really important questions that we have both overlooked. Please ask any new questions on my blog and I will do my best to respond.