

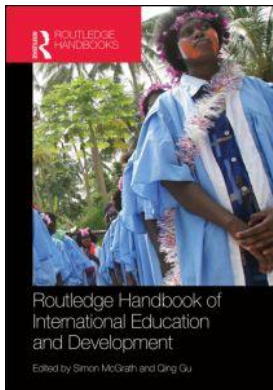
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### **Education as a Humanitarian Response as a Global Objective**

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# 3

## EDUCATION AS A HUMANITARIAN RESPONSE AS A GLOBAL OBJECTIVE

*Colin Brock*

*Man is without doubt the most intriguing fool there is.*

(Mark Twain 1909)

### Introduction

There is also no doubt that education is a human right, as declared by the United Nations early in its existence (1948). The problem is that what was in mind was formal education, with basic schooling as the minimum, but schooling is not the same as education. Indeed it is only a small part of the education of an individual and then only if it can be obtained at all. Successive Global Monitoring Reports (GMRs), covering the progress of the international policy Education for All (EFA) since the onset of the third millennium, continue to show that many countries have yet to achieve universal basic education. Gender parity at that level, a Millennium Development Goal (MDG) target for 2015, is also far from being achieved.

However, Article 26 of the Universal Declaration of Human Rights (UDHR) is worth looking at in detail because it provides a benchmark for what was regarded by the UN as a humanitarian response to educational need. Article 26 of the declaration has three parts and reads as follows:

1. *Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory. Technical and professional education shall be made generally available and higher education shall be equally accessible to all on the basis of merit.*
2. *Education shall be directed to the full development of the human personality and to the strengthening of human rights and fundamental freedoms. It shall promote understanding, tolerance and friendship among all nations, racial and religious groups, and shall further the activities of the United Nations for the maintenance of peace.*
3. *Parents have a prior right to choose the kind of education that shall be given to their children.*

It is immediately clear that this article of the universal declaration is problematic in terms of its own internal consistency as well as in its relation to a concept of education as a humanitarian response that has to do with such situations as conflict and post conflict; refugees and internally displaced peoples; disadvantaged children; natural disasters; and indigenous minorities, nomads

and other travelling communities. Such a notion lay behind the decision of the writer to name his UNESCO Chair at the University of Oxford (2005–12) *Education as a Humanitarian Response* and to give that title also to one of what is today called the ‘impacts’ of the project: a series of 13 books, only two of which remain to be published at the time of writing (see, for example: Paulson 2012; Demirdjian 2012; Smith-Ellison and Smith 2013; Smawfield 2013; Griffin 2014). In all these, and other relatively short-term responses to need, the objective is nearly always the restoration of the *status quo ante*. This means that the opportunity to reform educational provision, usually formal schooling, is missed. But the replacement of the existing system is what recipient governments expect and require. Humanitarian agencies, whether multinational or bilateral, have no authority to reform in relation to possible future needs of the country concerned.

However, the core book introducing the series, *Education as a Global Concern* (Brock 2012), takes a much broader and more fundamental view that, in effect, responds to aspects of Article 26 in the Universal Declaration of Human Rights, though it was not directly designed so to do. The aim of this chapter is also to take this broader, indeed global, view of education as a humanitarian response to the unprecedented and mostly imminent challenges of the twenty-first century. These are challenges to human and environmental survival and sustainability (Martin 2006). Some are widely known and contended in the wider media, such as climate change and biodiversity survival. Others relate to the equally challenging effects of powerful political and corporate self-interest on educational policy that severely constrain the potential contribution of education, in all its forms, to play its crucial part in reaching the fundamental goal in saving planet Earth and its human populations.

Education is not a panacea, yet much of the widespread conventional wisdom thinks it is. But in its different forms, it is an essential dimension of survival. In this holistic sense, it has to be humane to play its vital part. This is the wider scenario of education as a humanitarian response.

### ***Homo sapiens*, wisdom and education**

Arguably the most outrageous and arrogant act of humankind has been to designate its own species as ‘sapiens’: wise. Successive writers, including Orr (1994) and Martin (2006), have illustrated this delusion in respect of what education should be for.

Much of the current debate about educational standards and reforms, however, is driven by the belief that we must prepare the young only to compete in the global economy. That done, all will be well, or so it is assumed. But there are better reasons to reform education which have to do with the rapid decline of the habitability of the earth. The kind of discipline-centred education that enabled us to industrialise the earth will not necessarily help us to heal the damage cause by industrialisation.

(Orr 1994: 2)

Orr goes on to quote Kennedy (1993), who calls for “nothing less than the re-education of humankind” (p. 331). That education needs, by definition, to be humanitarian.

Yet education, that is to say ‘learning and teaching’, is clearly something that already sets humankind well above all other forms of animal life. Unfortunately, humans do not see themselves as animals even though they are more destructive of their own species, and of the environmental systems on which they depend, than is any other species. Current (2014) bloodletting in the Middle East, Ukraine and Central Africa testify to this. Article 26/2 of the abovementioned UN declaration calls for education to work for the maintenance of peace between nations and racial and religious groups. But the UN is a club of nations, as implied in Article 26/1, regarding

the provision of formal education, and Article 26/3 potentially compromises this by stating that parents should have the right to choose the kind of education their children receive.

Certainly education of all forms can lead to the acquisition of knowledge and skills. A crucial question is, what has this led to? There seem to be three main products: data, cleverness and technological advance, and these are not being utilised wisely. Morozov (2014) outlines this in the title of his book: *To Save Everything Click Here: Technology, Solutionism and the Urge to Fix Problems that Don't Exist*. Or, as Orr puts it:

The truth is that without significant precautions, education can equip people merely to be more effective vandals of the earth. If one listens carefully, it may even be possible to hear the Creation groan every year in late May when another batch of smart, degree-holding, but ecologically illiterate Homo Sapiens who are eager to succeed are launched into the biosphere.

(Orr 1994: 5)

Ironically the most crucial product of education is missing, wisdom. Without that, there can be no true species called *Homo sapiens*. Somehow education has to be reformed to enable that essentially humane quality to emerge, and fast. Otherwise it will not only be those currently disadvantaged by poverty, as well as disasters, that need education as a humanitarian response. In fact, we all already do, but Article 26 of the UDHR is unrealistic and unhelpful in this regard, largely due to issues constraining education, especially nationalism, that had developed and become entrenched long before the UN became a belated, though well-meaning, institution.

### **Issues of scale, imperialism and convention**

Education – formal, nonformal and informal – operates on a range of scales from 1) local to 2) internally regional (e.g., the provinces of Canada) to 3) national to 4) externally regional (e.g., the European Union) to 5) global. This has to do with place and space as well as scale, in other words the geography of education (Brock 2013). We need also to consider the temporal scale of educational activity.

One of the roots of the humanitarian problem is the way in which a near global curriculum has emerged over centuries, become a convention serving the interests of nationalism, corporatism and competition and spread by imperialism (Carnoy 1974). This also includes educational aid distributed as part of humanitarian responses to need (Hayter 1971). Indeed Hayter (1981) goes further in identifying humanitarian aid as a significant contribution to world poverty. According more recently to Birrell (2014), major NGOs are now complicit, favouring “lucrative work on modish concepts such as conflict resolution, capacity-building and governance” (p. 18). He continues: “highly paid charity chiefs cuddle up to governments to promote the illusion they can spur democracy and development despite evidence that torrents of foreign aid prop up repressive regimes, fuel corruption and foster conflict.” Birrell’s analysis comes directly from the 2014 Report of Médecins Sans Frontières (MSF), an aid agency that is certainly humanitarian and includes health education in its work. The labelling of major aid agencies and NGOs as proxy corporations is certainly true of the multilaterals and bilaterals. Others, officially nonpolitical, have simply grown too big, with massive bureaucracies and management systems derived from the business world. On the other hand, there are thousands of small NGOs throughout the world that operate on a local scale and engender self-help, such as *Practical Action*. The majority are indigenous, local, and are of course exempt from the criticism of MSF.

*Practical Action*, based at Rugby, UK, and formerly known as *Intermediate Technology*, was founded by E.F. Schumacher, author of *Small Is Beautiful: A Study of Economics as if People Mattered*

(1973). Schumacher's basic tenet was that "production from local resources for local needs is the most rational way of economic life". This could be applied to education, as it is a curious by-product of globalisation in the form of Information Communications Technology (ICT) that a global/local direct connection has developed. This has the potential to bypass the intermediate scale, that of the national. We shall return to that later but first need to consider the dead, and correspondingly inhumane, hand of nationalism on educational development.

The national scale of operation has dominated formal education since the advent of modern Western nation-states in the eighteenth and nineteenth centuries (Green 1990). With respect to Europe, Dodgson (1987) described this development in political geography as moving from control over groups of people to control over territory containing people. Emergent states developed formal education systems using majority vernaculars such as English in England and German in Prussia rather than the exclusive Latin of the privileged minority. Compulsory schooling up to the secondary level with centrally devised, and controlled curricula became the norm. The grip of the churches was gradually overcome so that natural sciences and humanities became part of a curriculum model spread by European colonialism to nearly all parts of the world (Taylor and Flint 2000). The few nations hardly touched by what Altbach and Kelly (1978) termed "classical colonialism", i.e., occupation, such as China and Japan, chose to acquire the European model, termed by Mallinson (1980) the *Western European Idea of Education*, as part of their modernisation revolutions in the late nineteenth century. Thus a virtually universal schooling and curricular model became a near-global convention. The recent advent and increasing influence of the Paris-based Organisation for Economic Co-operation and Development's (OECD) *Programme for International Student Assessment* (PISA) is serving to fortify and spread this conventional curriculum. Indeed it narrows it even further by concentrating on a few subjects that are, purely by conventional wisdom, deemed to be more important than others. According to Meyer and Benavot (2013), most industrialised countries and an increasing number of less developed are operating under the 'global governance' of PISA.

This is highly problematic because it strengthens and exports the conventional idea that a group of subjects, with an elite core, constitute a curriculum. They don't, as Belth (1965) explained half a century ago:

In addition to the innumerable unconscious absorptions which occur, whatever modes of thinking the student may use are made available to him by the curriculum which is woven about him in the activities of education.

(p. 261)

By education, Belth does not mean only schooling. He means the totality of the learning experience, informal and nonformal as well as formal. In other words, the experience of humanity. School is not society; neither is it community. Consequently, it is not humane in itself, not necessarily in an oppressive sense but in a more subtly invidious way, because the curriculum has become a convention driven by nationalism and competition. It is not fit in terms of meeting the imminent and unprecedented challenges of the twenty-first century (Brock 2014b).

It is also inhumane in that the purpose of formal education has become a cog in the neo-liberal corporatist project devoted to increasing profit for the few. Curiously, the educational establishment seems to accept this, but other more perceptive voices do not, such as the author and playwright Alan Bennett (2014):

I have no time for the ideology masquerading as pragmatism that would strip the state of its benevolent functions and make them occasions for profit. And why roll back the

state only to be rolled by the corporate entities that have been allowed, nay encouraged, to take its place?

(p. 35)

Neoliberalism has become entrenched as a near-global convention not only since its popularisation among the political elite of the USA and UK from the 1980s but in fact dates back at least to the incorporation of state education from the late nineteenth century, beginning in the USA. Indeed, it goes back even further in the sense that the beginnings of formal schooling in medieval Europe emerged under the combined influence of a wealthy, near-universal Catholic Church, with universities devoted to serving that church and merchants seeking numerate and literate employees (Brock 2010). The state education systems that emerged from this became increasingly selective as populations grew with industrialisation and economic diversification. Seeking to serve the economy became a dominant function to the detriment of a liberal education, as Grayling (2002) has observed:

Education, and especially ‘liberal education’, is what makes civil society possible. That means it has an importance even greater than its contribution to economic success, which, alas, is all that politicians seem to think it is for.

(p. 157)

As national populations have grown, the condition of increasing anonymity has led to credentialism as the basis for selection for professional and technical employment. This is in harness with other indicators of selection that act as mediators, such as those identified by Hopper (1968) as: 1) aristocratic (by birth); 2) paternalistic (by favour); 3) meritocratic (on pure merit); and 4) collectivistic (by general agreement). Oxenham’s (1984) perceptive title *Education Versus Qualifications* also rightly infers that formal teaching and learning have become merely instrumental and technocratic. Certainly they no longer, if they ever did, relate to the call in Article 26/2 of the UDHR that “education shall be devoted to the full development of the human personality”, an aspiration that certainly qualifies as humanitarian on a global scale. Being devoted to instrumental ends is unwise, as implied by Martin (2006) in the culminating and overarching of his seventeen challenges of the twenty-first century, namely closing the “skills-wisdom gap”.

### Global challenges of the twenty-first century

Martin is not the only prominent figure to stress the urgency of identifying and preparing to meet these challenges, but he is the only one to spell out a comprehensive list – seventeen in all – of challenges that face humankind in the short and medium term. But we need first to acknowledge his practical actions, and those of others, in seeking to engender a wider understanding of unprecedented but very likely events.

James Martin, a physicist turned computer scientist, founded and endowed the Oxford Martin School (OMS) in 2005. According to its current website, it now has more than 300 researchers at Oxford and elsewhere “working to address the most pressing global challenges and opportunities of the 21st century”. It is necessarily interdisciplinary and requires that “research must tackle issues of a global scale”, adding that the OMS was “founded with the belief that this century, and specifically the next two decades, is a crucial turning point for humanity”. It has many affiliates, including the Future of Humanity Institute in the Faculty of Philosophy at Oxford, that enquire, according to its website, into the “big-picture questions about humanity and its prospects”. That Institute is also connected with The Centre for the Study of Existential

Risk at the University of Cambridge (CSER), founded in 2011 and headed by the eminent cosmologist and astronomer Martin Rees of Trinity College. It could be that James Martin was inspired to act by the book *Our Final Century: Will the Human Race Survive the Twenty-First Century?* (Rees 2003) and the TED lecture of Martin Rees in 2005 on *Is This Our Final Century?* (Rees 2005). At the time, Rees gave the human species a 50/50 chance of surviving this century.

According to its website, CSER “is an interdisciplinary research centre focussed on the study of human-extinction level risks that may emerge from technological advances” by engaging “the best minds across disciplines to tackle the greatest challenge of the coming century: safely harnessing our rapidly developing technological power”. Its cofounders, Rees together with Hugh Price (a philosopher) and Jann Tallin (cofounder of Skype), are the subject of an article in *Guardian Weekend* (Martin 2014) by Andrew Martin that also includes Sir Patha Dasgupta, an economist and Cambridge advisor of CSER. It contains some engaging and instructive insights into the risks involved, including an extract from the 2005 Rees TED Lecture:

In our interconnected world, novel technology could empower just one fanatic, or some weirdo with the mindset of those who now design computer viruses, to trigger some kind of disaster.

(p. 37)

Four other ‘worst case possibilities’ are discussed: the *disaffected lab worker* who spreads viruses through global air travel; the *termination risk* caused by stratospheric aerosol geo-engineering; *distributed manufacturing* leading to nanoscale manufacture of military grade missiles; *artificial intelligence escaping into the Internet* with devices communicating between themselves. Andrew Martin describes a computer as “a sort of idiot savant”. This is important with regard to what has been termed *The Singularity*, “the point at which humans build their last machine, all subsequent ones being built by other machines” (Martin 2014: 41). We will no longer be able to switch them off.

At the level of higher education, but only a tiny part of it in a few universities, there is a hopeful, rapidly emergent sector that recognises the urgency of the range of threats to human and environmental survival, some of them in the very near future. What is also needed is an engagement at all other levels of education with these challenges. Martin (2006: 226–236) has identified the following, presented here in paraphrased form:

1. *The Earth*: stop actions leading to climate change, polluting rivers and lakes, breaching the ozone layer, wasting fresh water.
2. *Poverty*: all nations need to reach a “decent literacy rate” and adequate levels of employment.
3. *Population*: overpopulation needs to be curbed by raising the educational levels of women and improving lifestyles.
4. *Lifestyles*: twentieth century lifestyles cannot be sustained, but technology has the potential to support new, comfortable lifestyles in keeping with sustaining the environment.
5. *War*: the existence of weapons capable of ending civilisation makes this a very different century from any before. Weapons control and eradication is essential for survival.
6. *Globalism*: this is already here but must be adjusted to allow unique cultures to survive. Localism is vital to sustainability. The global/local link is fundamental.
7. *The Biosphere*: global management of the biosphere is essential, including a computer-inventoried knowledge of all species.
8. *Terrorism*: all grade uranium and plutonium must be locked. Causes of terrorism must be eradicated, including mutual respect of all religions for each other to prevent their perversion.

9. *Creativity*: creativity must be supported by current and future levels of technology in the interest of innovative interventions to progress sustainability.
10. *Disease*: increasing potential for pandemics (including terrorist generated) must be resisted by appropriate defences.
11. *Human Potential*: most people today “fall outrageously short of their potential”.
12. *The Singularity*: this is the chain reaction of computer intelligence. It needs to be controlled to enable appropriate education of young people to cope with self-evolving technologies.
13. *Existential Risk*: there are risks that could lead to the termination of the human species and demand immediate resolution as to controlling science. This is essential because current estimates give us only a 50/50 chance.
14. *Transhumanism*: nanotechnology will change human capability, creating advanced civilizations, but also an increasingly wider gap between rich and poor.
15. *Advanced Civilization*: this will permeate cyberspace and affect decisions relating to the management of planet Earth.
16. *Gaia*: we must learn to live within the constraints of the Earth’s natural balance of species and environments. Failure to do so will be catastrophic.
17. *The Skill-Wisdom Gap*: science and technology are accelerating furiously, but wisdom is not. We need more interdisciplinarity in education and less corporate greed in the economy.

Clearly, the conventional and near-global view as to what education is for is totally inappropriate if we subscribe to the current view that it is for the support of national and corporate wealth, power and competition. Lack of substantial and rapid reform towards enabling education to meet the challenges listed above would, in effect, be a crime against humanity. Richard Aldrich (2010), the distinguished historian of education, has identified two phases of the purpose of education to date and a third that needs to be activated without delay. They are: education for salvation, education for development and education for survival. We are still in the second phase; to enable us to move into the third, we need nothing short of a curricular revolution on a global scale, one that will serve “a notion of wealth that includes natural capital” (Martin 2014: 41) and not just global neoliberalism with its purely economic objective of profit. To consider this, we need to briefly reprise the issue of selection and move on to subjects and curriculum.

### Selection, subjects and curriculum

The nature of curriculum, defined in the *Oxford English Dictionary* both as “a collection of subjects” and “any educational activity,” is determined by the aforementioned underlying function of education systems to be selective. This may be explicit, where the outcome of examinations of various kinds determine different pathways with clear titles such as ‘academic’ and ‘technical/vocational’. Or they may be implicit as described by Sir Ken Robinson when, in his celebrated TED lecture of 2006, he illustrated the higher status of the ‘academic’ by suggesting that the ultimate product of selection turns out to be university professors. As we have seen above with reference to the Oxford Martin School and the Centre for the Study of Existential Risk, it is at this level that vital information about the imminent challenges of the twenty-first century is being illuminated. But to meet those challenges on a global scale involves a distillation to the level of curricula in schools. But at this level, selection is never purely on educational grounds, as encapsulated in the question posed by Timmons (1988): “Selection, educational or social?”, and the duplicity involved:

Educational systems in highly industrialized countries face a constant and probably insoluble problem. They have to provide at least a semblance of equality of educational



opportunity and they have also to ensure that occupations of various levels of responsibility and skill are catered for. In other words they have to act as sorting houses. They are vast selection mechanisms.

(p. 157)

Despite Article 26/3 of the UDHR, Timmons contends that “selection cannot remain solely parental” (p. 158), though in England, certainly, parental wealth and social class, working through a private sector that is uniquely large, this is a determining factor. For the majority, however, progressive selection through schooling is determined by examination scores and the capacity of institutions at each successive stage. Even if fair, these tests tell us only a tiny proportion of what each individual actually knows. In reality, one of the basic problems of humanity dealing with itself in a fair way is that we just don’t know what any individual actually knows nor often what talents lie latent. Howard Gardner (1983) made a valuable and humane contribution to dealing with this problem with his concept of multiple intelligences, but it has rarely been embraced by the educational establishment. Somehow we have to subvert the global conventional curriculum from within.

The first problem to be faced is that of subjects, or as Hunt (1970) put it: “the tyranny of subjects”. His main argument is that individual subjects do not fit with the way people, and especially children, learn most effectively, cutting into the more natural way in which skills are acquired: “a skill is a useful technique: you acquire it when you need it for a tangible purpose. A subject is something that educational tradition says you ought to learn whether it is useful or not” (p. 45), beginning with reading.

Reading has become a subject. You see it as “work”, something separate from your normal play activities. Soon, other subjects are added. By the time you reach secondary school, you are confronted with a bewildering array of them. They take up most of your day and they tend to come at you in forty minute slabs. You are expected to be equally interested in all of them. But not too interested because soon the bell will go: “Put your books away and get ready for the next lesson”. . . . At the end of five years, if you collect enough certificates, you will be recognized as an educational success. But what will you really have learned?

(Hunt 1970: 45–46)

Another way of critiquing the concept and practice of subjects is to consider them against the notion of the seamless coat of learning advocated by Alfred North Whitehead (1929), who strongly advised against what he called “scraps of information.” Evans (1998) encapsulated Whitehead’s contribution in the following terms:

Whitehead wrote of many aims of education but one strikes me as paramount and to lead to the rest. That aim, which I choose to identify as the principal Whiteheadian goal, is to achieve a balanced education, the fruit of which is wisdom. Balanced education, as Whitehead advocated it, is one of the right mix of necessary specialisation and equally important generalisation.

(p. 90)

So there are precedents for advocating a more humane curriculum for what the writer described as “The Dysfunctional Mainstream” (Brock 2012), but they have been trampled by the stampede towards international competition based on league tables. All this is leading in the

wrong direction in the face of the challenge of twenty-first century survival, by far the largest humanitarian project yet.

A radical reform is required not a 'tweaking' here and there because the existing curricular structure has slowly emerged to support numerous nationalisms. So a logical place to begin is to relate Martin's seventeen 21st century challenges to a new curricular scheme. Some can be conflated but none ignored, nor can the fundamental requirement of sufficient levels of literacy and numeracy.

(Brock 2014a: 135)

As the subject components are so conventionally embedded, and also as the timeframe for reform is short, we need to relate clusters of current curricular components to key themes in the discourse of those working on the frontiers of the human and environmental threats in such outposts as The Oxford Martin School and the Cambridge Centre for the Study of Existential Risk. The writer has proposed four clusters for initial discussion (Brock 2014a: 135–136): A. *Communication*; B. *Gaia and the Biosphere*; C. *Poverty and Population*; D. *War and Terrorism*. They are all interconnected in that new forms of communication such as advanced ICT and social media are involved, for example, in researching and teaching, formally and informally, about rapid environmental degradation; population pressures due to increasing fertility and massive migration; and violent conflict relating to such issues as religious fundamentalism, water resources and land grabs. We may visit each cluster in turn.

The cluster Communication services everything else. It means a more sophisticated idea of literacy and numeracy that would comprise language, mathematics and ICT in an integrated way, rather than as two 'subjects'. Currently, mathematics is seen as being primarily related to science whereas it is simply a form of communication that uses numbers and symbols rather than words and sounds. Challenge number eleven (11) in Martin's list (the majority of humankind failing massively to reach their full potential) is very clear in terms of mathematics partly because it is seen as something that goes with science in the school curriculum rather than being a form of language and communication. Selected modern languages would be included in this cluster, as would expressive and performing arts. This cluster should be maintained as part of the school curriculum throughout, from primary school to the end of compulsory schooling, as it carries with it the tools of creativity. In the title of his 2006 TED lecture, Sir Ken Robinson asked '*Do Schools Kill Creativity?*' The answer, is, as he argued, 'yes'. Communication skills to serve creativity should also be at the core of further and adult education.

The cluster Gaia and the Biosphere would comprise an integration of the four basic natural sciences. Currently, only three figure in most curricula: biology, chemistry and physics. Geology should be added and act as the core, incorporating physical geography and climatology in providing an environmental context ranging from the edge of the earth's atmosphere to the contents of the earth's crust, or lithosphere. The concept of 'Gaia' put forward by James Lovelock and Lynn Margulis in the 1970s should be the central theme: being a self-regulating complex of organic and inorganic forms that maintains the balance of all forms of life to survive. It is threatened by the reckless activities of *Homo sapiens* in search of wealth and profit, hence the aforementioned call for an understanding of 'natural capital'. Accepting and understanding climate change, as outlined in *The Goldilocks Planet: The Four Billion Years Story of Earth's Climate* (Zalasiewicz and Williams 2012), is essential at the school level and is perfectly feasible, as well as the necessary balance between the human, animal, plant and marine components of the earth. As Martin (2006) has warned:

Perhaps the greatest catastrophe that could befall us would be that we inadvertently push Gaia so that positive feedback causes it to become unstable or to change to a

different state. Our Earth may become a roasted planet with tundra, inhabitable only by a small number of humans – probably near the poles.

(p. 234)

He adds: 'Gaia does its own thing and we must learn to live within its constraints' (p. 235).

The third cluster, Poverty and Population, would be served by the social sciences, with demography in the lead assisted by human geography and anthropology, history, economics, politics and sociology. The number of people on the Earth already, together with, in global terms, an exponential rate of growth, likely to reach 10 billion by 2050 (Emmott 2013), is one of the main factors threatening human and environmental survival. Population change and structure should be included rather than just crude overall figures. Issues such as gender balance, age structure, occupational structure and religious affiliation should be included. Of course, this threat of overpopulation, as with that of climate change, is differential in its likely level as between different parts of the world. In crude terms, the already favoured temperate latitudes, including North America, much of Northern and Western Europe and East Asia, may well even benefit from the climate change that seems to be likely. This is engendering complacency and leading to political inaction, a very unwise stance when looked at in terms of the growth of poverty and related human migration.

The final cluster, War and Terrorism, is important because of the propensity of *Homo sapiens* for violent conflict, destruction and sheer inhumanity on an enormous scale. This is celebrated in conventional curricula lauding success in battles, empire building and subjection. There is a great deal of misinformation in history syllabuses on such issues. To most people, films and television programmes showing violence are widely popular, as are murder mysteries in print. While routine religious issues would be in the previous cluster, issues of fundamentalist and extremist religious views need to be here, both in a historical and contemporary perspective. Terrorism is a feature of modern human society that needs to be studied at this level so as to distinguish it from legitimate defence, as do the actions of some countries to take, or settle in, the territory of others with impunity.

Some might think that the above clusters are no different from existing subjects, but the central point is that they are not being focussed in the same way. It is not beyond the wit of modern humankind, with sophisticated computers at their disposal, to develop school timetables that will allow for a combination of specialist classes in the various disciplines and integrated thematic classes alongside. The balance between these two curricular components would depend on the nature of different subjects, as some require sequential learning and others do not. Certain life-supporting processes such as soil formation, photosynthesis and biodiversity can and should be introduced at the earliest possible stage. They are perfectly amenable to simple and attractive explanation with young children, including field work on site or nearby. The main objective is to shift the meaning of formal schooling from solely preparing for employment in a way that, it is imagined, can contribute to economic capital to add an understanding of the crucial and urgent need to value natural capital.

## Conclusion

The discourse above may not have been what most readers had expected from a chapter on education as a humanitarian response. There is nothing wrong with education being part of humanitarian responses to need in situations of disaster or disadvantage such as those listed at the beginning of this chapter. Such work needs to continue and indeed increase, but the argument presented here is that unprecedented challenges that are almost upon us threaten humanity

itself. Most of them are the result of human actions. This means that the prime purpose of learning and teaching must be the greatest humanitarian education exercise ever, to save itself and the environment of planet Earth. Ironically, one of the most sophisticated tools yet devised by the cleverness of humankind, the computer, could become the imposter or the saviour. That depends on whether we can control it and avoid the Singularity. If we can, then technological advances may help save us and the planet. If we cannot, then we are doomed, as Emmott (2013) predicts.

James Martin (2006) concluded that the most crucial of his challenges of the twenty-first century is to close the skills-wisdom gap. He was right. Human cleverness can deal with skills development, but only wisdom may save us. We need to earn the title 'sapiens' through bringing creativity to the core of our education, and fast. There is not much time left to exercise education as a humanitarian response for our meaningful survival beyond this century. If we fail, then 'sapiens' will be seen to have been a mere soubriquet.

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