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**Responsive or Responsible? Democratic Education for the Global Networked Society**

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**ABSTRACT**

In this paper, which his based on an invited keynote presentation given at the 14th biennial conference of the European Association for Research on Learning and Instruction (EARLI), I discuss the question how education should respond to the ongoing rise of the global networked society. I provide an analysis of the history and transformation of global networks, making a distinction between centred, decentred and pseudo-decentred networks. Against this background I discuss two different educational responses to the global networked society. I characterise the first as a responsive response, one where education is urged to adapt itself to the demands of the global networked society. I discuss the 21st century skills movement as an example of such a response. I characterise the second as a responsible response, one that takes a more critical position vis-à-vis the different manifestations and demands of such a society. I argue that the proper educational response has to be a responsible rather than a responsive one, on the assumption that education should always be understood as more than just a function of existing social and societal orders because that it comes with a duty to resist. I show how this duty is both inherently educational and inherently democratic.

**Introduction**[1]

The British sociologist Anthony Giddens has apparently once claimed that totalitarian regimes fall when in a given country a particular percentage of the population gains access to a telephone connection. While I do not remember the exact percentage (or even whether Giddens gave such a percentage), the interesting thing about this observation is what it suggests about the democratic potential of networks, particularly the 'flat' networks that have become part of the everyday lives of many people around the world. If, for a moment, we look at the statistics on mobile phones, the most ubiquitous networking devices around, we find that on a world population of close to 7 billion people there currently are more than 5 billion mobile phone connections (the 4 billion mark was passed in 2008 and the expectation in 2010 was that the 6 billion mark will be passed in 2012[2]). In 2010 Western Europe had a coverage of about 130% (i.e., 1.3 connections for every individual), and Eastern Europe of 123%. Other countries are catching up rapidly, with the expectation that China will have 1 billion connections in 2012 which amounts to a coverage of about 75%.[3] (This figure was apparently reached in May 2012.[4])

While of the 6 trillion or so text messages that were sent in 2010 (which is about 200,000 messages per second) many will have been entirely trivial – "I'm on the train," "I am not yet home," "LOL" – it seems reasonable to expect that this gigantic infrastructure is also being used in more meaningful ways. This already shows at a small scale that while network technology such as the mobile phone has the potential for meaningful use, it is in itself neither good nor bad, neither meaningful nor meaningless, neither democratic nor undemocratic. It all still depends on what people do with it. This was forcefully demonstrated in two recent events: the 'twitter revolutions' in Arab countries and the 'facebook riots' in England in the summer of 2011. Two 'popular' events – and I use 'popular' here in the sense of 'events of the people' – that used the same network technology for very different aims and with very different outcomes.[5] These events not only demonstrate the potential of 'flat' networks to mobilise people outside of the gaze of those in power – and in this respect we can say that such networks truly operate 'under the radar.' They also highlight the fact that anyone who nowadays wishes to control people, needs to control the flows of information and the modes of communication rather than, as Marx would have it, the modes of production.[6]

The idea that those who want to control other people, need to control information and communication is not a new idea. Educators actually know it quite well and have known it for a long time (see for example Apple, 2004). We could even say that the 'logic' of modern schooling is precisely based on control of information – which, in the context of schooling, is called 'the curriculum' – and control of the modes of communication – which, in the context of schooling, is called teaching, instruction or pedagogy. While the control of information and communication in the school is often done with the best intentions and for good reasons, it is control nonetheless. If we want to look at this from a positive angle, we might say that the idea of the school as a controller of information made sense in a time when it was difficult to access information and, more importantly, to access *reliable* information. Here we have a rather traditional rationale for the school as an empowering institution, based on the idea that knowledge is power. There is of course also a darker side to this, because the very same educational infrastructure can also be used – and has been used and is still being used – for limiting the access to particular useful (or really useful; see Johnson, 1979) knowledge.

Yet we now live in a time in which information is abundant and knowledge comes cheap; a time in which old epistemological hierarchies are breaking down and where the centre can no longer hold. Is this a time in which the school as we know it, the school as a privileged provider of knowledge, has become obsolete? That, for me, would be too hasty a conclusion, one that would only follow from a very simplistic notion of what the school is but also – and that is where I want to start my argument – one which simply *accepts* the global networked society as a given and sees the task of educators and educationalists to figure out how the school can best adapt to this new reality. For me the issue is neither to give up on the school altogether, nor to ask how the school can best adapt. The question for me rather is how the school should *respond* to this new reality, not by simply being responsive but by taking responsibility; a responsibility – so I wish to suggest – which needs to be both educational and democratic. What is at stake here, therefore, is the bigger theme of the relationship between school and world; a relationship that never can be one in which the school is just a function of and thus functional for society, but where, to a certain extent, the school also needs to be *dys*functional in relation to society because, as the French educationalist Philip Meirieu (2008) has argued, education always also comes with a 'duty to resist' ('un devoir de résister').

Starting from here, my paper consists of three parts. I will first explore the idea of the global networked society, raising some critical questions about its different manifestations. I will then focus on the question of education, where I will try to articulate what a responsible educational response to the phenomenon of the global networked society might be. In the final step I connect this with some brief observations about the question of democracy. I do not have the intention to solve all problems with regard to the relationships between networks, education and democracy, but hope to make some critical observations, provide tools for asking more precise questions, and hopefully will contribute some original and useful insights to the discussion.

**The Global Networked Society: Fact or Fiction?**

By asking the question 'fact or fiction?,' I do not wish to position myself as a global networked society denier, but do want to highlight two points. The first is that, to a large extent, the global networked society is not a new phenomenon, and by looking at its historical precursors we can begin to see where there is continuity and what might be really new about the current manifestation of the global networked society. The second point is that I do not want to see the global networked society simply as a *fact*, i.e., as something that is just given and therefore inevitable. I rather want to approach it as a *choice*, a choice made by some and working in the interest of some. Let me begin with the first point.

Although the impression is sometimes given that the global networked society is a new phenomenon, any attempt to understand what is new about the contemporary manifestation of the global networked society has to start from the acknowledgement that networks with a large, if not global reach have been around for a pretty long time. Three impressive examples spring to mind: the Roman Empire; the Catholic Church; and the British Colonial Empire. What we know from history is that the Roman Empire was not only very well organised but also very well networked. It can thus be seen as one of the first examples of a networked society with a significant, albeit it not entirely 'global' reach (although we have to bear in mind that the conception of what constituted the 'globe' was of course different from our modern conception). The Catholic Church is another interesting example of a global network. While it cannot lay claim to being a society in the sense of a nation state, it is definitely another example of a very well connected and well networked structure with impressive global reach. This is also the case for the third example – the British Empire – which, at its height, was the largest empire in history covering, in 1922, not only one quarter of the then world population (it included about 450 million people) but also one quarter of the earth's total land area.

*Centred Networks*

There are lots of traces of these global networks still around – and the Catholic Church simply is still is around, making it one of the longest existing institutions in human history. For the Roman Empire there are not only many physical traces – not only the villa's and baths, but also extensive road networks and basic city plans – but also an ongoing influence of, for example Roman law and the Latin language on contemporary law and language. And while the British Empire no longer exists as an empire, many of its networks are still active and operational, not in the least in Higher Education. What unites these three examples of global networks is that they all operate on the *centre-outpost model*. Not only do all three networks have a clearly defined centre – Rome, the Vatican City and London – but the networks also existed because all outposts remained connected to the centre through lines of command and information. One could say that command flows from the centre to the outposts and information flows from the outposts to the centre so that the centre can keep an overview and remain in control. The decline of the Roman Empire can partly be explained by the erosion of the connection between centre and outposts – the Empire became too big and too complicated to maintain all its networks, also because outposts became self-sufficient and, subsequently, independent. The Catholic Church has been more successful in controlling its outposts. And, as mentioned, many of the networks of the British Empire still function in some shape or form.

*Decentred Networks*

What characterises *centred networks* is that they are based on the principle of asymmetry between centre and margins. Power, information and wealth are clearly located in the centre and the connection between centre and margins is one where the centre exerts power over the margins, where the centre is also in control – and perhaps we could even say in possession – of information, and where the centre is the location where wealth from the margins is collected and accumulated. Network building according to the principles of this model is therefore as much a process of subjecting and incorporating new areas into the network as it is a process of translating and transforming such new areas into the 'logic' and principles of the centre.[7] This, then, is perhaps the main difference between the global networks that have been around for a long time and the networks that are currently emerging as a result of information and communication technology, particularly the internet and mobile phones. What characterises such networks – but with a proviso to which I will return below – is that they are to a much larger extent *decentred networks*, where there are multiple connections across the network but without a centre and without the need for a centre.[8]

Yet before we start celebrating the democratic potential of decentred networks there is one more dimension of the history of global networking that needs to be brought in the mix. This dimension is called *capitalism*. Capitalism, an economic system characterised by private ownership of the means of production and an orientation towards the generation of profit, usually through operation in competitive markets, is clearly a networking phenomenon, and perhaps it is the most influential network phenomenon of the modern age. The main reason for this has to do with the fact that capitalism, in order to sustain itself, needs to *grow*. While, up to a point, the expansion of capitalism could be contained within national markets, the rise of *global* capitalism, a mode of capitalism that is no longer bound by the nation state, is simply an effect of the need for capitalism to expand. It is here that we can see an interesting connection with colonialism which, in a sense started the capitalist cycle of wealth accumulation by using the colonies to source raw materials, but then turned around to use the same infrastructure for selling products thus opening up – sometimes forcefully (such as the 'opening up' of Japan in 1852-1854 by the US Navy; see Feifer, 2006) – ever new markets.

For a long time capitalist expansion was predominantly a *spatial* phenomenon, both in terms of finding new resources and with regard to opening up new markets. Yet the limitations of this strategy have led to a shift in which capitalist expansion has increasingly become *temporal*. A prime example of this is the idea of fashion, which operates on the principle of constantly creating new demand and new desires.[9] We can thus see a constant 'speeding up' capitalism or, stated in different terms, we can see an ongoing time-compression in order for capitalism to sustain itself. But just as it is becoming obvious that capitalism is running out of space – think for example about the statistics mentioned earlier about mobile phone contracts, but think also about the ecological crisis created by ever-expanding capitalism – capitalism is also running out of time. Perhaps the starkest example of the latter is the recent banking crisis which exposed the ways in which the financial industry – and the phrase 'financial industry' is interesting in itself – tries to generate profit by making use of increasingly minimal temporal advantages. (The paradigm case for this is, of course, futures trading.) While capitalism thus generates global networks – and in this sense can be seen as one of the most influential drivers if not shapers of the contemporary global networked society – there is a real question about the sustainability of such networks. And what the banking crisis has shown is the fragility and vulnerability of the networks of global capitalism as they have created a situation in which everything hangs together so that when some part goes down there is a real danger that the whole system will collapse – which was one of the reasons why global capitalism needed to be propped up and saved by governments, a problem that is still ongoing.

*Pseudo-Decentred Networks*

For my analysis of the global networked society the important question is whether capitalism should be seen as generating centred or decentred networks. My suggestion would be to call them *pseudo-decentred networks*. What they share with centred networks is the fact that they both rely upon and are creators of asymmetries, particularly asymmetries in wealth, but also asymmetries in power. What they share with decentred networks is not only the fact that there is not one centre that aims to control the whole network – there are probably many centres – but also, and more importantly, the fact that those who are part of the network are in a real sense implicated in it. They have an *interest* in the survival of the network because if the network of global capitalism would collapse they would probably be worse of (and again this is a very real and ongoing problem).

It is because of these different historical and contemporary dimensions and manifestations of global networks and of the global networked society – and perhaps the word 'the' is actually quite misleading here – that I do not want to accept the global network society as a fact but rather want to see it as a choice; a choice that works in the interest of some and against the interest of others. While my use of the word 'choice' is not to suggest that it is easy or even possible to identify who have made a choice for a particular configuration of the global networked society, I use it to highlight that the global networked society in its current manifestation is not an inevitable reality without an alternative. Unlike what politicians nowadays often tend to say about their policies – which, echoing Margaret Thatcher, is that 'there is no alternative' (something which Zygmunt Bauman has called the TINA-creed; see Bauman, 2000, p. 215) – the fact that the global networked society as it currently exist is the outcome of particular historical developments, means that it not only could have been different but that it still *can* be different, albeit – and this is again one of the ironies and complexities of the global networked society, particularly in its capitalist form – that it is quite difficult to disentangle oneself from its workings. It is very difficult, in other words, to go truly 'off grid' – but it is not impossible to do things differently as, for example, can be seen from a number of banks that were relatively unaffected by the recent banking crisis because they operate on significantly different principles than 'main stream' banks (for example, of co-operative banking, of building societies, and of different varieties of ethical banking).

If this begins to open up the idea of the global networked society, revealing both continuity and discontinuity and, perhaps most importantly, showing its connections with the logic of capitalism, we are now in a better position to ask the question of education, that is: "What kind of education might we need in 'the' global networked society?"

**Education for the Global Networked Society: Responsive or Responsible?**

I am, of course, not the first to engage with this question, although what I have been trying to do differently is not to start from the simple acceptance of 'the' global network society and ask how schools should adjust and adapt to it, but raise some critical question first. What my brief exploration suggests, I think, is that we should be cautious and not simply embrace the global networked society. Although there are some potentially interesting aspects – and I will return to the question of the democratic potential below – I have indicated that the global networked society has a tendency to create and perpetuate inequalities, and I have indicated that the global networked society, at least in some of its manifestations, may result in networks that are extremely vulnerable and volatile, which not only raises the question how much we should 'invest' in such networks (and how much we should invest ourselves in such networks), but also whether there are more sustainable alternatives.

*The Formalisation of the School Curriculum*

When we look at the ways in which educators and educationalists have responded to the global networked society, we can discern a number of different approaches. Several of them start from a reading of the global networked society as a society where there is an abundance of information and where access to this information is generally free. This, as I have mentioned above, raises questions about the privileged role of the school in handing down knowledge to the next generation. Some have drawn the radical conclusion that this makes the school obsolete, but the more common response is one that argues for what I suggest to call the *formalisation* of the school curriculum (i.e., it becomes a matter of form, not of content or substance). Here the focus shifts from the acquisition of knowledge to the acquisition of the skills for acquiring knowledge, now and in the future. Notions such as 'learning to learn' or education as the preparation for lifelong learning fall in this category. A potential problem with these approaches is that they are not only based on a rather narrow view about the function of schooling – I will return to this below – but also on a potentially uncritical view about knowledge, i.e., the knowledge is 'there' and either the school has the task to transmit this knowledge or, if knowledge is everywhere, it has the task to learn students to access knowledge themselves. I am therefore more interested in approaches that argue for the need for forms of *critical literacy*, particularly because the abundance of information raises the question how one can properly select from and make judgements about the information that is available to us. A critical literacy approach can also go one step further by also making the very idea of the global networked society itself a topic for critical scrutiny – for example along the lines suggested above. The focus then shifts from a critical reading of knowledge and information to a critical reading of the world itself (see, for example, Freire & Macedo, 1987).

Such an approach, about which I will say a bit more below, stands in sharp contrast to approaches that uncritically embrace (a particular representation of) the global networked society and simply see the task of education as preparing students for this reality. One example of this is the idea of 21st century skills which is currently big in the USA and, if my observations are correct, is also gaining popularity in other countries. On the website of the 'Partnership for 21st Century Skills' (<http://www.p21.org>) we can read the following:

The Partnership for 21st Century Skills is a national organization that advocates for 21st century readiness for every student. As the United States continues to compete in a global economy that demands innovation, P21 and its members provide tools and resources to help the U.S. education system keep up by fusing the three Rs and four Cs (critical thinking and problem solving, communication, collaboration, and creativity and innovation).[10]

What worries me about the idea of 21st century skills is not only the fact that it seems to suggest yet another one-size-fits-all educational solution for all problems, thus burdening teachers and schools again with unrealistic expectations about what they can and should achieve, but even more the fact that the 'framework for 21st century learning' that 21st century skills purports to offer, takes the global competitive economy – i.e., global capitalism – as its unquestioned frame of reference. As a result the purpose of education becomes (re)defined as making students ready for this 'reality,' and the phrasing even suggests that the global economy simply *demands* this. We can find the economic orientation of 21st century skills also in such claims as that the "P21’s framework for learning in the 21st century is based on the essential skills that our children need to succeed as citizens and workers in the 21st century" and in highly rhetorical statements such as the following:

Every child in America needs to be ready for today’s and tomorrow’s world. A profound gap exists between the knowledge and skills most students learn in school and the knowledge and skills they need for success in their communities and workplaces. To successfully face rigorous higher education coursework, career challenges and a globally competitive workforce, U.S. schools must align classroom environments with real world environments by fusing the three Rs and four Cs.[11]

While I do not wish to deny the importance of work, it is neither the be-all and end-all of education, nor the be-all and end-all of life. It is, therefore, not only rather narrow-minded to tie up education so strongly with the global economy. It is also ironic that while critical thinking is very prominently mentioned as a 21st century skill, the whole framework seems to rest on an uncritical acceptance of the reality of the global networked economy. For me this is therefore an example of a *responsive* – or perhaps we should say: *reactive – response* to the global networked society that, because it simply seems to accept the global networked society particular in its economic manifestation, runs the risk of becoming irresponsible. What then, would a more *responsible response* look like?

*The Question of Educational Purpose(s)*

In order to address this question I would like to take on step back and say a few things about how I think we might productively engage with questions concerning the purpose – or as I will argue: purposes – of education. The problem is that when we ask the question how the school should respond to the global networked society or, even more precise, what kind of education we need might for the global networked society, the language we use can give the impression that education is monolithic, i.e., that it is one thing with only one aim. This continues to be the cause of a lot of confusion in discussions about what schools are for, and it is for this reason that in my own work I have argued that education not only *de facto* functions in relation to a number of different domains, but that it also *ought* to function in relation to a number of different domains. I have found it useful to make a distinction between three functions of education – qualification, socialisation and subjectification – which I also see as three domain of educational purpose. Let me briefly explain what I have in mind.[12]

One important function of education is that of *qualification*, that is, of the ways in which it qualifies children and young people to do certain things. Qualification is about the acquisition of knowledge, skills and dispositions, both those that allow children and students to do very specific things – such as in vocational education – and those that allow children and young people to function in modern society. While some people argue that this is the only thing that schools should focus on – the 'back to basics' phrase is often used in that context, and part of the rationale for 21st century skills is probably based here as well – there has, over the years, been increased attention for a second function of education, that of *socialisation*. Socialisation can be understood as the ways in which through education children and young people become part of particular traditions and practices, that is, of particular cultural, social, historical, political, religious, and so on 'orders.' Again there is a narrow dimension to this that we can find in professional socialisation – that is, picking up the ways of doing and being of a particular job or profession – and a much wider way of thinking about socialisation, for example becoming a good citizen, picking up the values of 'Britishness' (or for that matter any other culture or nation), and so on. Socialisation is, in other words, about becoming part of certain ways of doing, both informal and formal and institutionalised. Qualification and socialisation can, on the one hand, help to make clear what it is that education actually 'does' – which means that the research on the hidden curriculum has a place in looking at education through the lens of socialisation. But qualification and socialisation are also two views of what it is that education ought to be doing. They not only describe functions of education but also domains of educational purpose.

While some again would argue that schools should focus only on qualification and that socialisation is a task of parents and society, others argue that schools have a role to play both with regard to qualification and socialisation – and this is perhaps most explicit in a range of topics and issues that in recent years have been added to the curriculum, such as citizenship education, environmental education, global education, and so on. In addition to these two functions I wish to suggest that there is a third function and dimension of education that has to do with the ways in which education contributions to the formation of the person. In my own work I have called this dimension the *subjectification* dimension of education, and the reason for that is that I wish to focus on the ways in which education contributes to the ways in which children and young people can become subjects of action and responsibility, to put it briefly. Subjectification thus has to do with notions like independence and autonomy, that is, with being the agent of one's own actions – albeit that my phrase 'subject of action and responsibility' tries to capture a conception of human subjectivity that is not selfish or self-centred but always understood as being-in-responsible-relation with other human beings and, by extension, with the natural world more generally.[13]

To make the main point one more time: these three functions of education both describe what education *actually does* – i.e., that it always in some way operates in these three domains – but at the same time it also gives us a framework to ask much more precise questions about what education *ought to do*; it gives us a framework, therefore, to engage with the question of the purposes of education. I don't see the three dimensions as separate, and I also don't think that we can organise education in such a way that it only would focus on one of the three functions – after all, even if one were only to focus on knowledge and skills one would, through this, also socialise one's students into a particular view about what matters in the world and would always also in some way impact on the formation of the person. That is why I think that any educational rationale always needs to have to say something about each of the dimensions. In practice they are difficult to disentangle, which is why I tend to depict all this in the form of a Venn diagram with three overlapping areas of educational function and purpose.

*A Responsible Response?*

When we look at the question as to what kind of education we might need for the global networked society through this lens we can not only begin to locate some of the responses, but also see their limitations and work towards what I would wish to propose as a more *responsible* alternative. If we go back to some of the responses I have mentioned, it can now be made clear that those who say that the school as a transmitter of knowledge has become obsolete in the global networked society and who therefore argue for a formal curriculum – i.e., a curriculum focuses on skills for knowledge acquisition rather than a curriculum organised around content – see the function of the school mainly in terms of qualification. That was behind my remark that these views run the risk of being based on a rather simplistic notion of what the school is and what the school is *for*. An approach like 21st century skills in my view combines qualification and socialisation. The qualification agenda is clear in the claim that children and young people should be made 'ready' for the 21st century and for the demands of the global economy. The socialisation agenda that comes with this is that it depicts education as the server of the global economy – despite, as I have shown, its emphasis on critical thinking. (And a more negative evaluation here would be to say that by giving critical thinking such a prominent position it actually works ideologically, that is, hiding the very power structures through which it operates.)

Approaches that argue for forms of critical literacy are, in my view, more interesting, more relevant and also more responsible, particularly if the aim is not only to make children and young people literate with regard to the content of the curriculum but also with regard to the wider socio-political context. Here one could say that education for the global networked society obtains an explicit political dimension – the literacy, in other words, is not only technical or cognitive, but explicitly political. This means that a critical literacy approach is not confined to the domain of qualification – although it clearly aims to qualify children and students in a particular way – but operates at the intersection between the qualification domain and something else. But the important and difficult question is what this 'something else' is. Is critical literacy located in the intersection between qualification and socialisation? Is it located in the intersection between qualification and subjectification? Is it perhaps located at the very centre of the diagram, that is, at the intersection of the three domains?

The quick way to see what is at stake here is that while proponents of a critical literacy approach might locate this in the intersection between qualification and subjectification on the assumption that to make people literate in reading how power operates behind the scenes, so to speak, can contribute to their independence from the workings of power. This is the classical argument from critical theory and critical pedagogy (see Biesta, 2010b; Galloway, 2012). But the classical critique of this approach is to claim that critical literacy provides students with a very particular perspective on the world that is based on a very particular set of values, and thus is at most a form of political socialisation – and strong critics of critical pedagogy and critical theory would probably claim that it is a form of political indoctrination. There is no easy way out here, but what at least distinguishes a critical literacy approach from other approaches is that it explicitly aims to engage with the subjectification dimension of education; it explicitly aims to support students in developing a stance in relation to phenomena such as the global networked society. It is an educational response, in other words, that aims to support the subjectivity, the becoming-subject, of the student (see also Meirieu, 2008).

My own position in relation to the question about the kind of education we might need for the global networked society starts even more explicitly in the subjectification domain. While I do think that it is legitimate to ask the question how education can help students to be ready for the realities of the global networked society – I am, after all, not denying that these realities are there; what I am denying is the line of argument that says that because they are there they are good and desirable and we should just adapt to them; I am denying, in other words, any suggestion that there would not be an alternative – this can only be done if, *analytically*, we try to understand how manifestations of the global networked society impact on processes of subjectification, processes of becoming-subject and, *programmatically*, if we try to articulate how we might support the becoming-subject of children and young people in light of the different manifestations of the global networked society. In answering this question I would start from the observation that the global networked society – or at least several of its manifestations – is full of temptations, not in the least because of its connection with global capitalism, and thus has a tendency to draw people in. To this comes the fact that the global networked society is indeed to a large extent everywhere, which means that it is quite difficult not to be subjected to its lures.

But to be subjected is precisely the opposite of what subjectification – becoming-subject – is about. Here the old saying that if you stand for nothing you will fall for anything, is educationally very relevant, because to resist the temptations of the global networked society – or at least to make engagement with aspects of the global networked society the outcome of a deliberate decision rather than just an automatic reflex – requires indeed what we might refer to as a certain 'strengthening' of the subject. This is of course tricky terrain – and I will in a moment show that this is only half of the task of education in response to the global networked society – but it can be connected to what I see as one of the most fundamental educational issues or challenges, which is the transformation of what is desired into what is desirable (see Biesta, 2010a; in press). That is to see education as assisting the process where we rise 'above' our desires by always exploring whether what I do desire is also what I should desire, i.e., whether what is *de facto* desired is also desirable. If, for a moment, we use the words 'weak' and 'strong' in a rather simplistic way, we could say that following one's desires weakens subjectivity whereas engaging with the question which of one's desires is actually desirable strengthens subjectivity.

The idea that education has something to do with strengthening the subject – and in this sense with resisting adaptation to what is – does, however, come with a risk, namely that of disengaging the subject from the world. If the subject becomes too strong, one could say, there is a risk that it becomes self-enclosed, shielded off from others, and thus shielded off from the world. Strengthening the subject, resisting the tendency to simply adapt to what is, should therefore not result in a withdrawal from the world. The challenge for education, therefore, is both to strengthen subjectivity *and* support engagement with the world. It is both emancipation and association, in the words of Meirieu (2008, p. 91). One could of course say that this is an impossible task, as it pulls education into two very different directions. I don't think that this is necessarily so because resistance and engagement actually have a different 'object' – there is a need to resist adaptation to what is, whereas there is a need to engage with a world that is not yet, a world of possibilities, a world of alternatives, a world that can be different from what is.

If these suggestions make sense, if they begin to articulate what I would see as a more responsible response to the so-called realities of the global networked society, it puts the school in a very interesting position. Perhaps the briefest way to summarise what I have in mind is to say that we need a school that is *closed towards society but open towards the world*. It is a school that is shielded off from direct demands from society so that an engagement with the world as a world of possibilities, a world of alternatives, becomes possible. It is the school as a space of deferment and suspension, a moratorium. This image of the school fits quite well with one of the original meanings of the Greek word *schole*, which means leisure or free time, which we should not so much see as time where you can do what you want, but time that is not determined by particular demands, particularly not the demands of society (see also Masschelein and Simons, 2010). To say that this puts the school in a very interesting position, is also to say that I do not think that in the global networked society we can do without the school. It doesn't mean that the school becomes obsolete; on the contrary, we need this space free from the immediate demands of society perhaps even more than ever.

This brings me to the third and final step of my paper, which is the question of democracy, about which I will make two brief observations in order to bring the themes of my paper – networks, education and democracy – together.

**Democratic Education for the Global Networked Society?**

I have started my paper by hinting at the democratic potential of the kind of networks that seem to be characteristic of the global networked society, that is 'flat' networks or, as I have called them in my more detailed exploration, *decentred* networks. That such networks have a democratic potential is obvious, but we should be mindful that it is a potentiality, not an actuality. The point is that while it could be argued that democracy is necessarily decentred, this does not mean that every decentred network is automatically democratic. The difference between the twitter revolutions and the facebook riots is a helpful demonstration of this point. While I have characterised both events as popular events, that is events of the people, one could say that they were informed by a different set of values. Whereas the twitter revolutions were orientated towards the democratic values of equality and freedom, the facebook riots to a large extent lacked this orientation, particularly where these riots turned destructive (see also Biesta, 2011b).[14]

The first point to make, therefore, is that decentred networks are only *potentially* democratic, and that it depends on the values that inform the actions of individuals within such networks whether this democratic potential can become actual. Rather than simply to celebrate the democratic potential of the global networked society, there is a need for hard work and constant vigilance if, that is, we are interested in making this democratic potential in some way real. For this it is also important to be aware of the potential threat of what I have referred to as pseudo-decentred networks, that is, networks that while lacking an obvious centre of control, are nonetheless contributing to the production of asymmetries and inequalities. Again this proves the point that there is no such thing as 'the' global networked society – there are a number of different manifestations of it, and we need to look very carefully at the differences that manifest themselves.

If we are interested in making the democratic potential of the global networked society real, it is not only important to acknowledge that this requires that our actions are informed by an orientation towards the democratic values of equality and freedom – even fi they can only exist in a paradoxical tension (see Mouffe, 2000). It is also important to see that a democratic orientation towards freedom is not simply about maximising one's own freedom but is about maximising the freedom of everyone – which means that in a sense the democratic orientation is first and foremost an orientation towards the freedom of others. What this means in practice is that we should not understand democracy in arithmetical terms, that is as a process of expressing and counting preferences, but as a transformative process in which there is always the question whether the preferences that are expressed can be legitimately 'carried' by the collective. It is at precisely this point that we can see a similarity between education and democracy in that both education and democracy come with a requirement for not simply accepting what is desired or preferred, but for transforming such desires and preferences into what legitimately can be seen as desirable (a theme I explore in more detail in Biesta, 2011b).

This is then where the educative and the democratic intersect, precisely because in a sense they come with the same 'demand' or the same challenge of *not* to live one's life by one's desires, but always to ask whether one's desires are truly desirable. One might argue that what is different in the case of democracy is that a judgement about what is desirable always brings in the perspective of others, so that the judgement as to whether certain preferences can indeed be seen as desirable always need to engage with the question how my preferences interfere with the preferences of others. This is what I meant with the question whether certain preference can legitimately be 'carrier' by the collective. I wish to suggest, however, that this is actually not different in the case of education. If I am correct that the challenge for education is the double challenge of strengthening subjectivity *and* supporting engagement with the world, then any judgement about the question whether what one desires is also desirable necessarily needs to bring this worldly dimension, which the dimension of the other, into consideration. From this angle – but with a rather different set of assumptions and ideas – I do think that John Dewey was right about the intrinsic connection between democracy and education, in that education is necessarily democratic just as democracy is automatically educative. Or to be a bit more precise: that 'good' education as outlined here is necessarily democratic, just as 'good' democracy as outlined here is automatically educative.

For the discussion in this paper this means then, that the responsible response to the phenomenon of the global networked society that I have tried to outline points in the direction of a connection between school and world that is necessarily of a democratic nature.

**Conclusion**

In this paper I have tried to formulate an answer to the question what kind of education we might need for the global networked society. On the one hand I have offered some conceptual tools for formulating more precise questions about the relationship between education and the global networked society. For that I have made a distinction between different qualities of global networks – the distinction between *centred*, *decentred* and *pseudo-decentred* networks – and between different functions of education and different domains of educational purpose – the distinction between *qualification*, *socialisation* and *subjectification*. In my paper I have taken what could be characterised as a political approach. Although I would see that as a fair characterisation – I have, after all raised questions about power, interest, asymmetry, and inequality – I would also, and perhaps first and foremost, characterise my response as an *educational* response, perhaps with the explanation that for me education cannot be done or understood outside of the domain of the political. The reason for this is that for me education is itself never a value-neutral 'technical' enterprise, but rather what I would call an *interested* endeavour. And I have tried to make clear that for me the main, and perhaps even the ultimate educational interest is an interest in the human being as a subject of action and responsibility. That is why I have warned against a too optimistic embrace of the global networked society and why I have questioned educational responses that are just *responsive* in that simply accept the global networked society and see the only task of education as that of making children and young people ready for this reality. While my argument does not amount to a wholesale rejection of the global networked society, it points at a need to resist at least aspects of the global networked society. In order for this to be possible we need spaces where the 'demands' of the global networked society can at least be suspended. I have suggested that the school could and should be such a space. While this means that, as I have put it, the school should in this respect be closed towards (the demands of) society I have argued that at the same time it should be open towards (the possibilities of) the world. It should be closed towards what presents itself as given and inevitable and should be open towards a world of possibilities, a world in which there are always alternatives. It is here, in the school's openness towards the world, that I see the educative and the democratic interest come together (see also Winter, 2011). That is why, in conclusion, I wish to argue that a responsible educative response to the global networked society has to be a democratic one.

**Notes**

1. An earlier version of this text was presented as an invited keynote address at the 14th biennial conference of the European Association for Research on Learning and Instruction (EARLI).

2. Ssee <http://www.bbc.co.uk/news/10569081> [last accessed 4 September 2012]

3. See <https://www.wirelessintelligence.com/analysis/2011/07/china-to-surpass-1-billion-mobile-connections-in-may-2012/> [accessed 4 September 2012]

4. See <http://www.them.pro/One-billion-mobile-phone-subscribers-China> [accessed 4 September 2012]

5. While I am suggesting that the aims and outcomes of both events were 'very different' – which at one level they were – there is not only more to say about the 'popular' character of both events, i.e., the fact that they both were events of the people that were aimed at interrupting a particular order (on this see also Biesta, 2011a). I also think that the riots in England provide us with a very graphic image of what bankers and others working in the financial industry have been doing outside of the public gaze.

6. This is not only well known in China where there are ongoing issues about access to the world wide web, but also in the UK where the government, in response to the street riots of 2011, suggested that it should have the power to black out social networking sites during civil unrest. The Chinese government could indeed not resist pointing out the irony of this suggestion.

7. Bruno Latour's *Science in Action* is an interesting example of the analysis of the operation of modern science according to these principles – see Latour, 1979.

8. Complexity theory with its notions of emergence and self-organisation is particularly suited for understanding the dynamics of such decentred networks (see, for example, Cilliers, 1998; Osberg & Biesta, 2010).

9. See, for example, IPhone 3, IPhone 4, IPhone 5, but we can also think how a company such as Hennes and Mauritz operates with cycles of about 3 weeks for bringing new clothing designs into their shops

10. See <http://www.p21.org> [accessed 4 September 2012]

11. See <http://www.p21.org> [accessed 4 September 2012]

12. These ideas are discussed and developed in more detail in Biesta, 2009 and Biesta, 2010a.

13. The reason to prefer the word 'subject' is partly a technical/philosophical one (see Biesta, 2010a for more detail). I could also have used the word 'person' there (although the technical argument here is that person is a more individualistic notion that subject). The word I would not prefer to use in this context is that of identity. Identity for me has to do with question of 'identification with' and therefore belong more to the domain of socialisation. Also identity for me is more a psychological and sociological than an educational notion.

14. I am aware that more complex readings of the difference are possible and probably also necessary as the facebook riots can at least partly be understood as an expression of a certain desire for equality. That is why I am highlighting the fact that they turned against the values of equality and freedom when they became destructive, thus blocking the freedom of others. While – again to a certain extent – I can understand such a response in the light of the banking crisis and the destructive effects this has had, it does not justify the riots, nor, of course, is there any justification for the amoral and destructive behaviour of bankers, and perhaps we can add: of the global financial network itself.

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