Battling for the Soul of Education

Moving beyond school reform to educational transformation

The findings and recommendations of 3 decades of synthesis

www.battlingforthesoulofeducation.org

Education 2000 The 21st Century Learning Initiative Born to Learn

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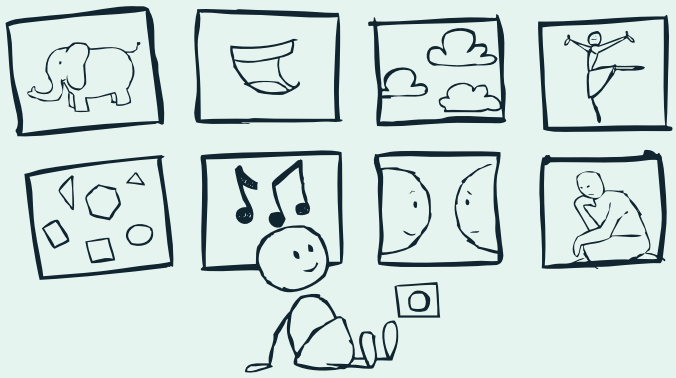


Foreword

The overwhelming sense I had upon first hearing John Abbott speak was one of relief. Finally, here was someone who could give substance and context to my concerns, not just about the kind of education we were giving our children, but the kind of world we were raising them in. It was at that short presentation (one of more than a thousand John has given around the world in the past twenty or so years) given at my daughter's school that I – and others in the room – understood that our niggling doubts were both valid and far more important than we'd imagined.

I suspect this is a sentiment shared by the many thousands of teachers, pedagogues, young people and parents who have attended John's lectures, read his books or listened to his blogs over the course of the last 25 years. After all, it is not enough simply to know that something is amiss – one needs to understand the what, how and why. That is what John's work – and this document – provides.

Over the last two decades, there has been an ever-widening schism between political dogma and multi-disciplinary research on how we are born to learn. Back in the early 1990s, while John was synthesising this research into a coherent set of ideas welcomed by education professionals, governments in both the UK and the US were moving in a very different direction, towards what Pasi Sahlberg has termed the Global Education Reform Movement (see Appendix D).

Over the last two decades, there has been an ever-widening schism between political dogma and multi-disciplinary research on how we are born to learn.

In many senses, it has been an unequal battle. Gone are the days when the Initiative's ideas were easily accessible to teachers via conferences, courses and essays. The funding for such platforms has long dried up; successive policies have forced schools to compete for resources rather than collaborate, and as Pete Mountstephen points out in his commendation on page 35, teachers are increasingly forced to focus their time and attention on passing inspections, than investigating new ideas. While the details may vary by country, this battle is being fought across the globe.

Battling for the Soul of Education couldn't be better timed. From London to Los Angeles, those attempting to fight against outcome-based learning are often dismissed as Trotskyite hippies. In the UK our own Secretary of State for Education has dubbed this camp 'the Blob', reinforcing a battle line that has everything to do with political point-scoring, and little to do with supporting children and young people. Here's where John Abbott's work is so essential in supporting

what Jeff Hopkins so pertinently describes as "the incredible escape velocity required to overcome the gravitational pull of the status quo" (see his Commendation on page 38).

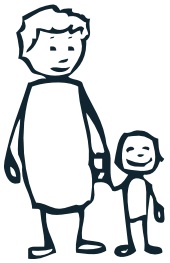
In *Battling for the Soul of Education*, John offers a narrative that transcends political mud-slinging and raises the debate far beyond talk of targets and curricula, to something more fundamental and inspiring. With the utmost skill and erudition, he both offers a diagnosis and suggests possible treatments based on current understanding on how human beings learn. He even explains in the most succinct, accessible way, how our system has come to be so dysfunctional so that we may avoid repeating the same mistakes again.

Whole-system change can only happen when a self-selected group of individuals ommits to assimilating these ideas within the context of their own social and political landscape

One gentle word of caution: do not expect this document to serve up a ready-packaged solution to the crisis – and let's be clear that this is a crisis. We have become so used to being told what to do and think by 'experts' in whatever field, that not being supplied with a prescription can seem a glaring omission. Indeed, this has been a common criticism levelled at the Initiative, and one I shared upon first becoming a trustee: *it's all very well telling us what's wrong, but why can't you tell us what to do about it?*

To expect John – or any one person for that matter – to supply a silver bullet, is to miss the point. As John explains so eloquently in the following pages, whole-system change can only happen when a self-selected group of individuals commits to assimilating these ideas within the context of their own social and political landscape and generating a narrative that's compelling enough to engage leaders and decision-makers across the board. This document offers the tools to make this happen – it's up to us to use them well.

Caroline Wijetunge
Editor and trustee of the 21st Century Learning Initiative



Caroline is a writer, director of a software house, and mother of two children aged eight and four. Her interest and concern for children's education led her to the work of the 21st Century Learning Initiative. Besides writing for industry with a focus on the financial sector, her work as a trustee of the Initiative has included scripting short animations as well as editing. She lives in Bath.

Battling for the Soul of Education

Moving beyond school reform to educational transformation

John Abbott[1]

How humans learn – and consequently how children should be brought up – has concerned the elders of society for millennia. It is referred to as the nature/nurture issue: how much of what we are is a result of what we have been born with, and to what extent is this (or can this be) enhanced by how we are brought up?

That there is no easy answer to this question concerned the Ancient Greeks[2] as much as it did our Victorian ancestors, and is as lively an issue today for the proponents of 'outcome-based education' as it is for those who argue for teaching children how to think for themselves.

With the virtual disappearance of learning through apprenticeship in the late 19th century, concerns about how children learn have shifted away from the home and the community to focus, almost exclusively, on the role of the school.

Questions about school reform are being asked with increasing frequency in many countries, especially those seeking to adapt to rapidly changing social, economic and political turmoil. A range of indicators suggest, however, that after a couple of decades of intensive effort and vast expenditure of funds the results of several English-speaking countries remain problematic.[3]

Given what we now know from research into human learning, it would seem that what we need is not further school reform, but a radical transformation of the education system based on the complimentary roles of home, community and school.

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To guide future policy we must recognise that the present structure of British, essentially English, education (a structure that has significantly shaped education in many English-speaking countries) is a result of numerous decisions taken in times past by policymakers as they reacted to social and economic environments very different to those of today.

1
John Abbott is Director of The 21st Century Learning Initiative – johnabbott@21learn.org.

2
Plato asked Socrates 2,500 years ago; "Can you tell me", the greatest Greek philosopher asked his colleague, "are our behaviours taught, or are they acquired by practice? Or are they neither to be practised nor learnt, but are they something that comes to men by nature or some other way?"

3
Late October 2013, as this article was being written, a flurry of media interest was generated by the OECD's *Survey of Adult Skills* which highlighted (shockingly) that in my country – England – those aged over 55 had better numeracy and literacy levels than those aged 16-24. Knives were out; heads had to roll (if they were still alive). In England, the effect was traumatic. England came 22nd for literacy and 21st for numeracy. My countrymen were undoubtedly the 'dunce' in the OECD corner with only the United States (the home of much of this policy muddle), Spain and Italy beneath us. Truth is we English have been in that corner not simply for decades, but as the work I have been producing over the last 25 years has shown, for generations. Having worked and studied around the world throughout that task, I feel like an intellectual refugee from my own country.

Most of the schools that today's children attend were designed when prevailing cultures assumed that children were born to be taught rather than to learn. So, what kind of education is now required to prepare the younger generation for the kind of adult life which our society values, and wishes to perpetuate?

What kind of education for what kind of world?

Lecturing widely around Britain, North America and Australia in the mid-1990s, I proposed a graphic metaphor:

> *Do we want our children to grow up as battery hens or free-range chickens?*

To ask whether an education system is like a battery hen farm or a free-range farmyard raises significant questions. To an accountant the exact measurement of inputs given to battery hens can give the farmer a more apparent real return on his investment than the less precise practice of leaving hens to wander around the farmyard. But what if the farmer got the shape of the wire cages wrong and the hens had to be released? They would, through lack of exercise, hardly stand on their own feet, or flap their wings. Lacking the natural adaptability of a free-range cockerel who can always escape up to the nearest beam or branch, the over-bred battery hen becomes a perfect morsel for a predatory fox to gobble up.

Do we want our children to grow up as battery hens or free-range chickens?

Whether a farmer decides to invest in a battery hen farm, or a free-range farmyard, is ultimately a question of the kind of chicken (meat and eggs) he wants to produce, and the market he is seeking to satisfy.

The same is true of education. To develop a system that reduces the individual's adaptability so as to enhance a set of special skills – a battery hen-type schooling – requires a dangerous certainty about the future. If there is any doubt about the kind of world our children will inherit, then a free-range approach that encourages adaptability and creativity is not only desirable but essential.

Everything I have learnt over the past 20 years about the multiple forms of innate human predispositions to do things in certain preferred

ways, has always to be subsumed to what I once heard an eminent neurobiologist say, "in terms of our everyday decisions what matters most are the value systems of the society in which we live". In other words, although it seems that in the long term we have strong internal mechanisms to balance our competitive instincts with collaboration and our material ambitions with our need for human affection, in the short term if everything around us urges us to be ultra-acquisitive then the most aggressively competitive person will win through. But that is only in the short term. As the systematic study of the evolution of human behaviour shows us, a surfeit of acquisition inevitably wrecks a society.

Pilgrim or customer?

Another way of challenging ourselves to think about what we are doing, is to ask whether we see children as pilgrims or customers. 'Customer' surely defines a specifically materialistic concept of life. John Bunyan's Pilgrim[4] is an allegory of a man making his troubled way through life with a heavy load upon his back, beset on all sides by temptations and threats to his world view. An idealist who could see beyond him the House Beautiful, yet could still flounder in the Slough of Despond when the going got tough. Pilgrim, moved by the story of the Good Samaritan, knew that, however rough the going was for him, there were always others who were worse off. A man who grew stronger with every obstacle that he learned to overcome.

4
Bunyan, J. (1678) *The Pilgrim's Progress.*

Pilgrim or customer? Creators of their own material and eternal destiny, or consumers of a range of goods and services as defined by someone else? Thinkers able to take responsibility for their own actions, and willing to accept responsibility for working for the common good, or someone who, in their frustration that nothing so far pulled off the shelves of a supermarket quite suits their tastes, searches for yet another perfect brand? That one has to raise such a question has to be a sign of the moral confusion of our times.

As the systematic study of the evolution of human behaviour shows us, a surfeit of acquisition inevitably wrecks a society

These issues are increasingly being taken up by a frustrated public. Is it just possible that the contrast between the excessive bonuses to the few and the ever more stringent restrictions on others might provide just the stimulus to arrive at a moment when a bigger conversation becomes essential?

Ill fares the land

As he was dying from motor-neurone disease, Tony Judt captured this dilemma in *Ill fares the Land*, when he quoted Adam Smith from more than 250 years before: "No society can surely be flourishing and happy, of which the far greater part of the members are poor and miserable".

> *"Something is profoundly wrong with the way we live today. For 30 years we made a virtue out of the pursuit of material self-interest: indeed, this very pursuit now constitutes whatever remains of our sense of collective purpose. We know what things cost, but have no idea what they are worth. We no longer ask of a judicial ruling or a legislative act: Is it good? Is it fair? Will it bring about a better society or a better world?*
>
> *"…The materialistic and selfish quality of contemporary life is not inherent in the human condition. Much of what appears 'natural' today dates from the 1980s: the obsession with wealth creation, the cult of privatisation and the private sector, the growing disparities of rich and poor. And above all, the rhetoric which accompanies these: uncritical admiration for unfettered markets, disdain for the public sector, the delusion of endless growth.*
>
> *"We cannot go on living like this.[5] And yet we seem unable to conceive of alternatives….If young people today are at a loss, it is not for want of targets. Any conversation with students or schoolchildren will produce a startling checklist of anxieties…… but accompanying these fears is a general sentiment of frustration: 'we' know something is wrong ….but what can we believe in? What should we do?"[6]*

5
"Ill fares the land, to hastening ills a prey, where wealth accumulates, and men decay", Oliver Goldsmith, *The Deserted Village*, 1770.

6
Judt, T. (2010) *Ill Fares the Land*, pp 1-3.

"Do you teachers realise how boring you are?"

Such frustration is forever boiling over, as it did at a large meeting of teachers in Toronto in 2004. Two 15 year-olds turned on the teachers and said, "Do you teachers realise how boring you are?" Stunned by such a direct criticism, the teachers listened intently as one of the girls went on, "You treat education like a TV dinner. You tell us to go to the freezer, pull out a box, read the instructions carefully, take off the wrapping, puncture the cellophane, then set the microwave for the right time. If we've followed the instructions carefully, we'll get full marks. But that's so boring. What would be more interesting, would be to make up our own recipe, mixing different ingredients we had chosen. Then if it didn't work, we would change the recipe slightly, and keep trying until we had got a recipe that tasted really good. That kind

of learning would be fun and make us think. At the moment we are being taught to fit into, rather than shape, our world".

Such 'TV-dinner teaching' produces battery hens, an undernourished landscape, and the perpetuation of the system Judt described.

Ask yourself this...

Read today's papers carefully, listen to the radio, watch television or scour the internet and ask yourself, which way do you see politicians trying to lead us? Towards battery-hen schooling or a free-range education? Which way do you think we should go? And is there a compromise: can we bring children up to experience both tightly-prescribed schooling, and the open world of exploration and discovery? If so, what are the difficulties? That there are no easy answers to this is all the more reason to ask these questions.

The busier and wealthier we have become the less time we seem to have for each other

The crisis threatening civilised life

The spectacular rise in standards of living in recent years especially within the English-speaking nations, has created an extraordinary paradox:

> *The busier and wealthier we have become the less time we seem to have for each other.*

This has created a crisis in how we educate our young people. It is a crisis of many parts that threatens the very basis of civilised life – and it deserves your attention.

We undoubtedly live in extraordinary times, rich in opportunity yet loaded with uncertainty. While it is predicted that a healthy child born today in the UK has a 25% chance of living to the age of one hundred, only a decade ago the then President of the Royal Society gave humankind only a 50-50 chance of surviving that same hundred years. Why? Because, he argued, our technological knowledge is outpacing both our wisdom and our ability to make balanced judgements: a most dangerous mismatch.[7]

7
Rees, Martin, *Our Final Century: A Scientist's Warning: How Terror, Error and Environmental Disaster Threaten Humankind's Future in this Century – On Earth and Beyond* (Heinemann, 2003).

The more confused adults feel about the big issues of life, the less willing they are to give their adolescent children the space to work things out for themselves. Uncertain adults breed uninvolved, inexperienced adolescents:

> *A society that has to rediscover reasons for its faith in the future is a mean place in which to bring up our children.*

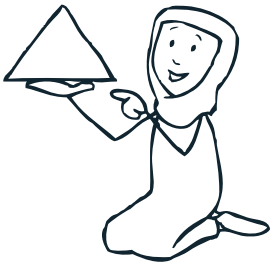
Such uncertainty stems from the competing Customer and Pilgrim narratives and their critical differences: the first argues for the rights of the individual, the latter for interdependence and community. Beyond this even, the struggle is being fought over the remains of much older narratives, well-known in their different guises to our ancestors. These older narratives had been about moderating and civilising the competing drivers of human behaviour that would otherwise bring chaos to individuals and societies, by establishing a sense of the common good.

In today's "let's have it all now" society we have forgotten the social significance of those spiritual traditions (referred by many as ethical and philosophic) which in the past sought to "bind"[8] the individual and community together for mutual benefit and create a sense of meaning.

A whole new way of doing things has to be found. It is not just the political realm, or the economic, or even the scientific or the spiritual realms, but it is all of these elements of human experience that have to be considered. And considered in their entirety, not separately

With the weakening of commonly agreed codes of behaviour and morality, governments have seen it necessary, even desirable, to describe in ever finer detail what individuals must, and must not, do. What has life become if we are so reduced to doing only what we are told to do, that we no longer have it within us to rise to the challenge of being personally responsible?

8
The word 'religion' is derived from the Latin word 'religio', which means 'to bind together'.



Constructing an alternative vision

A whole new way of doing things has to be found. It is not just the political realm, or the economic, or even the scientific or the spiritual

realms, but it is all of these elements of human experience that have to be considered. And considered in their entirety, not separately.

Instigating a collective change of heart

Some self-selected groups of dedicated individuals have to have the foresight, energy and imagination to transcend the comfortable rules and procedures of self-defining disciplines and embark on a synthesis of facts and theories that, however inconvenient this might be, seeks to appreciate the entire situation. Like an Impressionist painting composed of thousands upon thousands of apparently disconnected dots, we only understand the brilliance of the artist when our focus shifts from seeing the separate dots to suddenly appreciating the picture as a whole.

Even when we have the whole picture nothing can be achieved without a fundamental change of heart on the part of the people themselves. To activate a population involves constructing a persuasive, alternative vision which is so compelling that the contemporary narrative is shown up for what it is – something shallow, utilitarian and demeaning to the grandeur of the human intellect.[9]

A campaign to reverse an overschooled but undereducated society cannot be masterminded by any single, brilliant strategist. It requires distributed leadership, and for that to be effective everyone needs to be really knowledgeable about why they are involved and the rightness and urgency of the cause.[10]

Our post-modern societies have done their best to convince us that there is no such thing as a shared moral code. But without such commonly held beliefs simplistic, politically-correct statements that reflect only the lowest common denominator, squeeze the life out of education by dulling the vigour of pupil and teacher alike.

A complete and generous education

For young people to utilise their innate predispositions to the full, they need both a formal, rigorous curriculum and a whole experience of life that will later sustain and make them strong enough to deal with all the vagaries of life. John Milton, a man of towering intellect and much practical common sense, reflecting his contemporary Jan Amos Comenius' *The Great Didactic*,[11] spoke in the midst of all the turmoil of the English Civil War in 1644 from a time before reductionism sought to undermine the glory and complexity of what being human could

9
See 'The Brilliance of Their Minds', proposed TV script available on www.born-to-learn.org (See Appendix F)

10
Under the banner of Responsible Subversives, the Initiative seeks to build an ever more influential network of people able to draw all these ideas together. See www.responsiblesubversives.org.

11
John Amos Comenius, in the book *The Great Didactic* of 1638, wrote:
"Following in the footsteps of nature we find that the process of education will be easy
1. If it begins early, before the mind is corrupted,
2. If the mind be duly prepared to receive it,
3. If it proceed from the general to the particular,
4. And from what is easy to what is more difficult,
5. If the pupil is not overburdened by too many subjects,
6. And if progress be slow in every case,
7. If the intellect be forced to nothing to which its natural bent does not incline it, in accordance with its age and with the right method,
8. If everything be taught through the medium of the senses,
9. And if the use of everything taught be continually kept In view.
10. If everything be taught according to one and the same method.
These, I say, are the principles to be adopted if education is to be easy and pleasant."

"I call therefore a complete and generous education that which fits a man to perform justly, skilfully and magnanimously, all the offices both public and private, of peace and war."

John Milton

mean. He gave a definition of education nearly four centuries ago that I would argue we need to rediscover:

I call therefore a complete and generous education that which fits a man to perform justly, skilfully and magnanimously, all the offices both public and private, of peace and war.

Ponder those words: – an education that was *complete and generous* (no half measures here), that *fits* (like a tailor making a bespoke suit), so as to *perform* (not just talk) *justly* (so requiring a fine appreciation of ethics) *skilfully* (Milton's definition of skill included the practical as well as the theoretical) and *magnanimously* (with a big heart and empathy with others), *not only in his private affairs but publicly*, when things were going well as well as badly. The rounded person, the adaptable, free-range person, not the efficient and single-purpose battery hen. People who can think for themselves, however complex the situation.

To establish such a national vision of education for our own times, in terms comparable to Milton, has to be the starting point for a strategy in any nation in the world that would reverse our increasingly overschooled but undereducated societies, and recognise that real education has to start far away from the gates of the school.

It is surely self-evident that the better educated people are, the less they need to be told what to do. Unfortunately, the reverse is equally true, for the less educated people are, the more government feels it necessary to issue larger rule-books. As regulation is extended quickly it becomes self-perpetuating, for the more people accept being told what to do, the less they think for themselves. This is the tragic point that many English-speaking countries now seem to have reached:

> *We are in danger of becoming so over-taught that we will lose the art of thinking for ourselves.*

A national vision of education should involve the exploitation of recent findings from neurobiology, cognitive science, systems thinking and what it tells us about cognitive apprenticeship,[12] and how this is in effect hard-wired into our brains.

12
See Abbott, J. (2004) 'Lieutenant Peter Puget, the grain of the brain and modern society's failure to understand adolescents', available at www.21learn.org.

Cognitive apprenticeship suggests that learning involves the progressive deepening of earlier understandings, and the joining together of what had earlier been separate, disconnected ideas. It is through experience mixed with reflection that humans weave their own experiences and knowledge of the world into unique patterns. The role of the teacher has to change from 'sage on the stage' to 'guide on the side'.

Cognitive apprenticeship – a model for our times

Within a cognitive apprenticeship both the task, and the process of achieving it, are made highly visible from the beginning. The student understands where they are going and why. Learners have access to expertise in action. They watch each other, get to understand the incremental stages and establish benchmarks against which to measure their progress. These are the processes that are at the heart of apprenticeship and have evolved over thousands of generations as parents sought the most effective way of helping their children to understand the world. The definition of success over countless ages in the past was when the novice learner/apprentice could demonstrate that they were as good as their master, and maybe even better.

Cognitive apprenticeship gives us a whole new way of looking at the evolved grain of the brain, and calls for a pedagogy that progressively weans the growing child away from its dependence on instruction. Such pedagogy has to honour the ages-old principle of subsidiarity, whereby it is wrong for a superior to hold to itself the right of making a decision which an inferior is already qualified to do for itself. Just as parents have to let go of their children as they grow older, so subsidiarity necessitates a relationship of trust, not control. If we equip ourselves to be able to do something but then are constantly over-ruled, we fast lose our motivation as control slips away from us (which is exactly what happens to teachers subjected to too much micro-management). It is not an easy principle to put into effect, as the contemporary struggle within the European Union between Brussels and individual member states testifies.

England (as with other comparable nations) needs an education system that will reverse the priority first gained by Dr Arnold for secondary education in the mid-nineteenth century and further extended throughout the last century (for a very brief history of British schooling, see Appendix A, and Appendix B if you wish to dive deep).

It is imperative to see the primary school as the stage when the essential foundations for lifelong learning are built, and funded accordingly. Once that essential design fault has been recognised then the senior years of education would involve teachers and schools

sharing with the greater community the responsibility for providing adolescents with a range of in-school as well as community-based learning opportunities.

The opportunities - and limitations - of technology

There is another design fault. Schools with their separate classrooms, each arranged for specialist teachers to deliver their own self-contained subjects are very much a product of paper and ink technology. Clearly, the world has moved on, and while there is much commentary on the technology now available to pupils, there is a disturbing lack of discussion over how technology can be used to support the way pupils naturally learn.

A good classroom needs extended periods of quiet in which children enjoy burrowing away at a topic – and a good teacher needs the space to respond to the particular interests of the class.

Besides supporting a child's natural mode of learning, this space allows for the 'rigour' that Tony Little mentions in his Commendation on page 41, and which is so valued by the Finns. Simply put, 'rigour' is about driving yourself to really understand what something is all about. This requires that teachers have the wisdom and the opportunity to escape from a lesson plan and provide alternative ways to get children to use time.

When the use of technology becomes over-dominated by the end result, you lose, in the name of 'efficiency', the slippage time vital for deep learning. Technology badly used can push children so fast there is no space for the spontaneous to happen. But just as a teacher who holds too slavishly to their lesson plans misses a precious opportunity, so too do those children who follow the pre-designed paths the technology sets out.

With this in mind, Government needs education professionals to advise on the opportunities – and limitations – that technology offers. It is my experience that too often this is something those professionals fail to provide as they seek to juggle political expectations.

Raising citizens of the world

A clear vision that links self-starting individuals to the needs of dynamic communities, based on a form of learning that goes from cradle to grave and is practiced as much beyond the walls of the school

as it is within classrooms, would rapidly reinvigorate the youth of the English-speaking world. Seeking to explain how he had brought order to the chaos in New South Wales, Australia, Lachlan MacQuarrie, the fifth Governor (1810-1821), recalled his own youth growing up in a tiny self-contained island community in the distant Hebrides, saying, "If you are born on a mere speck of land in the middle of the ocean you quickly discover how things work, and why people do as they do. Learn that lesson well, and you are equipped to become a citizen of the world."

Such emerging citizens of the world would accumulate the skills and wisdom necessary to direct mankind's technological discoveries in ways such as those proposed by Sir Martin Rees (now Lord Rees) at the Millennium, that "would lead to a near eternity filled with evermore complex and subtle forms of life" rather than "one filled with nothing but base matter".[13]

"If you are born on a mere speck of land in the middle of the ocean you quickly discover how things work, and why people do as they do. Learn that lesson well, and you are equipped to become a citizen of the world."

Lachlan MacQuarrie

13
Rees, Martin, Our Final Century: A Scientist's Warning: How Terror, Error and Environmental Disaster Threaten Humankind's Future in this Century – On Earth and Beyond (Heinemann, 2003).

Establishing covenantal relationships

At a conference in the United States some 15 years ago to discuss these issues, an American participant said with obvious passion, "Knowing what we now know, we no longer have the moral authority to carry on doing what we have always done". To Americans, rooted in the philosophic tradition of 17th Century Puritan thought, such high-flying sentiments come more easily than they do to the English. A century and a half later when Jefferson drafted the Declaration of Independence he had in mind the kind of covenant the Pilgrim Fathers had signed aboard the Mayflower: "We whose names are underwritten... solemnly and mutually in the presence of God and one another, covenant and combine our services together in a civil body politic."

In a 'covenantal relationship', no amount of shoulder-shrugging, no anguished appeal to politicians, no recourse to blaming other people's inertia, can ever excuse the knowledgeable individual's responsibility to get up and do it for themselves. They express this, through the words of the 1662 Authorised Prayer Book, the work of literature which stood

only second to the Bible in the formation of American philosophic thought. This said:

> *"We have left undone those things which we ought to have done;*
> *And we have done those things we ought not to have done;*
> *And there is no health in us."*

To fail to do something which you are required to do is one thing. But not to do something which you know ought to be done makes a person equally culpable of letting other people down. Even if we can see no clear 'higher' purpose to life, Tony Judt, reflecting on Pope John Paul II from his own non-practicing religious background, comments, "We need to ascribe meaning to our actions in a way that transcends them. Merely asserting that something is, or is not, in our material interest will not satisfy most of us, most of the time."[14]

14 Judt, T (2010) 'Ill fares the Land', p180.

When altruism beats selfishness

Now, in 2014, this remains the critical point. Recently, evolutionary psychologists reinforced what Darwin had acknowledged a century and a half earlier: that while high standards of morality gave slight or no advantage to individuals, research now shows that altruistic behaviour most certainly benefits the genes of the whole group. They summarised this as "selfishness beats altruism within groups; altruistic groups beat selfish groups every time"[15]

15 Wilson, D. S. and Wilson, E. O. 'Evolution: Survival of Selflessness', *New Scientist*, November 3, 2007.

Our material interest, as much as our emotional and spiritual interests, is dependent on how we operate as a group, not merely as individuals. To evolutionary psychologists, as to sociologists, head masters, house masters, chief executives of corporations as well as to politicians then, the concept of "group size" is critical.

Why size matters

16 Lieberman, M. D. (2013) 'Social', New York: Crown Publishers.

Current research[16] underlines the psychological demand on primates of living within large groups. This research shows that the preferred group size correlates closely to a species' brain size, and it has been demonstrated over and over again around the world that this for Homo Sapiens means a group of around 150 – be it in living on a housing estate, a member of a company of soldiers, or *actual* friends on Facebook.

Colloquially, 'friendship' tends to be defined by those people we actually know, and who know us, and amongst whom there is a sense of positive reciprocity. Over history successful empires were always

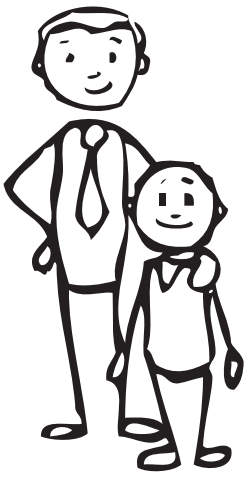
those with the highest levels of collaborative behaviour; that is why those who enthusiastically sought to embrace British Prime Minister David Cameron's concept of 'Big Society' two or three years ago can't, at the same time, advocate social policies overtly based on competition and hierarchies. They simply don't mix.

This has nothing to do with regulation or performability (a concept much favoured by previous British Prime Minister Tony Blair). Policy-makers have frequently forgotten that most day-to-day activity has nothing to do with the law; it is about getting on with our neighbours and creating a quality of life that depends on our access to people we trust, like, admire and find fun. Children need to learn this everywhere – from their mother's knee, to the nursery, to the playground and in all their interaction with members of the community.

Society is an 'aggregate' (something formed from a mass of loosely connected fragments) of people living together in more or less orderly communities, held together through its own natural, organic procedures, and in the case of humans, our extraordinary ability to articulate our thoughts through language. Being an aggregate is society's strength; or, put another way, society is the aggregate of what people think for themselves. Through the sharing of our thoughts we come to appreciate the diversity and the collective of society as a whole… and are the richer for that.

This is why the current move from localised to central control of education in England is so problematic – and threatens to undermine democracy itself.

Democracy and the local democratic control of education



The 1944 Education Act in England specifically set out a partnership between Central Government and the 140 Local Education Committees whose job it was to maintain their schools through strengthening the role of each school's governing body. Interestingly, in this the Act harked back to the arrangements for School Boards as set out in 1870, and of which I have personal experience because these were taken to what is now Canada in 1872, and in particular in British Columbia (BC), where they remain today. Writing in 2012, George Abbott – the BC Minister of Education – reflected most perceptively,

> *"Neither central nor local government hold any monopoly on wisdom and common sense. Both levels can add value to the*

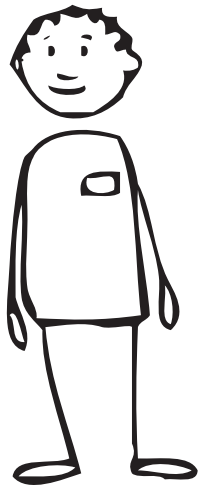
construction and delivery of public policy and programmes. Ideally the inevitable tension between central and local levels will be creative. In a highly centralised system such diversity and innovation would not be possible, and the central government, in turn, would not have this demonstrated success to build on. Striking the right balance between local and central powers is critical. While not perfect, BC at least approximates an appropriate balance."

The erosion of local democracy in the UK – and why this matters

Defending that balance between local and central powers has become increasingly strained in England over the last half century. In the UK, starting with the uncertain 'acceptance' of Comprehensive education back in 1965, damaging tensions have arisen between central and local government largely because central government has been reluctant to acknowledge the need to compensate for the extremely disadvantaged socio-economic environments in the most deprived parts of England.

"If local government withers, the roots of democracy dry up"

Increasingly Westminster has sought to reduce the powers of local government. It started with the proposal to create City Technology Colleges in the late 1980s funded directly from Westminster and independent of any control exercised by a Local Education Authority… a kind of expensive cuckoo in somebody else's nest. This led to the total abolition of Local Education Authorities and the establishment of Academies and Free Schools in the last few years (each separately answerable to the Minister of State, rather than any form of local democratic accountability). By 2011 any sense of such partnership had completely evaporated leaving an "alarming democratic deficit at the heart of our education system".[17] Earlier, Sir Peter Newsam noted gravely, "if local government withers, the roots of democracy dry up", and went on to say that "England is now well on the way to having the most totalitarian as well as one of the most inefficiently managed schools system in Europe".[18]



17
Clayton, G (2012) The alarming democratic void at the heart of our school system, *The Guardian*, [online] 26 April, available at www.guardian.co.uk [accessed, 9th August 2012].

18
Newsam, P. (2011) Towards a totalitarian education system in England [online], available at www.newvisionsforeducation.org.uk/2011/11/16/towards-a-totalitarian-education-system-in-england-sir-peter-newsam [accessed November 2011].

Without an engaged, responsible electorate, democracy will die

Growing up in the aftermath of the Second World War, my generation had great faith in democracy for, after all, had not the War been fought to prove the superiority of democracy over totalitarianism? Democracy can't flourish unless each new generation is well nurtured in the affairs of the mind, and appropriately inducted into the responsibilities of adulthood and the maintenance of common good. Until the English (as with other nations) believe that in both their public life as well as private affairs, democracy really does matter, and matters for every man-jack of them, they will never understand why every child matters. Without this realisation (which is why Finland has been so successful in its reforms) British democracy is in peril.

Meanwhile, politicians appear to believe that they can personally supervise the running of over 17,000 primary schools, 3000 secondary schools and an ever-increasing number of Free Schools from their desks in Whitehall; Ministers now struggle to find a new 'middle tier' that, even though they will not admit this, has to accept the same responsibilities as did the old Local Education Authorities, and government-appointed Chancellors could come to replace earlier locally-appointed Chief Education Officers (as of November 2013).

The forgotten meaning – and point – of efficiency

Many of us will have assumed for the past 25 years that we are beset by a "crisis in schooling", but what we have been extraordinarily slow to recognise is that this is only a symptom of a far deeper, more insidious, problem. It is the way in which market efficiency has become, for politicians, the determining factor in so many aspects of social policy. Writing in 2004 a journalist [19] and self-confessed atheist commended two bishops for being concerned with, "the yearning for happiness and fulfilment … and for an ethic of human flourishing that is rooted in human nature." She went on to observe, "it has become almost unthinkable to go to politicians for this kind of language or ambition. [If they told us] that their main intention in public life was to make us happier, or to challenge us to rethink our values we would laugh in their faces. The political arena has shrivelled drastically, back to a technocratic promise to use our taxes to provide services a bit more efficiently than the other lot."

19
Jackie Ashley, *The Guardian*, May 2004.

Herein lies the problem which now infects every aspect of our schools, homes and communities. The meaning of efficiency has been perverted to become an end in itself – not a means to a more significant set of ends. Efficiency is a concept dating back to the Ancient Greeks, but they defined efficiency in a significantly different way to early 21st century advocates of open markets. To them, efficiency was a means towards achieving virtue, both for the individual and the state; it was about the best combination and utilisation of human resources to achieve the ideal state.

20
See definition on page 11 ('Cognitive Apprenticeship')

Subsidiarity[20] – hard to measure, but it works

Subsidiarity as applied to education defines the evolving relationship between pupil and teacher, and between parents and children. It does not appeal to advocates of the market economy. To them, subsidiarity is too imprecise, messy, problematic, and individualistic to be applied to a system driven by known inputs and measured in terms of quantifiable outputs. Yet subsidiarity was the principle (even though not known by that name) that drove the craft ethic that gave splendid birth to the Industrial Revolution. Those men were entrepreneurs because they felt in control of their destiny.

The scientific management of labour that Fredrick Winslow-Taylor and others later set out had absolutely no regard for the Greek concept of the virtuous state. What these men offered was a process that had so many immediate material benefits that men in their tens of thousands forsook the concept of the equitable distribution of labour, for the benefits of the accumulation of capital for those with the money to do so, and the almost inevitable dumbing-down of those whose only role was to labour.

> The nation that once prided itself on its practical approach to life has become blind to the need to empower people to work things out for themselves.

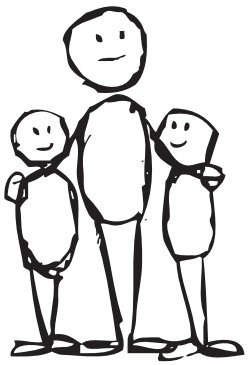
What the peoples of the English-speaking world have been appallingly slow to do, however, is to recognise that the industrial model of schooling with its heavy emphasis on control, prescription and uniformity simply enshrines efficiency as an end in itself. Under the guise of continually reforming the conventional model of schooling, English speaking countries have often failed to see the need to rebuild the process of learning around the way in which children actually accumulate and use knowledge. The nation that once prided

itself on its practical approach to life has become blind to the need to empower people to work things out for themselves. In the name of empowering people it has substituted instead a crude system of uniform credentialism, and imposed on education – as with other facets of social life – the tightest regulated and heavily managed set of systems.

The key to lasting happiness

In his book Growth Fetish, Australian Clive Hamilton observed; "Today the compulsion to participate in a consumer society is no longer prompted by material needs (these have been largely solved) but rather by political coercion. It is prompted by the belief of the great mass of ordinary people, taking their cue from political leaders, that defined happiness as society, as with individuals, must be forever getting richer, regardless of how wealthy they already are."[21]

21
Hamilton, C. (2004) *Growth Fetish*, Pluto.



This is a basic contradiction of a profound evolutionary principle; to satisfy human basic needs increases happiness, but the ongoing search for an ever-expanded set of "wants" as set out most persuasively by the advertising industry, is largely an illusionary journey with no end in sight. Robert Wright, one of the founders of evolutionary psychology, put it neatly and succinctly; "we are born to be effective animals, not happy ones". It seems that we are at our most satisfied when we feel that we have genuinely earned our reward and are proud of the job which we have laboured to do. The basic problem in our society is that too many people don't have that level of involvement with their work. A reward too easily gained (either in school or in one's greater life) means little to us. Therein lies so much of our dissatisfaction with modern life.

Some while ago the President of the American Psychological Association, Martin E.P. Seligman,[22] attributed the massive rise in unhappiness, as defined by him as various forms of depression, to four factors: an excessive emphasis on individualism, the constant attempt to bolster self-esteem, the belief that any mistake is due to victimisation (and is not your fault), and the continuous cult of consumerism. Of course teachers have been sensing for a long time that the convergence of these four factors in children's homes creates such deep tensions which are then transmitted into the classroom – many of which schools are totally powerless to rectify.

22
See www.authentichappiness.sas.upenn.edu

This is why Milton's statement about a complete and generous education made all those years ago is so entirely relevant to our own times – if, and only if, we can accept the responsibility of defining a

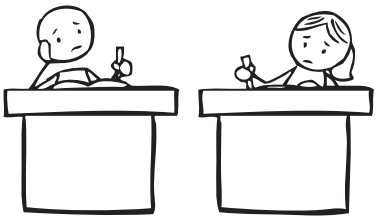
society characterised by justice, skilfulness and magnanimity. For the sake of the children, our children, other people's children, this cannot go on any longer.

Greed is good... or is it?

There is one further key issue to address. In 1946 as the Allied powers set about rebuilding the shattered world economic system, John Maynard Keynes said "the day is not far off when the economic problem will take the back seat where it belongs, and the arena of the heart and the head will be occupied or reoccupied by our real problems – the problems of life and of human relations, of creation and behaviour and religion".[23]

23
Maynard-Keynes, J. (1946) *First Annual Report of the Arts Council* (1945-1946).

So successful were the Allies in following up Maynard Keynes' stringent recommendations to get the Western economies back on their feet and avoid being submerged by Communism, they forgot his warning that such shock economic treatment should last as short a time as possible for fear that materialistic ambition should swamp our essential humanity. But within 15 years, the American Manufacturers' Association, in association with marketing experts, declared, "Our enormously productive economy…demands that we make consumption our way of life, that we convert the buying and use of goods into rituals, that we seek our spiritual satisfaction, our ego-satisfaction, in consumption… We need things consumed, burned up, replaced and discarded at an ever accelerating rate."[24]



That was a depressing 60 years ago. Today, some ambitious politicians are suggesting fostering that spirit of envy as a valuable spur to again stimulate economic activity and national wellbeing.[25]

24
Packard, Vance (1960) *The Waste Makers*, Penguin.

25
Johnson, B (2013) 'What Would Maggie Do Today?', Centre for Policy Studies Annual Margaret Thatcher Lecture , 27th November.

The world moves on...

As the sense of civil society weakens, so the social contract to which the bringing up of your own child is assigned to someone else. This can all too quickly lead to education becoming a matter for private gain, not for public good. Functional civil society and genuine democracy should

As the sense of civil society weakens, so the social contract to which the bringing up of your own child is assigned to someone else.

walk hand in hand. If they don't, one or each stumbles. The belief in performability, of management by objectives, is at long last starting to falter, and it is faltering for very human reasons. Humans are a collaborative species – it is how we are - and this collaboration can, if allowed, yield the beginnings of 'bottom-up' educational transformation identified by Professor Michael Fullan.

Fullan, commenting[26] on recent reform programmes in the US, Australia and Britain, asked the question that has troubled many of us in different situations – if you want to improve a whole system do you build this up slowly from the foundations, or do you beat it up from the top down, in the hopeful expectation that you will be able to pick up the bits quickly enough to build something better?

26
Fullan, M. (2011) *Choosing the Right Drivers for Whole Systems Reform*, Centre for Strategic Education, Australia

How to instigate whole-system change

Fullan accepts the truism that when dealing with schools the best teachers are just like the best pupils… they give of their best when they are captivated by the excitement of what they are doing, feel totally in control, yet confident enough to ask for help when they need it. Poor teachers, like poor pupils, perform even more sluggishly when they are swamped by a veritable tsunami of instructions and directions that mean very little to them and to which they cannot emotionally commit (see Csikszentmihalyi's theory of "*flow*").[27]

To Fullan, this is what whole-system reform involves – it accepts the moral imperative "of raising the bar (for all students) and closing the gap (for lower performing groups) relative to higher order skills and competencies needed to become successful world citizens".[28] It is dependent upon using the combined intrinsic motivations of students and teachers in improving learning outcomes; "Unless everyone can feel involved, and see the ideas as being valuable, nothing much will happen".

27
Csikszentmihalyi, M. (1990) *Flow*, Harper and Row.

28
Fullan 2011, p.3.

Why governments adopt the wrong drivers

Those jurisdictions in a hurry often adopt what Fullan calls "the Wrong Drivers", because initially these appear highly compelling, suggest that the leaders recognise the urgency of the problem, and have the necessary 'clout'. They emphasise test results, teacher appraisal, rewards and punishments, and emphasise individual schools' improvement rather than investing in the overall capacity of the whole system. They concentrate on individuals, rather than building group solutions, and invest heavily in digital technology rather than

constructing the appropriate pedagogy. Fullan comments for the benefit of reformers everywhere, that, "there is no way such ambitious and admirable nationwide goals will be met... for they cannot generate on a large scale the kind of intrinsic motivational energy. As aspirations they sound great but they fail to get at changing the day-to-day culture of school systems". Collaboration beats competition every time.

Fullan knows that getting the balance between concentrating on capacity-building, and what can become an excessive dose of accountability, is always difficult. He concludes; "jettison blatant merit pay, reduce excessive testing, don't depend on teacher appraisal as a driver, and don't treat world-class standards as a panacea. Instead, make the instruction–assessment nexus the core driver, and back this up with a system that mobilises the masses to make the moral imperative a reality. Change the very culture of the teaching profession... The essence of whole systems success is continuous instructional improvement, closely linked to student engagement. If the wrong drivers have their way they undercut intrinsic motivation and group development. If accountability and assessment don't kill you, individualistic appraisal will come along to make sure you are dead".

Can the learning species fit into today's schools?[29]

Fullan's insights are epitomised in the extraordinary programme of educational transformation in Finland which has taken it from a country nearly obliterated by Russia in the concluding stages of the Second World War, to the point whereby it frequently heads the OECD statistics for almost every aspect of schooling (including the OECD's 'Survey of Adult Skills', October 2013). Their success embodies the Initiative's calls for an approach to education that sufficiently reflects the way humans learn and goes 'with the grain of the brain',[30] rather than against it, and challenges those premises of what Finnish educationalist Pasi Sahlberg describes as the Global Education Reform Movement (GERM) so beloved by OECD governments and statisticians, on which so much of the western world is operating (see Appendix C).[31]

What we can learn from the Finns

In *Finnish Lessons*(2011), [32] Sahlberg sets the Finnish experience in the context of a world-wide search for higher educational standards. "This book," he wrote, "does not suggest that tougher competition, more

29
Abbott. J. (2005) *Can the learning Species Fit into Schools?*, available at http://www.21learn.org/archive/can-the-learning-species-fit-into-schools/.

30
The 21st Century learning Initiative (2005) *Adolescence: A Critical Evolutionary Adaptation*, available at www.21learn.org/archive/adolescence-a-critical-evolutionary-adaptation/

31
Through GERM, an increasing number of governments have come to see education as an institutional, tightly-defined and self-contained process; a national system administered centrally ignoring the civil society as the natural unit of change. The harder the English politicians push the Academy and Free Schools agenda, the greater is the fear that the whole of society becomes segmented. The contrast between the supporter of GERM and those who believe that education has to be reframed on the basis of the 'grain of the brain' is terrifying, two storms arising from totally different perceptions of the problem and colliding in ways which make dialogue between the two very difficult. Total transformation is needed to reflect what we now know about how the child's brain develops and learns.

32
Sahlberg, P. (2011) *Finnish Lessons*, Teachers College, Columbia University.

data, abolishing teacher unions, opening more charter schools, or employing corporate-world management models in education systems would bring about a resolution of these crises - quite the opposite. The main message …is that there is another way…..this includes improving the teaching force, limiting student testing to a necessary minimum, placing responsibility and trust before accountability, and handing over school - and district-level leadership to educational professionals."

That is the essential Finnish story. Outside observers are continuously amazed that "Finland is an example of a nation that lacks school inspection, standardised curriculum, high-stakes assessment, test-based accountability, and a race-to-the-top mentality with regard to educational change". [33]

33
Ibid, p5.

Sahlberg also notes that "Finland is the land of non-governmental organisations. There are 130,000 registered groups or societies in Finland, with a total of 15 million members. On average each Finn belongs to three associations or societies… many of which have clear educational aims and principles. Young people learn social skills, problem solving and leadership when they participate in these associations." To the Finns community really matters, and this is more than a pious hope. Sahlberg continues by stressing that competition-driven education environments are stuck in a tough educational dilemma as the excessive emphasis on schooling not only threatens the child's life in school, but weakens the community and social capital at the same time. Importantly he says, "although the pursuit of transparency and accountability provides parents and politicians with more information, it also builds suspicion, low morale, and professional cynicism".

The advantage of a federal system

Maybe Sahlberg had the English in mind for they have so very recently abolished all forms of local democratic control in favour of highly centralised, political decision-making, when he noted the advantages of those countries/jurisdictions that operate on federal principles. What can work in Finland with a population of 5.5m, can surely work in some 30 states in the US, as well as Scotland (population 5.3m), Wales (3.1m), and Northern Ireland (1.8m), always providing these jurisdictions have the freedom to set their own educational policies, and conduct reforms as they think best.

What the English *can't* learn from the Finns

But there is a caveat. Education in Finland has always been an integral part of their national culture, in a way I fear the English have never understood; we remain a land divided by split educational systems and social assumptions. Finland's leap to educational fame is at least partly linked to the virtual abolition of independent education in Finland… not abolition by law, but simply abolition because the quality of the national education system is so good, and so linked to what the Finnish national character is, that it is hardly needed.

So, the challenge…

So in 2014, in whichever country you live, what kind of education do you feel is appropriate for what kind of world?

"What England needs is not a docile workforce with a range of basic skills but an enterprising, creative workforce of confident, self-starting, quick-thinking, problem-solving and risk-taking individuals who can operate in collaborative situations."

As politicians, followed by parents and especially employers, have become ever more concerned about the nation's future productivity, so the focus has shifted away from the education of the whole child as a thinking, responsible member of a future democratic society, to understanding the work of the Department of Education and Employment as that which "fits with the new economic imperative of supply-side investment for national prosperity" (Minister of Education 2001).

So persistent have been the siren calls of Parliamentarians for young people to concentrate specifically on those skills that will enable them to excel in the 'market place', that several generations have lost that sense of collaborative endeavour which has to underpin strong communities. For the last 30 years, Ministers of Education have appeared to have understood community as made up of employers who define the outcome for education: the parents who are the customers, and the school which is the delivery agent. By such criteria 80% or more of the population just doesn't count (except as tax-payers with a vote every five years) – we are apparently bystanders with nothing to offer.

We need a creative workforce, not a docile one

As the Initiative wrote as long ago as 1993,

> *"What England needs is not a docile workforce with a range of basic skills but an enterprising, creative workforce of confident, self-starting, quick-thinking, problem-solving and risk-taking individuals who can operate in collaborative situations. This range of skills and other attributes cannot be taught solely in the classroom: nor can they be developed solely by teachers".*

The world of learning must not be separated from the world of work. We need a joined up approach that joins thinking to doing, and pulls together the resources of homes, communities and schools through partnerships between the government, communities and the private sector. In doing this the UK could transform the way society nurtures its young people.

Wean pupils from dependence on teachers

Within a society dependent as never before on the intellectual and practical capabilities of people to demonstrate creativity and the mastery of a variety of skills, the key object of formal schooling must now be to give every child the confidence and ability to manage their own learning as an on-going lifelong activity. Critically, as I have argued earlier, this means that schools have to start a dynamic process through which pupils are progressively weaned from their dependence on teachers and institutions and given the confidence to manage their own learning, collaborating with colleagues as appropriate, and using a range of resources and learning situations within the entire community.

This is a contentious recommendation that will only work once many people understand its full significance. This is the nature of a paradigm shift: not just one bit changing, but everything changing and creating a whole new way of thinking.

Shift the funding emphasis from secondary to primary to ensure firm foundations

Then consider again that hundred-year old disaster in English educational thought, namely that the education of secondary pupils is more important than those in their primary years. That is how we still fund education – it's where we put our money. It's why classes of the youngest pupils are larger than those for seventeen and

eighteen-year-olds. The formal school system and its use of resources has to be completely reappraised, and effectively turned upside-down. Early years learning matters enormously; so does a generous provision of learning resources.

> *It really is time to stop thinking of primary and secondary education as being separate entities, and to start being sceptical of accepting Key Stages as anything other than administrative constructs.*

The younger the children, surely the smaller the class size?

Lump all their monies together and, if you've started to understand the message of this paper, work on the rough and ready formulae that in future class size should never be more than twice chronological age; classes of ten at the age of five, twelve at the age of six, twenty at the age of ten. The smallest classes and the greatest availability of teacher support should be with the youngest children. If the youngest children are progressively shown that a lesson about learning something can also be made into a lesson in how to know how they 'learn to learn' and remember something, then the child, as he or she becomes older, starts to become his or her own teacher.

All this has to be done, not to make the task of the teacher easier, but to develop a pedagogy that genuinely empowers youngsters from the youngest ages to take responsibility for their own learning. Treat them like young apprentices. And what was the secret of apprenticeship? It was to give the youngsters such a good start that progressively they needed less support from the master.

And what of the rest of my rule of thumb… does this mean classes of thirty-six at the age of eighteen? Of course not. Successful apprentice learners should expect to spend three-quarters of their time at that age working on their own, or in teams. Probably that would mean group tutorials of eight or nine students for about a quarter of the time, in their last year of schooling.

Create communities where children can actively contribute

While an increasing number of people recognise that autonomous learners are an essential component for commercial and social regeneration, there would not yet appear to be enough faith in the

system as a whole, to escape from a national curriculum based on the 'fail safe' principle of minimal acceptable knowledge.

My argument would require the adult community – parents and others – both to give more of their time to the individual child, and to create communities where children have the opportunity to become full contributing members; places where children learn from their experience of 'being useful'. In this way, the disastrous trend of more than a century whereby children have few, if any, direct responsibilities until they are past 18, and where youth has been seen as a mixture of 'disconnected theoretical learning', and extensive holidays, has to be reversed.

My argument would require the adult community to give more of their time to the individual child, and to create communities where children have the opportunity to become full contributing members

This will not be easy. However, time spent helping children to learn how they could contribute within the community would pay dividends in the long run for the community at large, and, immediately, for the individual child. If children need communities, then communities need children even more.

What needs to happen?[34]

So rapid has been the collapse of social capital that an increasingly individualistic culture is robbing communities of that which once gave them their vitality and made their pavements, town squares and backyards the locations for intergenerational discourse. It was here that children learnt intuitively and spontaneously the interdependence of learning, to working and living. It is social capital, not institutional arrangements, that bind people together in their daily lives, and which is so essential in the future.

A joined-up education system would connect these now separate 'worlds' by capitalizing on the following philosophies:

- The way we are treated while growing up largely determines the way in which what we are born with turns us into what we are. It is the combined influence of home, school and community (not formal schooling alone) that creates men and women capable of doing new things well, not simply repeating what earlier generations have already done.

34
Here I have a difficulty! Believing it right to set out the main issues that have to be considered, and showing these as a related whole so as to create a vision that transcends short term political initiatives primarily aimed at getting a certain party re-elected, I find myself stopping short of defining the actual steps that need to be taken. I do this for good reason... the English love to nit-pick, and they have done this for more than a century. It is why I have also constructed a historical explanation to go with this paper. The actions that need to follow are not those which groups of people should say they have borrowed from this document, rather the thinking that this document embraces should stimulate large numbers of people to so internalise the ideas that they create their own solutions tied to their own situations. What I would suggest however is that something as all-embracing as this needs to be piloted in some carefully selected areas, and most seriously developed over a significant period of time, not simply because it would be good for the area concerned, but primarily as it would provide a 'tested example' that could later be replicated nationally.

• Quality education is everything to do with teachers, not much to do with structures and very little to do with buildings. Productive teacher-pupil relationships are based on explanation, on talking things through, and seeing issues in their entirety. To achieve this teachers need both technical subject knowledge and considerable expertise in both pedagogy and child development, combined with the avuncular skill of brilliant story-tellers.

• As children grow older and more independent the influence of families and teachers decreases, while the influence of peer group and community increases. Appreciating the evolutionary significance of adolescence demands that communities provide far more opportunities for young people to extend their learning in a hands-on manner, either as formal apprentices or perfecting their skills by working alongside members of the community beyond the classroom setting.

• Current research in the learning sciences shows the critical need for young learners increasingly to work things out for themselves and become less dependent upon teacher-moderated instruction. This demands a reversal of the current policy which allocates more funds to the education of older children, resulting in the largest class sizes being in the earliest years of education, and the smallest at the top of secondary education for 17 and 18 year olds. These older students should have been empowered by their earlier experience to better manage their own learning, without so much dependence on teacher input.

• The transition from primary to secondary school at the age of 11 frequently inhibits many bright pupils who are unnecessarily held back, and damages late developers who are promoted when not yet ready.

It should now be possible to help the majority of young people, rather than the gifted few, become successful learners who will then relish the challenges and opportunities of the 21st century. There is now enough evidence about how effective human learning takes place, and internationally there are examples of all this at small scales, that new models of learning can begin to be discussed and debated at the highest political levels. For such models to emerge the whole system must be changed significantly, and such change is not likely to happen of its own volition.

By progressively 'front-loading' the system (the reversal of the present upside-down system of funding), and fully involving the voluntary contribution of home and community (so reversing the inside-out part) this would result in young people being infinitely better educated, far more able to stand on their own two feet, and more responsible for their neighbours, at no more expense than at present.

The community has to be the unit of education, not – as is currently seen to be the case – the individual school

The measure of the ultimate success of such a transformation would be a national recognition by all that it is the community which has to be the unit of education, not – as is currently seen to be the case – the individual school. Focusing on the structures of formal education alone will not lead to successful long-term solutions. It will only be in those communities in which school, home and community are really truly connected that civil society will best operate, and where children will learn from the nursery the value of that interdependence.

John Abbott *is Director of The 21st Century Learning Initiative**, *a transnational association of educational researchers and practitioners committed to facilitating new approaches to learning which draw upon a range of insights into the human brain, the functioning of human societies, and learning as a self-organising activity. It was established in Washington DC in 1996.*

Following a long career as a teacher and head teacher in England, John became Director of the Initiative's forerunner Education 2000 in 1985, spearheading nine community-wide education projects in the UK. He lectures around the world on new understandings about learning, and has advised USAiD, the UN Education Development Agency, and the Canadian Council on Learning. His most recent book is Overschooled but Undereducated.

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For more information about The 21st Century Learning Initiative visit www.21learn.org.

To view the 'Born to Learn' animations illustrating ground breaking discoveries about how humans learn and downloaded almost half a million times visit www.born-to-learn.org

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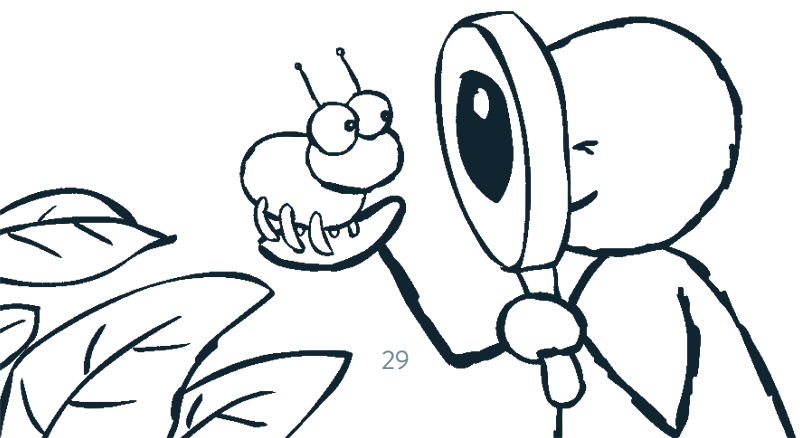
"The 21st Century learning initiative's essential purpose, as first stated in 1996, is to facilitate new approaches to learning that create a synthesis drawing upon a range of insights into the human brain, the functioning of human societies, and learning as a self-organising activity. We believe this will release human potential in ways that nurture and form democratic communities worldwide, and will help reclaim and sustain a world supportive of human endeavour." The 21st Century Learning Initiative's mission statement.



Afterword

"And it ought to be remembered that there is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things. Because the innovator has for enemies all those who have done well under the old conditions, and lukewarm defenders in those who have the laws on their side, and partly from the incredulity of men, who do not readily believe in new things until they have had a long experience of them. Thus it happens that whenever those who are hostile have the opportunity to attack, they do it like partisans, whilst the others defend lukewarmly, in such ways that the Prince is endangered along with them."

Niccolo Machiavelli, 'The Prince', *1514*

As both the oldest and the longest serving of the Trustees of the 21st Century Learning Initiative, I sometimes ask myself why I am still there. I have two reasons. The first is that I was brought up on the premise that one of the greatest gifts one can give one's children is a good education. This is a belief that I have subscribed to all my days and have passed on to my children and my grandchildren.

My second reason is that I believe that one should always, throughout one's life, continue to learn and broaden horizons. In working with John Abbott, I have had that experience in full. He is both an historian of education and an informed critic of almost every aspect of it. Although his life's work has been the task of improving education and he has met with more than his share of frustrations, I believe that his publications contain many truths and signposts for the future.

I was brought up on the premise that one of the greatest gifts one can give one's children is a good education.

It is impossible to deal with all aspects of his work but there are three specific proposals contained in them which resonate very strongly with me.

The first is his emphasis on primary education. Unless this is soundly based and carried to its proper conclusion, the consequences do lasting damage. His contention that, in this country, the transition from primary to secondary education is made too early is, to my mind, absolutely true. It is notable that in the private sector that transition comes, on average, two years later. The result of the early cut off is that the change in the pupil's life from "being taught" to "learning" occurs before most children's minds are sufficiently developed to take it in

their stride. The result is that many of the young go all through their secondary education in a state of frustration, trying to play "catch-up" and finding themselves all too often unable to do so.

My second thesis concerns the quality of teaching. It is now well known that Finland, for many years, has insisted that no-one shall teach without being in possession of two degrees, the first from a teacher-training university, and the second in the discipline which they have chosen for their career. The benefits of this are plain enough but have been enhanced for me by a high-powered American journalist, Amanda Ripley, whose recent book *The Smartest Kids in the World* has been widely praised (see Appendix E for John's review of this book). She followed the fortunes of three bold teenagers who took part of their educational career abroad. For me the outright winner was the one who chose Finland and its exceptional teaching quality.

I believe that, in the current environment, it has become absolute necessity to emulate the methods Finland has chosen. My reason for this is that, whereas in my own era the study of the humanities was dominant, in the current and future environments, the study of mathematics and the sciences has become overwhelmingly important in an ever more competitive world. It has become essential to raise the bar in the standards of education in these subjects. Second-rate teachers are simply not good enough. There is need for a new dynamic of rigour and deep knowledge in teacher training for mathematics and science – as there is for all subjects across the board.

My third thesis concerns the return to a structure in education which was in place in England in the last quarter of the 19th century but, sadly, was abolished. The fact that it is still in place in parts of the British Commonwealth, most notably Canada, and also plays a part in Finland, indicates to me that serious consideration should be given to its re-introduction in this country. I speak of "School Boards". These consist of elected members who have a keen interest in the development and improvement of education in their own communities. The benefit of having a strong cadre of local citizens with a mission to maintain high standards would give strong support to efforts towards the general

The benefit of having a strong cadre of local citizens with a mission to maintain high standards would give strong support to efforts towards the general improvement of education. That has been proven in British Columbia

improvement of education. That has been proven in British Columbia, among other places. It would also be a vast improvement on the over-centralised British system, complete with Commissar on top.

I believe that these are all proper objectives for a rich country to espouse. The rewards of carrying them out would be immense, not just in material wealth, but in spiritual well-being. It should be a prime aspiration for this country to improve education to a point where it ranks among the very best in the world.

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What is needed is a great opening of eyes and ears

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John Abbott has been doing this for well over thirty years, and can no longer carry the full burden of sustaining and developing the agenda. A new generation must take on the task. This brings me back to Machiavelli in the difficulties besetting "the introduction of a new order of things". These Machiavelli sets out with exemplary clarity.

What is needed is a great opening of eyes and ears and, above all, of minds, combined with the degree of perseverance that John has demonstrated throughout his long mission. May I urge all who read this work to consider most carefully how they can help to bring added strength to achieving its aims.

Tom Griffin
Trustee, 21st Century Learning Initiative

Before his retirement, Tom Griffin was engaged in investment management for many years, first with the Foreign & Colonial Investment Trust and then with GT Management of which he was a Founder and Chairman. He has served as director of a number of investment trust companies and international investment funds. He is the longest-serving trustee of the 21st Century Learning Initiative.

Take action!

Three steps you could take right now:

Discover

Now that you've read the document, **read the commendations** – and if you want to go deeper, **the Appendices** will allow you to do just that.

Share

Pass this on to whoever you think needs to see it. Check out our animations at www.born-to-learn.org for the most accessible 'way in' to these ideas.

Act

Visit **www.battlingforthesoulofeducation.org** and **Follow us on Facebook** (Born to Learn) .... but, here is the real challenge. How are you as one of thousands in this movement, going to campaign for these issues in your community, so that an ever increasing number of people are bold enough to replace the school reform agenda with genuine educational transformation?'

Commendations

for *Battling for the Soul of Education*

Pete Mountstephen
Headmaster of St Stephen's Primary School, Bath, England, and Chair of National Primary Headteachers

Jeff Hopkins
Founder and Principal Educator, Pacific School of Innovation and Inquiry, Vancouver, British Columbia

Tony Little
Head Master, Eton College, England

Pete Mountstephen

Headmaster of St Stephen's Primary School Bath, England and Chair of National Primary Headteachers

I have been primary head teacher for well over twenty years now and it is my observation that over the years the battle lines have shifted.

Once we educationists, especially head teachers, were the drivers of change. No more; we have been emasculated in an accountability pincer movement between constant government generated initiatives (*what are we supposed to be doing now?*) and adversarial and destructive inspections (*Oh my God when are they coming and can I time my retirement to avoid them?*). Politics it seems rules the day… not children.

There has always been a dubious connection between politics and schools. Our aspirational timings are fundamentally in tension: teachers are planting oak trees, politicians are planting hanging baskets with their four year turnaround time, but things are far more troubling now because the voice of reason and experience. Those senior education professionals who actually know what they are talking about are trembling and silent.

Politics it seems rules the day, not children

Once I would have looked to head teacher colleagues to man the barricades, but I fear that the fight has been bled out of us; slowly and perniciously we have become the wrong people to fight for the soul of education. For the proof of my reluctant conclusions one need look no further than the attendance at courses. If I were to set up a course with a leading educational research speaker, I doubt that many would come (especially before the dreaded Wednesday Ofsted[35] watershed – the last day that a next day inspection can be announced) but if I set up an HMI[36] to talk about how to survive your next inspection it would be standing room only – whatever the day.

We are quite simply running scared. Frightened people are not the champions we seek. Frightened people never have and never will be.

As a head teacher I am a powerful person in my community, but I cannot refuse to return data or administer tests, however much I

35
The Office for Standards in Education, Children's Services and Skills (Ofsted) is the non-ministerial government department of Her Majesty's Chief Inspector of Schools in England (HMCI).

36
Her Majesty's Inspector.

despise the use that data will be put to, and I have no voice to argue. I am contractually bound to comply – the strength of any argument I may or may not have counts for nothing whatsoever. More vitally, I can refuse entry into my school grounds to almost anyone – but not an Ofsted team. I could probably block the Queen, but not Ofsted.

So I fear my colleagues are the wrong people to fight anymore – we are too busy working out exactly how to most deferentially doff our caps this month. We are nothing more vital than a king in check mate.

However, there is an energy that is free from all the fear and loathing that is all about the love of children and the intellectual desire to do the best we can for them. That lies with parents and employers and grandparents and… well, almost everyone else. Fact is, the battle for the soul of education is going to be won, or lost, by anyone and everyone who is prepared to stand up for children and what they really deserve which is our very, very best, not some tawdry data driven soundbite aimed to win the affections of a headline populist world.

There is an energy that is free from all the fear and loathing that is all about the love of children and the intellectual desire to do the best we can for them. That lies with parents, employers and grandparents and... well, almost everyone else.

So what might "our best" actually look like? This paper briefly illuminates some pointers.

John Abbott carries in his head a unique understanding of education. This document succinctly opens up this world to the reader with the extraordinary combination of a genuine depth of scholarship and authentic intellectual expectation coupled with simplicity and readability.

The "comprehension" I refer to is unique because of its Janus-like vision: John brings an immense understanding of the past whilst simultaneously critiquing the present and offering an alternative vision for a future that could be so much more informed by science, history, anthropology and all the polymath scholarship that he holds concurrently in his head.

We are engaged in a battle for the soul of education and the political lines are drawn up. This text shines much needed light on a battlefield that is always well populated with protagonists, but not always protagonists who are clear at all about topography or indeed the price, cost or even the real symmetry of the victory they seek.

Those of us who have known John for some considerable time are well

aware that the conclusions he has consistently drawn from his reading and reflection across a wide variety of disciplines are not comfortable ones. John does not argue for reform but for transformation. The quotation from Machiavelli cited by Tom Griffin at the end of this text is one that has an all too familiar ring to John; it is not easy being right when the implications of one's "rightness" are so very root and branch.

Battling for the Soul of Education is full of illuminating metaphor, but perhaps the most striking for me is that of the pointillist painting in the context of the challenges that currently face us, not merely in education, but rather through our responses to the challenges and opportunities of education in consideration of the entire human condition. The metaphor urges us to consider the whole issue as just that; a whole issue, rather than focusing in on one or more of the small dots and (literally) missing the point! John has, over 50 years of scholarship, positioned himself as the ideal person to "join the dots". He has both a great mind and a great heart.

This joining of available wisdom to clarify the best way forward for our children has been the focus of the 21st Century Learning Initiative for more than twenty years. It is the reason behind the Born to Learn and Responsible Subversives websites and John's excellent book, *Overschooled but Undereducated*. It is also why I have worked with and supported John for over two decades.

Battling for the Soul of Education hands on a baton to a new generation to take this most pressing of matters forward. As I have clearly stated above it will need a populist surge to move a populist powerbase. Experts are no longer the point –indeed they are viewed with suspicion and disregarded. To quote John:

> *"So, what kind of education is now required to prepare the younger generation for the kind of adult life which our society values and wishes to perpetuate?"*

If this question strikes you as important, and I cannot think of a more important one, then I unreservedly commend this text as the briefest way to really engage with the issues and prepare for battle.

The old guard are relying on you!

Pete Mountstephen has been a Headteacher for 24 years and led schools in a variety of settings from the "wild west" of inner city to "leafy lane" suburbia. He has been involved with National Primary Heads for 24 years and was chair of the South West region for five years before taking up the national chairmanship four years ago.

Jeff Hopkins

Founder and Principal Educator, Pacific School of Innovation & Inquiry

I believe that the word "soul" in the title of this document is indeed the correct term.

The industrialised world has spent many years and billions of dollars arguing about the wrong things in education. Throughout my own 21 years in various educational positions, I have lost count as to how many times it has been suggested to include a new topic in our curriculum. Business planning, first aid, mindful meditation, firearms training, Latin, driver training, suicide intervention, and peaceful civil disobedience are among the enormous list of subjects suggested for inclusion in the mandatory portion of the graduation curriculum here in British Columbia. These suggestions have come from politicians, parents, students, corporations, and community organisations.

The industrialised world has spent many years and billions of dollars arguing about the wrong things in education.

While there is little question that each topic suggested is rich and interesting and would likely help us to mould the well-rounded student that we agree we would like to see emerge from our schools, there are several problems with this approach. One problem is that there are simply not enough hours in the day (and night!) to offer each of these subjects in any depth. Another is that these suggestions do not address the soul of education – only the flesh and bones.

The "what we teach" part of education will and should be in constant flux as the world around us changes. In fact I would argue that it is quite important that we have a system that allows us to be as predictive and as responsive as possible as we evaluate what is, in fact, most necessary to be addressed in school.

It is the "how we teach and learn" part, though – the soul – that John Abbott writes about in this document. And it is the soul that defines us. Even the flesh and bones are inanimate without it.

While he is not the first person to describe the "how", he is one of only a very few people who gather together pertinent ideas from a variety of disciplines, cultures and eras into a consilience that cannot be

ignored. Rather than telling us that there is a new program or a new orthodoxy that should be adopted to save our school system, *Battling for the Soul of Education* is imploring us to realise that what we really know about learning goes beyond political ideology, funding levels, and specific content-based learning outcomes.

So why is it a battle? Quite simply, we have become a species that, for the most part, has been trained to digest only brief factoids and to believe in simplistic magic bullet solutions to our problems. It is actually a fight to convince people – especially those in power and ironically even many of those who are actually responsible for educational policy – to dig to the depth required to put all the necessary pieces together. Not only does this document tell us what the important pieces are – like the best Google search you could ever experience – but it also tells us how they fit together.

It is actually a fight to convince people – especially those in power and those who are actually responsible for educational policy – to dig to the depth required to put all the necessary pieces together

There is a famous saying that if you were to cut a horse in half you do not end up with two smaller horses. Unfortunately, it is precisely the kind of reductionist thinking that this saying warns against that has got us to where we are, perhaps especially in the field of education. And it is the very education that most of us experience that keeps our society focusing on thin veneers, red herrings, and straw dogs and prevents us from seeing the whole picture – the one we must see if we are to reform that system.

Happily, I have seen the lights turn on in the minds of dozens of school district superintendents, hundreds of school principals, and thousands of students all across British Columbia, once they have had a chance to hear what John Abbott brings to them. He somehow weaves a magical narrative that makes the complex seem quite simple and the necessary path for education transformation quite well illuminated. However, I have seen few follow that path, largely because of four year election cycles, distracting issues of funding and labour, but most of all because of the incredible escape velocity required to overcome the gravitational pull of the status quo.

It is far easier to keep something the same than to change it; almost no work is required to maintain a current state. So, when someone suggests system transformation, if those in power have not had a

To make change requires courage. This document provides the ingredients that can form the foundational conviction required for such courage.

chance to understand the reasons and the characteristics of a healthier system, it only requires their passivity to keep change from happening.

To make change requires courage. This document provides the ingredients that can form the foundational conviction required for such courage. To avoid the pitfall of moving from the frying pan into the fire, people – especially people in power – must be helped to see these complex ideas offered in what is probably their simplest form so that they can avoid the next short-lived, poorly-performing educational program or policy.

Jeff Hopkins has worked across many disciplines as a counsellor, vice principal and principal in British Columbia for just over 20 years. He is the founder and Principal Educator of the Pacific School of Innovation and Inquiry – an independent high school designed to provide a model for high school transformation. He is also the University of Victoria's first Educator in Residence, offering support to students and faculty as they contemplate what education could be.

Tony Little

Head Master, Eton College

Battling for the Soul of Education is a clarion call to debate and to action. I urge you to read it, because I have come to value the work of John Abbott whose historic understanding of why we are where we are gives valuable insights. He has the ability to create a coherent analysis weaving together different disciplines tempered by his own considerable depth of experience.

It is not John Abbott's intention to present a roadmap directing the reforms necessary to tweak performance in our schools. What he shows is the need for profound thinking about the role education plays for us as autonomous, independent, yet inter-connected and inter-dependent citizens – for all of us in society. As he argues, "the better educated people are, the less they need to be told what to do". Do we want our children to be questing, purposeful pilgrims, or passive customers?

Battling for the Soul of Education is a clarion call to debate and to action.

Looking back over my 25 years as a head teacher, I have witnessed a flurry of initiatives, mostly well intentioned – and mostly introducing layers of complexity and sometimes confusion. We make the business of the education of our young more complicated than it needs to be. Most parents want their children to grow to be well-integrated members of the community, capable of earning a living successfully, looking after themselves and their families and caring about the world around them. Yet somehow in the bustle of political change we seem to have lost sight of the things that really matter in our schools.

Two particular, fairly recent, developments concern me, and these speak to the big themes elucidated by John Abbott.

First, that the current culture of measurement of pupils' achievement (and, by definition, the success of their teachers) poses a major risk. Rigorous assessment is part of life and necessarily must be part of a child's education, but given a place of unfettered primacy it can seriously distort the quality of a child's education and, indeed, a child's perception of the point of it all.

One of the great strengths of a deep rooted and particularly British tradition of schooling has been belief in an holistic approach. This

has not been lip service, but a genuine belief that the child needs to be developed and celebrated for a wide range of skills and interests. A swift response would be to say that one can have measurable academic rigour and also an holistic education – they are not mutually exclusive. Of course this can happily be the case: some very good schools cherish and strongly promote this approach.

My fear is that there is a generation of very able young men and women coming into teaching who do not embrace breadth because they have picked up a message that the function of being a teacher is to deliver measurable goals.

The problem, and my fear, is that there is a generation of very able young men and women coming into teaching who do not embrace breadth because they have picked up a message that the function of being a teacher is to deliver measurable goals. I see this attitude with increasing frequency in schools I know well, both state and, to a lesser extent, independent.

The answer must lie in the way we train our teachers. It seems to me that we have never properly understood the significance and consequence of really effective teacher training. Good training focuses on pedagogical skills but, at least as importantly, on the values and philosophy that underpin what we do. Teachers, for example, should be applauded for recognising in their professional practice that young people learn as much from each other as from adults, and at least as much outside the classroom as in it.

Over the past decade in England it has become hard to see the big picture. National policy has stressed the significance of the achievement of individual schools. The success of some individual, semi-autonomous schools has been remarkable and there is an argument that a beacon of achievement in one school may illuminate its neighbours, but observation suggests this is not a universal truth. In many areas the disparity between schools has grown. Inevitably this means that some children are, in effect, left behind. It is hard to see how all children in all schools will benefit from the challenge and improvement found in some schools when competition rather than collaboration seems the order of the day. The worry is that the fragmentation of the school system allows too many casualties. The answer may lie in the creation of school regions with direct democratic accountability. John Abbott writes about the example of British

Columbia, making the point that the origins of the idea stem from Victorian England. As so often, the past offers a vision, or at least a glimpse, of effective education.

It will take a transformation of attitude about the purpose and value of education, shaped and sustained by the vital triumvirate of school, home and community

One such powerful vision comes to us from the poet John Milton. John Abbott celebrates the Miltonic ideal of a worthwhile life lived justly, skilfully and magnanimously: the attributes and essence of the true citizen. As a parent, educator and citizen, this is what I would wish for our young people and for their education. As John Abbott observes, however, the ideal is well enough, but it will take a transformation of attitude about the purpose and value of education, shaped and sustained by the vital triumvirate of school, home and community, if we are to come close to it. One thing is clear – if we wish for inspiring, effective education for all, we must, as citizens, be engaged.

Tony Little has been a teacher for over thirty-five years, twenty-four of them as a head. He became Head Master of Eton in 2002. As a governor of state and independent schools, as current President of the International Boys Schools' Coalition and as supporter of local partnership schemes both at home and abroad, he has wide experience of schools of different types in varying circumstances.

Appendices

Here follows the appendices – accompanying documents to provide a fuller context to the arguments in *Battling for the Soul of Education* and the subsequent Commendations.

Appendix A

The briefest possible summary of English schooling up to 2014

For further understanding see 'The Nature of England's Educational Dilemma'

By the early 17th century England (as with Finland, see below) had probably similar proportions of pre-pubescent youth in what we would now recognise as schools (perhaps 10%) as any other European country. When John Milton (the leading puritan political philosopher) in 1644 argued for 'a complete and generous education that fits a man to perform justly, skilfully and magnanimously all the offices both public and private, of peace and in war', he went on with the quite radical proposal for a national system of schooling funded by locally raised taxes as a pre-requisite for a functional democratic society.

This never happened. Yet, not much more than a century later, Britain led the world into the Industrial Revolution. How did this happen?

Victorians convinced themselves that this was due to some form of innate national genius. Only recently have historians and evolutionary scientists been able to recognise that this was far more to do with the high levels of applied practical skills to be found widely across the country based on intensive and widespread applied craft skills developed in numerous forms of apprenticeship; it had little, if anything, to do with what was taught in schoolrooms. Quite simply, this was a good blend of thinking with doing.

How to keep hooligan children off the streets...

The phenomenal wealth generated in the early industrial age blinded contemporary thinkers to the reality that vast numbers of the children of these new factory workers lacked both parental nurture and any induction into useful trades. With political thinking dominated by the concept of laissez-faire, Parliament simply left it to the Churches and other philanthropists, as acts of charity, to set up schools as a way of keeping children off the streets.

In the meantime, Dr Arnold seeing a unique social/education opportunity, defined the Victorian Public School (circa 1870) as an elite, fee-paying, boarding school for the sons of emerging gentlemen whose fathers had no desire for their sons to go into the very factories where, in the dust and grime, they themselves had spent their formative years, and who were prepared to pay a small fortune for the experience.

From 1830, Government steps in

Public education for the masses did not start until 1830 when Parliament made its first almost-token financial contribution. By that time Church schools were providing some form of instruction to 1.5 million children (twice as many twenty years later) in some 17,000 separate charity schools. Not until 1870 did Parliament legislate for groups of citizens to bind together to establish School Boards empowered by Law to levy a rate on all households to fund the proper education of all children in locally-provided Elementary schools. So successful was this that within 30 years (1902) some 2,500 separately locally elected Boards were educating more than half the country's children, some of which offered classes for young people of up to sixteen years of age.

In 1902, School Boards get abolished – victims of their own success

The very success of the School Boards antagonised both the patrons of private and church schools ("Why should I maintain my neighbour's illegitimate child...who demands more than his parents can give him," vehemently declaimed the Headmaster of what was to become one of the most elite, private, Public Schools.... "School Boards promise to be an excellent example of public robbery..."). The Board Schools so challenged the dominant conservative mindset that Parliament abolished them in 1902 along with their locally elected trustees, and replaced them (leaving the Church and private schools to continue as they were) by a national system of schools directly administered by Westminster, and limited any form of state assisted education to below the age of 14. It was a disaster for which English society still pays the price.

Post WW2, England introduces a tripartite system

With the outbreak of World War II only 18% of 14 year-olds in England were still in school – the lowest proportion of any European country. Recognising that England needed assurance if, for a second time in a generation, forcible conscription were to be the price of victory, Parliament pledged – once the War was over – to introduce a full national system of state-funded schooling through to the age of 15 (soon 16). Up until this point the Finnish and English school systems had been reasonably similar as a result of interpreting Comenius'/Milton's thinking for the previous three centuries. However, Finland – having been totally decimated, first by the war with the Russians, and then with the Germans – recognised in 1945-46 that it had to totally rebuild its education system. England by contrast as

the victors, saw themselves simply modernising their existing school system. To achieve this, conventional thinking resulted in a tripartite system of secondary schooling based on a kind of intelligence test at the age of 11, which would allocate roughly the top 25% of ability to grammar, the next 10% to technical and the remaining two thirds to secondary modern schools.

The damaging impact of two theories about learning

Two theories about human intellectual capabilities each of which contained an element of truth but when promoted as the ultimate explanation were to do immense damage to English education, began circulating in the 1920s. John B. Watson, an early enthusiast for Scientific Management, claimed that the brain was simply a 'blank slate' with no inherited preferred ways of doing things. To Behaviourists like Watson, children's minds were simply putty waiting to be shaped by teachers, and so quality instruction came to be seen as infinitely more important than thinking for oneself. This placed excessive dependence on the classroom as a closed environment where what was taught (input) and what was learnt (output) could be precisely quantified.

Cyril Burt, an English psychologist, offered a very different explanation. Through the study of identical twins in the 1930s he claimed that inheritance accounted for some 80% of intelligence, so concluding that the social divisions of mid-twentieth century England were a natural result of evolutionary processes. Consequently Burt recommended that funding for education should be allocated on the basis of intelligence tests to those who would yield the highest gain – i.e. to the brighter pupils.

R.A. Butler as the English Minister of Education, in his plans for post-war education, sought to limit the role of central government to general policy, leaving the implementation to newly established Local Education Authorities (LEAs – vastly expanded and consequently less-effective forms of the old School Boards abolished forty years before). In order to fund the creation of secondary schools Butler took three years off the earlier Elementary school curriculum. The reliance placed on dodgy research data into the actual predictability of IQ tests generated in the late 1930s was later shown to misplace 20% of children.

The 1960s, and the arrival of the Comprehensive

Butler's plan demonstrably did not work and right across the country there was an increasing appetite to do away with the 11+ exam. Consequently by 1965, with little apparent confidence in how these would work in practice, LEAs were told to turn all secondary schools into non-selective Comprehensive schools. As the school leaving age was progressively raised this meant that many such schools became disproportionately large – yet no attempt was made to return part of the curriculum (and its resources) to the increasingly acknowledged significant early years (insights from evolutionary biology only started to become available in the mid 1970s).

The ineffective translation of such ideas resulted in the tragedy of educational policy starting in the late 1960s. Teachers required to do something for which they had not been qualified, or to which they were not committed, compounded by uncertain parental attitudes, destroyed such great expectations. It also bequeathed to this very day a cynicism in the House of Commons that any policy based more on how children learn, than on the rigor of how they are taught, are simply dangerously 'progressive'.

Initially both Labour and Conservatives supported the comprehensive principle. Edward Boyle the Conservative minister acknowledged that England would never realise its potential until all children, regardless of class, received an equal education. In that spirit many grammar schools were closed in the late '60s but, as the difficulties of reorganisation grew greater, the pace slackened and political consensus broke down.

The 1970s and Labour's catastrophic attempt at a full comprehensive system

Winning the 1974 election, Labour became determined that nothing should get in the way of achieving a full comprehensive system. Not yet strong enough to take on the Public Schools, Labour saw in direct grant grammar schools an easier target. Many of these were old grammar schools that had decided not to become Public Schools in the nineteenth century, but who had accepted government grants in the 1920s and '30s to take in youngsters on government scholarships, thereby reducing the pressure on government to build more "provided" grammar schools.

There were some 170 such schools (including Manchester Grammar School, Leeds, Lancaster, Bristol, Bradford etc.), which government assumed, if converted to comprehensives, would clear out the old grammar school system. Labour's political ploy backfired badly, for just over one hundred of these schools opted for independence. Rather than hastening the end of independent schools this unexpectedly increased their numbers, and so posed an ever greater challenge to the comprehensive system.

The damaging lagtime between scientific research and industrial innovation

A prime reason for Britain's sluggish economic performance in the 1970s and '80s was the slowness of "knowledge transfer"

between scientific research and industrial innovation. Knowledge transfer between educational theory and practice was even slower. Policies in the 1980s, especially the much hyped *Great Education Reform Bill* (GERBIL), were shaped virtually exclusively by political theories concerning free-market choice coloured by the antipathy of national politicians towards local government, and a deep distrust of teachers.

Not only was no attempt made to interpret recent bio-medical and cognitive research (based on functional MRI scans) on how the brain works, and how humans consequently learn, such research was often dismissed as politically motivated. Which was crazy, for much of the tension between politicians and teachers centre upon the tricky distinction between learning and teaching, for while good teaching most obviously stimulates learning, the wrong kind of teaching or the wrong set of circumstances, all too easily destroys a youngster's confidence in thinking things out for itself.

The 1990s and the flawed national curriculum

Quality education in England has simply fallen between the cracks left between ill-fitting planks of a grossly over-specific curriculum. Far from its claim of being the best national curriculum that could ever be devised, it was so flawed and so unworkable that after much vicious fighting, and totally impossible demands placed upon teachers, the curriculum ended up much as it had been in 1988, with a government spokesman apologising in 1993 that "This was because the early architects of the whole system built in too much bureaucracy, and too much convolution".

Those battles radically reshaped the social landscape. Parents, having been told that they should hold the school responsible for the education of their children, became so set against teachers that the stuffing was knocked out of what good teaching, and good schools, were all about. Warning government of what would be lost if education failed to recognise the significance of those changes in brain structure which automatically shift the clone-like learning of the pre-pubescent child into the self-selective learning of the adolescent, then the opportunity to reallocate resources so as to 'front-load' the system, would be lost. Senior policy officials in 1996 said of this, "The system you are arguing for would require very good teachers. We are not convinced there will ever be enough good teachers. So instead we are going for a teacher-proof system of organising schools – that way we can get a uniform standard".

A regime of endless testing

New Labour's belief in "performability" meant that management by objectives would permeate every aspect of public life. Especially education. If results did not improve it meant that the system needed further refinement. There was to be nothing "soft" about the country's vision for education with government claiming, in 2001, "The work of the Department of Education and Employment fits with the new economic imperative of supply-side investment for national prosperity". To this end the regime of endless testing was bent to demonstrate to an ever more anxious public that it really was safe to assume that schools could do it all.

Present day: our overschooled but undereducated children

Consequently, by so misunderstanding the nature of human learning England has forgotten that for children to grow up properly there has to be much more to education than simply sitting in the classroom. But, as the twenty-first century got underway, there were ever fewer safe places for children to sit in, ever fewer opportunities for them to learn from experience and – in a country dominated by adults' desire to earn still more money – precious few opportunities to listen carefully to what an older person might have to say. British children came bottom of The UNICEF *Well-Being Report* (2007) because, under continuous pressure to improve the economy, home and community have been weakened as government has expanded the role of the school, effectively creating a whole new generation of overschooled but undereducated young people.

It is taking English politicians a very long time to realize that schools alone cannot provide young people with enough learning opportunities that could, once experienced, lead to the development of a range of skills necessary to create and live responsible lives. For too long policy-makers have forgotten that home and community are as integral to a balanced education, as are the schools and their curricula. It should be politically feasible to draw together four strands of current Coalition policy – Big Society, Regionalism, Local Financial Responsibility, and the structure of Education – to open up presently untapped opportunities to create a nation of responsible, thoughtful and enterprising people. A successful melding of currently disconnected Departmental policies will however require a better appreciation by all involved of the dynamics of human learning, of the motivators of behaviour, the origins of social capital and the functioning of civil society.

Appendix B

The Nature of England's Educational Dilemma

As written December 2013,with reference to Finland, certain Far Eastern countries and the PISA Report of December 2013

What it's all about

The basic function of education in all societies and at all times is to prepare the younger generation for the kind of adult life which that society values, and wishes to perpetuate.

Those values change over time so that the present structure of English education is a result of numerous decisions taken in times past by educationalists and politicians as they reacted to social and economic environments very different to today. Those earlier decisions were coloured by the philosophic, religious and psychological understandings of past generations about how people behave, how intelligence is created, and how those in power thought society should be shaped.

Contemporary research in the bio-medical, social and cognitive sciences into the relationship between innate human nature, and socially-constructed nurture, shows how misinformed and inadequate were many of those earlier decisions. Unfortunately, so deeply entrenched have these assumptions become that, given Parliamentarians' pressure to find solutions to urgent and current problems, few policy makers have the time (or the depth of knowledge) to question the validity of such 'foundational' assumptions. They fail to question whether such assumptions are rock-solid eternal truths or shifting sands which compensate for their lack of substance by their sheer bulk.

Which raises the key question – does contemporary educational policy simply react to symptoms, whilst failing to address underlying design faults? If the answer is "yes", how can future policy avoid such faults and build its programmes on firmer foundations?

The truism is stark – those who fail to understand their history simply live to make the same mistakes again. Unravelling the relationship of nature to nurture, and then coming to terms with those misunderstandings from the past that colour contemporary judgements, is not easy. Yet to fail to do this is to undermine new policies, and perpetuate under-performance

Part one

Umbutu

'Umbutu' – a traditional African greeting apparently used over thousands of years when different tribes come together - simply means 'how goes it with the children?' To an Englishman this resonates with John Milton's declaration in 1641 that education should fit "a man to perform justly, skillfully and magnanimously". Both recognise that the bringing up of children has as much to do with the home and community as with formal schooling; together they are about the preparation of young people to take over from their ever-aging parents. To Africans 'living on the edge', this is nothing short of a life and death issue, for on the education of the next generation the continuation of a way of living, of a civilization, is utterly dependent.

Such a broad, traditional perspective seems to have been lost in England and other industrialised nations as our lives have become ever more institutionalised and the relationship between individual and corporate responsibility has become blurred. Seeing where the individual's responsibility rests has become increasingly difficult. It is the cause of the conflict between proponents of 'outcome-based education' and those who argue for teaching children how to think for themselves. This became more difficult when, in 1944, the English split the all-through school into separate primary and secondary schools at the age of 11 - a foundational assumption which has far reaching and damaging implications.

Why transferring to secondary school at 11 is a traumatic compromise

Few policy makers now alive remember the all-through Elementary schools from the age of 5 to 14 that existed everywhere in England up to 1944 and which educated more than 95% of the population. Today transfer at the age of eleven is simply taken for granted, despite the fact that until as recently as the 1990s nearly all independent Public Schools opted for the older age of thirteen and a half. To transfer to secondary school at the age of eleven is not based on any research or proven good practice that this is a developmentally appropriate age for children, coming as it does a year or so before the mental disruption that often accompanies the onset of adolescence. Few now remember that transfer at the age of eleven was simply the result of last-minute compromises taken in 1944 when politicians in a hurry to build a fully national system of secondary education – but with very little extra money –resorted to cutting three years off the earlier elementary school curriculum to create the four-year secondary school (five years from 1973).

As a result of this design fault, English youngsters have experienced for nearly 70 years a primary curriculum that has taken the earlier nine year elementary curriculum and squeezed it into six years. This has resulted in large numbers of youngsters failing to master essential basic skills before

transferring to much larger secondary schools, all too often developmentally and emotionally under-prepared for a very different kind of education. The origins of primary and secondary schools are very different as this paper will later explain, so is their pedagogy (the theory and practice of teaching) often expressed as "primary teachers teach pupils while secondary schools teach subjects". Many children never come to terms with the trauma of this transfer – they lose interest in learning and confidence in working things out for themselves.

Why is the English school system ranking so badly?

English education has been in need of a radical transformation rather than a continuous programme of school reform. Statistics are important, but only tell part of the story; the OECD's PISA analysis of 2009 saw the UK ranked 28th in the world for mathematics, 16th in science and 25th in reading. **This same analysis** consistently shows Finland achieving the highest score in literacy, numeracy and science with, in the last few years, South Korea, China and Singapore joining them at the top.

Looking more broadly at how to attain Milton's vision, the deficiencies become stark. A 2013 UNICEF report placed the experience of English children as sixteenth in a table of child well-being in the world's richest countries. There are particular concerns over the numbers of young people under 19 not in education, employment or training. In addition, the UK continues to have high teenage pregnancy rates, one of the highest alcohol abuse rates in 11 to 15 year olds, and most disappointingly high levels of youth unemployment in the 18-25 year olds.

What is it about Finland and these South-East Asian countries that enables them to increasingly occupy many of the top places, and how is it that Britain seems so different?

In addition to these countries being more socially cohesive than Britain, they seem to take education far more seriously than the British. Finland has a strong Lutheran tradition, while the South-East Asian countries have strongly Confucian societies. These cultures hold teachers and parents in high regard. There the similarities cease. China, South Korea and Singapore follow a highly-regimented and prescriptive curriculum which is exam and teacher dominated, and requires pupils to supplement formal schooling with long hours of extra tuition. Finland couldn't be more different. Finland's focus on a good education for all, not on being the best, has seen it exceed its rich-world counterparts on a broad range of issues whilst reducing the gap between the best and least performers to the narrowest in the world. It is better than most and as good as anybody in measures of areas as diverse as child well-being, PISA scores, child poverty rate, least failed state, technological advancement, economic competitiveness, global equity index, income inequality, gender gap, global innovation index, UN happiness index… the list goes on.

Why does Finland perform so much better?

An international study published in 2009 on "Why more equal societies almost always do better" explains a critical factor in understanding the relationship between England and Finland: Finland is more socially cohesive than England. While the ratio of the income of the richest fifth to the poorest fifth in Finland is only 1:3.7, in the United Kingdom it is 1:7.2 and in the United States it is 1:8.3.

The Finns explain their success partly by quoting the Czech philosopher Jan Amos Comenius whose book The Great Didactic (1638) can be seen as the father of what, in the latter twentieth century, came to be known as child-centred pedagogy. Comenius wrote "following in the footsteps of nature (learning) will be easy if it begins before the mind is corrupted, if it proceeds from the general to the particular; from what is easy to that which is more difficult; and if a pupil is not over-whelmed by too many subjects, and if its intellect is forced to nothing to which its natural bent does not incline it".

Four centuries later, studies in neurobiology, cognitive science and evolutionary studies have started to unpick the deep neurological structures that create that 'natural bent', (often now called "the grain of the brain"), which Comenius understood so well. Observers also note that the English experience of war had been tough but not so tough as to challenge them to re-think the whole school system, and equally important the whole nature of civil society. Consequently the English entered the post-war years on a policy of rebuilding early structures, rather than the Finns whose wartime experience had been so devastating that they knew that they had to seriously question every assumption on which their education was based.

Since the reforms of 1970 (the Finnish Comprehensive School Curriculum), the Finns do not believe that children are mature enough to go to school until they are seven years old, so government policy is strongly supportive of families and 'child-friendly' communities which create very rich informal, early-learning opportunities. Believing that emotional development precedes intellectual growth, Finland insists that every teacher holds both an honours degree in an academic discipline as well as having a three-year pedagogic degree, also at an honours level. In practice Finnish teachers have to combine what the English see as the separate expertise of primary and secondary practice, and apply such insights when teaching pupils of any age. This pays off handsomely. The

English should remember that their commentators have been saying similar things for a long time. In 1952 it had been said, "All considerations of the curriculum should consider how best to use subjects for the purpose of education, rather than regarding education as the by-product of the efficient teaching of subjects". Seven years later *The Crowther Report* stated "Until education is conceived as a whole process in which mind, body and soul are jointly guided towards maturity, a child's personality will not necessarily be developed".

The Finns fully understand such sentiments, but it seems that the English do not. The Finns place an enormous emphasis on emotional development as the precursor to intellectual growth in the earliest years of schooling. Children are taught by no more than two teachers in their earlier years so enabling teachers to get to know their pupils very well. Their schools are small and rarely have more than 700 pupils, for the full age range of seven to sixteen. There is virtually no national – and only limited province-wide – curriculum prescription as the Finns believe that the details of the curriculum are best left to individual schools and teachers to decide. Few children attend independent schools. Given the supportive home and community background of Finnish children their schools are free to concentrate on the rigorous development of mental and academic skills – they work pupils hard, but humanely, and reach the highest standards quickly. The first non-school based exam is taken at the age of 16 and is used as a diagnostic guide to suitable forms of further education … to which 97% of the students progress.

Part two

Why aren't the English as good as the Finns?

(see Appendix D)

It is the differences in our respective cultures which most help to go beyond quantifiable statistics for an understanding of how we have reach our current disparity: cultural issues from the distant and not-so-distant past exercise a powerful, if subconscious, influence on the present.

The first schools

For a thousand years before the reign of Henry VIII (1509-47) the Catholic Church had taught that life on earth was simply a testing ground for Eternity. Education was pre-eminently a religious issue taught in some two hundred monastic schools whose prime purpose was to train young boys to chant the Mass, and were known as Song Schools. However, as the language of the Church was Latin at a time when there was no systematic English language, Song Schools progressively became known as Grammar Schools (to a boy in the 10th or 11th century to learn Latin was comparable to a boy in Africa today learning English – it was an essential transferable skill).

The impact of the Reformation

The Reformation, in addition to destroying both monasteries and schools, effectively broadened the individual's responsibility to work out both his earthly as well as heavenly destiny, and effectively repositioned education as the means of improving the individual's immediate condition. The only partially-reformed grammar schools set up in some four hundred and fifty market towns but normally with fewer than fifty pupils, retained the classical Christian/Roman curriculum. Instruction was exclusively in Latin, with the curious injunction that theory was always more important than practice. Roger Ascham, formerly tutor to Queen Elizabeth, stated in *The Scholemaster* (1570) – the first book in English about education - that "teachers should cultivate hard wits, rather than the superficial quick wits of those youngsters whose memories are good, but who cannot work things out for themselves". Placing an excessive emphasis on rote learning and language skills meant that such an education, while essential for future lawyers, clerics, and administrators, became increasingly irrelevant to the emerging commercial world of late Tudor times.

The Miltonian vision for education

By the early seventeenth century the English, having accepted Puritan theology, then wanted to take control of secular affairs, and so challenged the autocratic power of the King. With the ending of the Civil War the Puritans set out to create a Parliamentary democracy, and it is here that Jan Amos Comenius with his belief in the potential of education to release human creativity, briefly enters the English story. John Milton was appointed by Cromwell to be his Secretary for Foreign Affairs. Milton recognised that the republic the Puritans were struggling to create could only survive if it were sustained by a mature and educated populace able to deal with contentious affairs through reasoned argument. Milton, much influenced by Comenius, argued that as a prelude to creating a functional democracy, schools should be built in every town and village to teach people to read. Believing strongly in a work ethic, Milton also proposed replacing the grammar schools with what he called Academies which would provide a broad education for boys aged between twelve and twenty-one offering instruction in both artisan skills and academic disciplines.

Milton defined an education for an interdependent society in those splendid 28 words;

> *I call a complete and generous education that which fits a man to perform justly, skillfully and magnanimously in all the offices public and private, of peace and war. (1644)*

If ever there was a bold, no-nonsense statement about the development of the all-round person, Milton had it. Milton invited Comenius to England, but with the death of Cromwell the Republic collapsed, Milton lost his influence and Comenius went instead to Finland. The rest is history. With the Restoration (1660) the English dream of a Parliamentary democracy was lost, Milton reverted to writing poetry and the old English grammar schools were never reformed, and no attempt was made to create a truly national system of education for the next two hundred years. To Charles II and the Stuart aristocracy, education was about keeping the masses under control, while making it possible for those of their sons who would not inherit their wealth to qualify as lawyers, soldiers or men of business.

Milton's legacy and the dawn of the Industrial Revolution

By the beginning of the eighteenth century the high seriousness of the earlier Puritans had bequeathed to subsequent generations an energy and inquisitiveness that converged with a variety of favourable geographic and economic circumstances, to create a ferment of innovation. Taking their cue from Pilgrim's Progress which, after the Bible, remained the second most widely read book in the English language until early in the nineteenth century, ordinary English men and women saw it as their personal duty to act responsibly and thoughtfully in everything they did. Here was the spontaneous expression of a nation's energy, dependent not simply on the brilliance of inventors but on the practical skills of carpenters and blacksmiths, goldsmiths, clockmakers, engineers and countless apprentices able to turn new designs instantly into new products. It was this practical creativity that was the greatest asset that England has ever possessed – self-improvement, especially the ability to read, was the nation's driving force.

The young Horatio Nelson's parents were typical of their time in sending their eleven year old son in 1769 to 'learn on the job' as a midshipman in the Navy. "Do not imagine that the knowledge I recommend to you is confined to books … books alone will never teach it to you; but they will suggest many things to your observation which might otherwise escape you," wrote the Earl of Chesterfield to his son in 1746. So universal was that sentiment that many grammar schools simply disappeared through lack of pupils; Winchester College received only 10 pupils in 1750 and student numbers at Oxford and Cambridge fell by almost a half. In a society where most people were too busy to go to school, innovation knew no limits.

> *RESEARCH emerging in the past twenty or so years from evolution, anthropology and cognitive sciences, helps to explain how the way of living of mid-eighteenth century Englishmen represented the finest balance to be found anywhere in the world between the evolution of the internal mechanisms of the brain that had been going on for several million years, and a manageable but always challenging physical and cultural environment that had developed over several hundred years. Craftsmen and apprentices alike thrived through reciprocal behaviour, empathetic understanding, collaborative skills and delight in experimentation. Such skills and practices draw on what Professor Gardener was to show in 1983 were the different, but inter-dependent, multiple intelligences that evolutionary studies now suggest have grown over thousands of generations to become innate pre-dispositions to learn and behave in ways which enhance the individual's chances of survival. Such pre-dispositions, being innate, are only expressed if they are first activated by external environmental factors – some aspects of human nature remain largely hidden unless they are unlocked by an appropriate culture (nurture). Mid-eighteenth century England led the world into the Industrial Revolution by achieving a remarkable confluence of thinking and doing as ordinary people used an array of intelligences to thrive on a day-to-day basis.*

From robust individualism to dumbing down

The Industrial Revolution changed every aspect of this equation. While some individuals were to become phenomenally wealthy, the descendants of countless generations of self-taught farmers, small tradesmen and craftsmen, who made all this innovation actually happen, saw the craft traditions they had inherited from their forbearers completely disappear within a couple of generations. Robust individualism was replaced by an unthoughtful, demotivated and unskilled mob of people, ready only for the life the factory that was created. Subsequently, for millions of youngsters over several generations, their nature was forgotten, their innate pre-dispositions totally ignored, so depriving them of that nurture which is essential to the brain's natural functioning.

Here was social melt-down on a scale never before experienced, or anticipated. The Industrial Revolution took England rapidly up a series of steps so steep that society started to suffer from vertigo as vast numbers of ordinary people found no every-day nurture to activate these pre-dispositions

which in earlier generations had enabled their ancestors to survive and thrive. This was dumbing down on a vast scale.

Part three

From Hands-on Apprentices to Hands-off Pupils

England's reservoir of thoughtful, innovative people was drastically reduced during the early stages of the Industrial Revolution. While many former apprentices became phenomenally wealthy by mechanising the very processes which had earlier given them their expertise, such men in their affluent old age failed to recognise that such informal ways of transmitting skills would disappear as factory operatives replaced independent self-taught craftsmen.

As productive employment moved away from home-based workshops into factories in the cities, so traditional social structures collapsed, especially the Dame Schools (of which it is thought there were some two thousand around the country) where older women of the parish had earlier taught youngsters to read and write in church porches, which probably explains why four out of five of the soldiers in Cromwell's New Model Army of the 1640's could sign their names. Working men lost their dignity; literacy levels fell; communities collapsed, and family life fell apart. It was as Adam Smith had anticipated – industrialisation destroyed "the alert intelligence of the craftsmen" and turned their descendants into factory operatives who were "generally as stupid and ignorant as it is possible for human nature to become". Soon there was nobody left to care for the children.

The new Sunday Schools, or 'economy schooling'

By the early 1790s what to do with uncared-for children increasingly disturbed public consciousness. Seeing its role limited largely to national defense, foreign policy, and the maintenance of law and order, laissez-faire parliamentarians believed that all other issues were best left to private individuals to solve. The first to do so were the churches motivated as much by the spiritual needs of children, as by their social distress. The churches started to establish Sunday Schools (on the only day in the week in which the factories were closed), and taught children to read, how to behave and gave them probably their only cooked meal of the week. By 1800 the Sunday Schools attracted some three-quarters of a million children every week and by 1830 were educating more than two million children. The Churches then went on to build elementary schools (1,200 schools by 1820, and 3,000 and more by 1830). Here were the origins of today's English elementary schools –acts of charity designed to keep children off the streets, and induct them into the Christian religion.

There was nothing of Milton's "magnanimous" in these arrangements. Such "economy" schooling was based on a scheme first developed for orphans in India that squeezed 660 pupils into a room 39 feet wide and 106 feet long where one teacher, assisted by 24 monitors (the best of the previous year's pupils) claimed to "educate" a child for 35 pence a year. But even this antagonised the laissez-faire Establishment; "Giving education to the labouring classes and the poor would, in effect, be prejudicial to their morals and happiness" (1818), claimed MPs who quickly came to despise elementary school teachers who Lord Macaulay (1800-1859) described as "the refuse of all callings, to whom no gentleman would entrust the keys of his wine cellar".

> *RESEARCHERS in a number of neurological disciplines can now show the importance of early nurture on the way in which a young child's brain develops – especially in the way emotional growth precedes intellectual development. Yet nineteenth century Victorians had accepted their Queen's comment that "children should be seen and not heard". As we now know starving a young child of such nurture and stimulus makes it increasingly difficult to compensate for this later in life. Studies in Epigenetics are beginning to suggest that an extremely impoverished emotional environment may subsequently be transmitted genetically to the next generation, which may explain the phenomena of learned helplessness found in many decaying industrial communities.*

The first Public Schools

As it became acceptable for the education of the poor to be provided through the charity of the successful, newly-rich entrepreneurs then found that they too had a problem – they were so busy emulating the life of the gentry that they neither wanted their adolescent sons hanging around the home nor going through the same grubby apprenticeships which had earlier made them wealthy. It was Dr. Arnold of Rugby in 1827 who offered the emerging middle classes what became known as a Public School education (though it was elite, expensive and not available to working people) that would take their sons off their hands for eight months of the year and introduced them only to children like themselves.

It combined a deep commitment to Christian values with the old classical curriculum, which had been saved from collapse by a curious law case. In 1805 people of Newcastle petitioned Parliament for a change in the Trust Deed of their ancient grammar school to enable it to teach modern languages, commercial subjects and mathematics. The case

became a defining point in nineteenth century social policy. The case came before Lord Eldon, the Lord Chancellor and an archetypal self-made Victorian whose grandfather had been a coal deliveryman. Eldon, himself, having done well in the law, became overzealous in suppressing the very social class from which his ancestors had come. He threw out the petition, claiming that "it was a scheme to promote the merchants of Leeds at the expense of poor, classical scholars." He then enacted legislation that effectively prevented any of the country's grammar schools from teaching modern languages or mathematics until 1840, so still further weakening the schools attractiveness to the commercial classes.

A tale of two nations

Dr. Arnold, by insisting that pupils should have learnt Latin in expensive preparatory schools before going to a Public School, made this a demonstration of the financial ability of future parents to afford a Public School education. In so doing he drove an educational wedge through English society. He took this distinction even further by virtually banning the teaching of science because its very practical significance reminded the fathers of his pupils of the industrial world in which they were now embarrassed to admit that they had made their fortunes.

So while the Churches were providing some form of elementary education for the children of the poor on three or four pence a week *as a public good*, the emerging middle classes were paying fifty or a hundred times that amount for a Public School education which would *forever buy their sons privilege*. Each new generation of their pupils were inculcated with Plato's teaching that society should be separated into three categories, the leaders, the technicians and the manual workers – such a view of life having been totally rejected by the Puritans a century before. As such nineteenth century boys-became-men, they convinced themselves that, by the nature of the education which their father's wealth had procured for them, they were predestined to be the rulers in an increasingly class-conscious society.

Competition over collaboration

Unlike their fathers whose earlier apprenticeships had been worked out entirely within the context of community and family, boarders at the new Public Schools grew up almost totally unaware of how the 'other half' lived. Needing to occupy their spare time (time their fathers had spent 'hanging out' with other apprentices) Public Schools effectively invented compulsory team games as a way of using up adolescent energy, and burning off excess testosterone. Several generations of such practices meant that "the penalty of belonging to a Public School is that one plays before a looking-glass all the time and has to think about the impression one is making. And as Public Schools are run on the worn-out fallacy that there can't be progress without competition, games as well as everything degenerates into a means of giving free play to the lower instincts of men". Life to such impressionable youngsters was more about team loyalty than independent thought, for to them life was a zero-sum game of winners and losers. What mattered was whose side you were on; competition was rapidly replacing the collaboration tradition that had given the eighteenth century its vitality.

> *RESEARCHERS in 2007 challenged the popular interpretation of Darwin and "selfish genes" as the predominant explanation for selfish behaviour by showing that, in the struggle for survival, homogenous groups are every bit as significant as individual self-centeredness. Evolutionary psychologists rediscovered Darwin's belief that a high standard of morality gives an immense advantage to one tribe over another and concluded: "Selfishness beats altruism within an individual group, but altruistic groups beat selfish groups every time". In other words Finland, by not concentrating on becoming Number One but instead concentrating on good schools for everyone – including giving preferential support for those in the greatest need – consistently comes out as one of the best educators.*

Mid-Victorian society, instead of moving towards Milton's dream of an educated populace able to sustain a democracy, was fast becoming "two nations, between whom there was no intercourse, no sympathy; who were as ignorant of each other's habits, thoughts and feelings as if they were dwellers in different zones, or inhabitants of different planets".

Part four

The 1870 Education Act

It was not until 1833 that Parliament reluctantly made its first grant of £30,000 towards the work of the churches in educating the children of the poor, administered on a 'Payment by Results' formulae. Each year every child was quizzed by an inspector on four core subjects, and for each subject a child failed the grant to the school was reduced. Management of this dreadful scheme was conducted "by officials who, by all accounts, knew little and cared less, about the education of the poorer classes and who … treated elementary teachers with contempt".

"In a country where everyone is prone to rely too much on mechanical process, and too little on intelligence … a mechanical twist to school teaching gives a mechanical turn to inspection, which must be most trying to the intellectual life of the school". Not that there was much intellectual life

in such schools for education was about memorisation and conformity, certainly not about the Puritan belief in taking control of your own destiny. "In this life, we want nothing but facts, sir; nothing but facts" claimed Mr. Gradgrind in 1854 describing Mr. McChoakumchild, the archetypal teacher, and "some hundred and forty other schoolmasters, (as being) lately turned at the same time, in the same factory, on the same principle like so many pianoforte legs … if he had only learnt a little less, how infinitely better might he have taught much more!"

The arrival of School Boards

By 1870 the churches had built enough elementary schools to educate about two-thirds of the population. Eventually Parliament accepted a public responsibility for national education with the Education Act of 1870 (known significantly in its drafting stage as *The Education of the Poor Act*). The principles of this act were incorporated two years later into the British North America Act of 1872. In England this Act recognised that the churches could never create schools for everyone, and so set up arrangements whereby people living in areas with no church schools could elect a School Board with powers to levy taxes on all house owners to build and maintain schools, and develop the appropriate curricula, so in effect creating the two systems of elementary schools – one delivered by the churches, and the other by locally-elected School Boards.

Public school headmasters fight back

The popularity of the 1870 Act, especially in the cities, sparked a violent reaction from the Public Schools (now numbering some forty schools educating perhaps 0.5% of the country's boys) who were incensed that any form of education should be provided by the state through taxation. Having effectively hijacked the endowments of many of the better-placed ancient town grammar schools to create their own fee-charging boarding schools, the Public School headmasters now refused to cooperate in any way with government-led educational policy. In 1870 some twenty of these Heads came together and formed the Head Masters' Conference to protect themselves from any attempt by Parliament to reclaim those ancient endowments they had earlier appropriated for their own use and redirect them (in the spirit for which they had originally had been given) to establish a system of teacher training and a national curriculum that would have applied to all schools. The influence of these men on parliamentarians (virtually all of whose sons attended their schools) was such that they got away with this, and so consequently the 1870 Act failed to make any provision for teacher training, curriculum direction, or for any state-funded secondary education.

The scorn of those men who represented the interests of the successful Victorians tells as much about England's difficulty in defining education as a public good, rather than simply a private gain. This is best exemplified by one such Public School headmaster who asked "Why should I maintain my neighbour's illegitimate child? I mean by illegitimate every child brought into the world who demands more than his parents can give him… the school boards are promising to be an excellent example of public robbery!"

Once the best-placed of the old grammar schools had become boarding Public Schools, only 101 grammar schools remained in the entire country able to provide education up to university level, and of these only half sent more than one student a year to university. Consequently by 1900 over 90% of the undergraduates at Oxford and Cambridge came from fee-paying Public Schools, whereas a hundred years before almost all had come from the old, free grammar schools.

The success of School Boards – and their eventual demise

It was amongst the growing industrial cities that enthusiasm for the Board Schools was greatest. By the 1890s some two and a half thousand School Boards (made up of some thirty thousand volunteers from the community acting as trustees) had been established educating nearly half of the country's children. For the ordinary people of England the Board Schools were almost too good to be true. If pupils wanted to remain beyond the age of fourteen, the schools enthusiastically added more subjects – foreign languages, science, technology and bookkeeping. Because education was largely a local affair, the ability of the Board Schools to raise money for such courses was not resented by local ratepayers. Some Board Schools went on to provide 'higher-grade' classes for youngsters between fourteen and eighteen who could be trained to become student teachers. By the end of the century these Schools were offering the ordinary children of England the broader education which the Public Schools denied their own pupils. It seemed that at last the working classes now had a real chance to reclaim the all-through school dreamt of by Milton 250 years before.

But it was not to be. As the nineteenth century drew to a close institutional jealousies drowned any serious consideration of what was developmentally and intellectually needed for the totality of the nations' children. The grammar schools had become increasingly envious of the higher-grade elementary schools; the technical and mechanical institutes looked on with horror when technical education was taught by ill-qualified elementary teachers; the Churches were jealous of the apparent wealth of the Board Schools, and the Public Schools were incensed at the popularity of what they saw as mere utilitarian secondary education.

Parliamentarians recognised that an administrative nightmare might sap the energy needed to control what was fast becoming the world's greatest ever empire for Britain's overseas trade already exceeded the combined exports of France, Germany, the United States and Italy. The British Navy so 'ruled the waves' that its global empire could be administered by a tiny cadre of former Public Schoolboys all of whom knew each other, while six of their former headmasters went on to become Archbishops of Canterbury and so out-ranked even the Prime Minister. Behind such glamour so ill-educated were the ordinary English that industry was forced into recruiting bookkeepers and accountants from Germany, while so frustrated were many by the social constraints of the time that 100,000 men and women emigrated every year. Education was all too obviously failing to make English society self-sustaining.

RESEARCH in 2002 shows how a variety of pre-dispositions have been shaped by social and environmental factors over vast aeons of time, and how these develop into genetically transmitted "preferred ways of doing things" still shape our everyday decisions. This research drew upon a range of studies to identify four "drivers" of innate human behaviour – the drive to acquire, to bond, to learn and to defend. If these instinctive, innate pre-dispositions are not to pull the individual (and by implication society at large) apart, a consistent value system, socially constructed, is essential.

This research was stimulated by the need to understand how an overdose of neoclassical economics with its faith in unrestricted markets, had backfired in Russia in the late 1990s. The same explanation could be given for English society in the 1890s … it was excessively dominated by acquisition, and society itself was being fragmented.

Part five

Public Good or Private Gain?

The confusion of social and moral purpose, together with the logistical difficulty of administering 15,000 separate church schools and 2,500 separate School Boards, resulted in the Education Act of 1902. Debate ranged between two alternatives; either, strengthen the autonomy of the School Boards and devolve power to local communities to develop all-through schools or, impose a national structure administered directly by Parliament that would limit elementary education to the age of fourteen, and then develop grammar schools for a proportion of the population. MPs representing urban constituencies generally supported the all-through Board School, while rural constituencies favoured the split at fourteen.

The Public School lobby, with the support of the Cabinet (all of whom had been educated at such schools and none of whom sent their own children to elementary schools) favoured the limitation of elementary education at fourteen, with some selective grammar schools for the minority who would benefit from a classical curriculum. The debate was vehement; Herbert Asquith, later to be a Liberal Prime Minister, warned that if the School Boards were destroyed "you will put an end to the existence of the best, most fruitful and most beneficial educational agencies that ever existed in this country".

The abolition of School Boards

But that is exactly what happened – Parliament strengthened its control at the cost of dismissing as irrelevant the 30,000 locally elected school board members who Asquith had so much applauded. Elementary education was limited to pupils below the age of fourteen, School Boards were abolished, and England was left with a tiny rump of grammar schools out of which to create a national system of secondary education. The behind-the-scenes influence of the Public Schools headmasters ensured that grammar school pupils followed a strictly classical curriculum, wore school uniforms to distinguish themselves from their less academic neighbours, and played rugby rather than soccer. Here were the foundations for a twentieth century tripartite society; the Public Schools free to provide the leaders, state grammar schools the administrators, leaving the great mass of the population to pass effortlessly into employment.

The impact of John Dewey and Frederick Winslow Taylor

As industry became more mechanised there were fewer opportunities for adolescents to become apprentices and put their energies into learning new skills. Here two Americans with diametrically opposed understandings of human nature started to influence educational policy in England. Frederic Winslow Taylor's pioneering *Principles of Scientific Management* argued forcefully that modern factories needed well-drilled, rule-abiding operatives rather than thinking, intelligent craftsmen. However, John Dewey, the philosopher, came to a different conclusion from his study of Darwin – because humans had evolved to be thoughtful, creative problem solvers, any way of life that didn't activate such behaviours would eventually undermine that society.

The question in 1902 was as stark as it is today: should education be about doing as you are told, or learning to think for yourself? While Taylor was highly influential with industrialists, Dewey was largely responsible for the social purpose of the American high school. Paradoxically some educationalists both in England and America began to see the

role of the school in Taylor's terms, sorting people efficiently into the various positions that needed to be filled in the stratified occupational structures so resulting, years later, in both countries' infatuation with standardised tests.

RESEARCH in 1988 confirmed Dewey's belief in apprenticeship, and learning from experience by explaining: "Learning is not something that requires time-out from productive activity; learning is at the very heart of productive activity".

Adolescence as a disease

G.S. Hall (1904), later to be known in America as the Father of Experiential Psychology, was horrified as he toured factories and found them littered with exhausted and totally unfulfilled adolescents whose spirit of inquisitiveness had been throttled at the very moment when it craved self-expression. Lacking any understanding that adolescence was a product of evolution, or any appreciation of the ancient importance of 'initiation' into adulthood, Hall simplistically concluded that adolescence was akin to a disease that should be prevented by extending the years children spent in school. An Englishman who saw this very differently was Baden Powell, who caught the public's imagination (1907) by establishing the Boy Scouts and later the Girl Guides, so thrilling otherwise bored youngsters from the cities with learning how to survive in the wild in ways that would have seemed second nature to their rural grandparents.

RESEARCH by Edward Thorndike (1901) on the "Transferability of Skills" became important in showing conclusively that the apparent success of public schoolboys in adult life was not so much a result of having studied the classics, as it was to the degree of similarity between their experience of the rough and tumble of a boarding school and its playing fields, and the survival skills needed as a lonely administrator in some African colony, a duty officer of the watch, or a businessman in a distant colony. Transferability was the result of what Thorndike called "associations", which was why the diverse experience of apprentices was generally preferable to classroom-based instruction.

All of which steadily persuaded English educators of the significance of extra-curricular activities. Several Public Schools, responding to Britain's poor performance in the Boer War, decided to introduce military drill and burnished brass into their curriculum, so inadvertently preparing England for war. At the same time the limitations of elementary schools simply teaching youngsters to read without questioning what they read, enabled the newspapers to portray the arms race of 1913-14 with all the attraction of a game of monopoly, right up to the shocking point when, over a 52-month period, educated soldiers of the three most civilised countries in the world, fought themselves to a bloody standstill. Disillusioned by war, and dismayed that this had brought no improvement to the life of ordinary people, English politics in the 1920s started to shift to the left.

Two theories with catastrophic consequences...

Two theories about human intellectual capabilities, each of which contained an element of truth but when promoted as the ultimate explanation were to do immense damage to English education, began circulating in the 1920s. John B. Watson, an early enthusiast for Scientific Management, claimed that the brain was simply a 'blank slate' with no inherited preferred ways of doing things. Children's minds to Behaviourists like Watson were simply putty waiting to be shaped by teachers, and so quality instruction came to be seen as infinitely more important than thinking for oneself. The Behaviourists placed excessive dependence on the classroom as a closed environment where what was taught (input) and what was learnt (output) could be precisely quantified.

Cyril Burt, an English psychologist, built up a totally different explanation. Through the study of identical twins in the 1930s he claimed that inheritance accounted for some 80% of intelligence, so concluding that the social divisions of mid-twentieth century England were a natural result of evolutionary processes. Consequently Burt recommended that funding for education should be allocated on the basis of intelligence tests to those who would yield the highest gain – i.e. to the brighter pupils.

As educationalists speculated on the relative value of these theories, the politicians struggled with a sluggish economy. The children of the masses continued to go to free day schools until the age of thirteen, while the children of the privileged went to expensive preparatory schools until the age of thirteen and a half, and on to ever more expensive Public Schools until the age of eighteen. As late as 1938 82% of English fourteen-year-olds were already in employment, with only 18% continuing into some form of secondary or tertiary education.

Part six

A National System Administered Locally

The growth of the Labour Party in the 1930s, with its search for greater social equality, ensured a commitment from the wartime coalition government of 1940-45 to create a fully national system of secondary education. The English experience of war had been tough but not so tough as to

challenge them to rethink the whole schooling system, or – equally importantly – the whole nature of civil society. They entered the post-war years on a policy of reconstruction rather than seriously questioning increasingly moribund structures… such as the delay until 1965 of any serious questioning of the tripartite system of secondary education, and then never doing that effectively so that the tripartite system still survives (2013) in some 10% of the country.

The tripartite system

Education Minister R.A. Butler attempted as best he could to balance the Behaviourist's belief in the malleability of the brain, with the claim that intelligence was determined by genetic factors. Butler largely accepted Cyril Burt's conclusions that the divisions in society mainly reflected genetic differences in intellectual ability, rather than social/cultural influences. Psychometricians made ever more confident claims that they could develop accurate tests for a unified General Intelligence which could, at the age of eleven, define an individual's intellectual potential. Butler, himself very much an establishment figure, was constrained by Churchill's instructions not to do anything that would undermine the position of the Public Schools, while his Permanent Secretary, a former brilliant classicist, was convinced that it was his Minister's duty to provide for the tripartite separation of secondary schools as reflecting Plato's understanding of human capabilities. For technical advice Butler turned to the Headmaster of Harrow, Sir Cyril Norwood, to advise on how to structure forms of secondary schooling appropriate to different levels of general intelligence.

Norwood and the civil servants concluded that individuals had enough capacities and interests in common to justify separating early adolescents into three groups. The first "who can grasp an argument or follow a piece of reasoning … and see the relatedness of things in development, in structure or in a coherent body of knowledge". (In other words, people like themselves). The second were those "whose interests and abilities lie markedly in the field of applied science or applied art" and who, with dismissive echoes of Dr. Arnold a hundred years before, "prefer to follow a technical education". The third "were those who "deal more easily with concrete things than they did with ideas … are interested only in the moment and maybe incapable of a long series of connected steps". A conventional classical grammar school was needed by the first group, and then a form of technical education (which they did not really understand) for the second group. For the third group – the bulk of the population – they recommended an essentially practical, work-based education that would fit them for employment within a stratified society. Following the advice of Burt and the psychometricians, this was to be achieved by the administration of intelligence and comprehension tests at the age of eleven.

The creation of local education authorities

Here, it seemed, was a national system of schooling that was to be administered by locally-elected education authorities, not dissimilar to the earlier board school arrangements. From now on all youngsters would be in school until the age of fifteen and would transfer from small, community based primary schools at the age of eleven to much larger, self-contained secondary schools whose teachers knew as little about what happened in the primary classrooms as did primary teachers know about what happened in secondary schools. They still don't. All too often the primary schools inherited the dismissive attitudes associated with their charitable predecessors, while secondary schooling assumed the more favourable status associated with the old grammar schools and, to a lesser extent, the Public Schools.

Post-war England was still a "make and mend" society; not only was money short, so were materials. Boys still learnt about how to repair boots and change washers on a tap from their fathers, and girls still learnt from their mothers about home economics and childcare. Children were better clothed, were heavier, taller, reached puberty earlier; they read a lot, played endless board and card games, ran endless errands, listened to the radio for few had television sets. To implement a new education system England voted not for Churchill and Butler, but for a Labour government with the diminutive and fiery Ellen Wilkinson, a former Communist, as Minister of Education. Wilkinson wanted to do far more than just increase literacy. As a hardened social campaigner (she had led the Jarrow March in 1936) she and the teachers wanted to use new ideas to expand a child's curiosity and imagination as a prelude to creating a more just and responsible society.

Most parents in the late 1940s had themselves left school at thirteen or fourteen, and had little idea as to what secondary education might involve for their own children. "Always remember", a wonderful little book entitled *The Child at School* (Sir John Newsam) said, "children are children first; they are only school children second. Progressive teaching, the book explained, meant getting children involved in making things, moving about, acting, singing, painting, hammering and sewing. The new methods, attractive as they might be, are unfamiliar to most teachers, and they are inherently more difficult, and require greater energy, imagination, skill, judgment and perception in the teachers".

The book then went on to make two vital points – the roles of the parents and the home as equal partners with the school were critical. "Behaviour is determined much more

by standards set by the home than by the school; children are influenced much more by the conduct of their parents then they are by their teachers". The Finns understand this intuitively, and have been at pains to implement this in their national strategies by delaying the start of classroom instruction until the age of seven and by providing enormous support for families and communities for play-based learning.

> *In England however, the ineffective translation of such ideas resulted in the tragedy of educational policy in the 1960s. Inexperienced teachers required to do something for which they had not been qualified, or to which they were not committed, compounded by uncertain parental attitudes, destroyed such great expectations and bequeathed to this very day in the House of Commons a cynicism that any policy based more on how children learn, than on the rigour of how they are taught, is simply dangerously 'progressive'.*

An unequal education for an unequal society

For all the idealism of the educationalists, England remained a jealous and divided nation. The country didn't really believe in equality – what Englishmen in the 1960s were increasingly looking for were equal opportunities to be unequal. The struggle to ensure that a child pass the Eleven Plus examination was, for many, a struggle either to remain in, or to aspire to, the middle classes.

This is still obvious when looking at the shape and design of schools built at that date. Post-war governments allocated one-third more for the building of new grammar schools than they did for (secondary) modern schools. Furthermore, as the assumption was that more middle-class children would pass the exam, new grammar schools were built in the wealthy residential districts, while the modern schools were built on council estates or near the factories. Twenty years later (1965) four-fifths of the modern school buildings were deemed inadequate, a third had no laboratory, half had no gymnasium and a quarter no library. Depending on the part of the country you lived in a child might have a one-in-two chance of a grammar school place, or only a one-in-six chance. Even more serious was the fact that it is now known that those tests had a 14% inaccuracy factor – one child in seven was misplaced, mainly as shown by the numbers of pupils it was later found necessary to reallocate to another kind of school.

The impact of the Eleven Plus Exam was frequently devastating. One headmaster recalled how a father told him about his son;

> *We always thought, his mother and I, that he was a bright laddie. I have a shed and in my spare time I do a lot of carpentry. He used to come in and help me, and then he started making things for himself. He made a bookcase, and he bought a blueprint and rigged up a wireless set for himself. Pretty good reception, too. We bought encyclopaedias from a traveller that came to the house and we encouraged him to read them; and so he did. He used to spend a lot of time in winter evenings reading about science.*
>
> The father stopped, and then after a pause added almost apologetically,
>
> *Oh well. Maybe we built up our hopes too high".*
>
> He smiled a slight and sad smile.
>
> *You always think your ain bairns are pretty good. Better than they are really, I suppose.*

Parents who had watched the miracle of birth and growth were briefly informed on the basis of a single number that the miracle was over. Their child was just ordinary, below average in IQ. The magic had fled, and the wonder gone out of life. To understand England today is to remember that very many of the grandparents of today's so-called difficult pupils were just like that young boy; they had been regarded by their parents, and by themselves, as has-beens … even before they had started. It wasn't their fault; it was the result of a system that was flawed from the start.

Part seven

Muddle & Confusion

"A system that was flawed from the start" helps to explain how pupils at the time performed to the level teachers expected of them, and resulted in a generation or so later as significant numbers of former top-stream secondary modern pupils began gaining Open University degrees. Conversely, many bottom-stream grammar school pupils, complacent that they had earlier been told they were amongst the gifted, were singularly unsuccessful in subsequent careers. This encouraged many to advocate for what was seen as the fairer opportunity for everybody to be provided in comprehensive schools.

After twenty years the faults of the 1944 Education Act were too glaring to be ignored. It wasn't that many of the aims hadn't been eminently worthy; the formation of moral and ethical standards, intelligent use of leisure, and the social skills needed to support family and community were all highly desirable. It was simply that the opportunity to develop those skills was mightily constrained by the kind of school a child attended. If it was the grammar school, then the academic curriculum severely limited the development of social skills, while if it was the (secondary) modern school the near impossibility of pursuing academic study to any depth deprived most youngsters of the chance of progressing much beyond the life style of their fathers.

Too little, too late

The tripartite system began unravelling in the 1960s and politicians, as uncertain as the rest of the population as to what was needed, indulged in a monumental piece of buck-passing. They simply issued a Circular in 1965 to all local Education Authorities stating that they were "aware that the complete elimination of selection and separatism in secondary education will take time to achieve. They do not seek to impose destructive or precipitous change on existing schools; they recognise that the evolution of separate schools into a comprehensive system must be a constructive process carried through carefully by LEAs in consultation with all those concerned".

But it was all too late, at least three-quarters of a century too late. And the indecisiveness and the compromises of the politician then still have devastating implications upon educational thought and practice in the twenty-first century.

The measured tone of the Circular might have sounded statesman-like but, as politicians must surely have realised, that while John Dewey had persuaded the Americans of the interdependence of high schools with the social aspirations of their communities, England lacked any such sense of a common social identity. For more than a hundred years, education has been used to reinforce social divisions. Herein lies the core of so many of England's contemporary problems – without a sense of civil society, of true responsibility one for the other, it is impossible to form a sustainable vision for the country's future.

How the Finns differ – and why

By contrast, the Finns have a strong sense of civil society. Having been heavily penalised by the Russians post-war for having attempted to regain their sovereignty in 1942, they had to agree that every 17 year-old Finn would go to Russia as slave labour for three years. The traumatised Finnish society, in contrast to the English emphasis on school reform, went for a complete transformation of school and society that so rebuilt their education system that by the age of 16 every Finn would have received such a good early education that they had been effectively 'weaned' of their dependence on a teacher. Fundamental to this thinking was the need to provide a good school for absolutely every child working on the principle of genuine equality that meant preferential funding for those children coming from the least advantaged backgrounds. In 1972 the Finnish government created the Peruskoula, an all-through single school from the age of 7 to 16, and supported this with an exceptional teacher education programme that in subsequent years has been largely responsible for the extraordinary speed with which Finnish education has 'shot to the top' of international comparisons.

It could have well been similar in England if Parliament back in 1902 had voted to extend the role of the School Boards which had achieved so much by drawing on the commitment of local people to craft rich learning opportunities for all their young people. Instead government destroyed that community enthusiasm and, by reducing education to a sub-section of local government, effectively took the school out of its natural community. It could have been different again had not that Act limited elementary education to below the age of fourteen for, when the grand aims of 1944 came to be implemented, few parents of children in modern schools had any personal experience of what secondary education might achieve. Then, and most important of all, it would have been even more different had the Acts of 1870, 1902 and 1944 not placed the Public Schools, and the education of the moneyed classes, as being above (and totally separate to) the education of the rest of the country.

Woolly thinking leads to unsustainable compromise

The confused people in the 1960s found it extraordinarily difficult to envisage a system of education that would provide genuine flexible opportunities for all children. Comprehensive schools were conceived by idealists but were delivered amidst bitter controversy. Fearful of theories proposed by intellectuals, many English longed to proceed cautiously for while they could accept that to retain grammar schools was to assign three-quarters of the population to modern schools, they sought to compromise. But compromise was impossible. If comprehensive schools were to exist in the same locality as grammar schools, they would inevitably lose out as, given English social pretentions, the brighter children would opt for the grammar school, so the comprehensives would become, in practice, little more than modern schools. England in the 1970s faced the same dilemma that Milton had failed to resolve in the 1640s; for comprehensives to work, the grammar schools had to be abolished.

How Labour's plan went horribly awry

Initially both Labour and Conservatives supported the comprehensive principle. Edward Boyle the Conservative minister (an old Etonian himself) acknowledged that England would never realise its potential until all children, regardless of class, received an equal education. In that spirit many grammar schools were closed in the late '60s but, as the difficulties of reorganisation grew greater, the pace slackened and political consensus broke down. Winning the 1974 election, Labour became determined that nothing should get in the way of achieving a full comprehensive system. Not yet strong enough to take on the Public Schools, Labour saw in the direct grant grammar school (many of which were old grammar

schools that had not become Public Schools in the nineteenth century, and who had accepted government grants in the 1920s and '30s to take in youngsters on government scholarships, thereby reducing the pressure on government to build more "provided" grammar schools – schools such as Manchester Grammar School, Leeds, Bristol, Bradford etc.), some 170 highly-regarded independent (but in effect state subsidised) schools which, if converted to comprehensives would clear out the old grammar school system.

Gambling on such schools' financial vulnerability the Labour government issued an ultimatum – become state-maintained comprehensives, or your direct grant will be removed. The political ploy backfired badly, for just over one hundred of these schools opted for independence believing that parents were now sufficiently dismayed at the performance of comprehensive schools to pay their fees. Rather than hastening the end of independent schools this unexpectedly increased their numbers, and so posed an ever greater challenge to the comprehensive system.

Part eight

Failure of Knowledge Transfer

By the late 1970s English education seemed to have run out of steam. Educationalists were so preoccupied with grass-root squabbles that they seemed incapable of looking into the future, while the anti-industrial culture resulted in a lack of enterprise at both boardroom and shop floor level. Elected Prime Minister in 1979, Margaret Thatcher resolved to rid herself of the old manufacturing economy and, in a series of leaps, move into a bright new England that would become ever more adept at selling things. Conservatives proceeded to represent the problems of schools as a kind of condensation of all the worst effects of what they described as the sad post-war history. Schools, they argued, revealed the true nature of the British disease: bureaucracy stifled enterprise; unaccountable professional power fuelled an insatiable demand for increased funding and, by driving down standards, created a gulf between parents and businesses, and what schools appeared to provide.

Education was set to become the arena in which Thatcher sought to demonstrate what she saw as the reviving power of Conservatism. She appeared to be immediately successful. But schools don't simply exist to serve society – they are part of that society. Conservatives were slow to recognise that not every youngster is temperamentally suited to selling, analysing data, or simply being a link in an efficient production network where you never see the end product, or meet a customer.

Which is why the switch to a service economy has radically changed our assumptions about ourselves, for it quickly stripped out of city, town and country opportunities for adolescents to learn through doing something, and consequently apprenticeships had all but disappeared. In terms of our inherited natures, this is having the most disturbing consequences, for the satisfaction in a job well done has been replaced by the motivation to earn still more money, and that is undermining many of the values that once made England so successful.

The time lag between scientific research and industrial innovation

A prime reason for Britain's sluggish economic performance was the slowness of "knowledge transfer" between scientific research and industrial innovation. Knowledge transfer between educational theory and practice was even slower. Policies in the 1980s, especially the much hyped *Great Education Reform Bill* (GERBIL), were shaped virtually exclusively by political theories concerning free-market choice coloured by the antipathy of national politicians towards local government, and a deep distrust of teachers. Not only was no attempt made to interpret recent bio-medical and cognitive research (based on functional MRI scans) on how the brain works, and how humans consequently learn, such research was often dismissed as politically motivated. Which was crazy, for much of the tension between politicians and teachers centre upon the tricky distinction between learning and teaching, for while good teaching most obviously stimulates learning, the wrong kind of teaching or the wrong set of circumstances, all too easily destroys a youngster's confidence in thinking things out for itself.

> *A SYNTHESIS OF RESEARCH already available in the late 1980s, showed that humans survive because their superior brains have evolved to assimilate every new fact or experience into a dynamic web of understanding that has been shaped by that individual's earlier experience, so making the brain a "complex adaptive system". Consequently no two brains ever understand a given situation in the same way – which makes comparing the effects of a teacher to a line-manager at a factory totally ludicrous. This led to a key report to explain; "The method people naturally employ to acquire knowledge is largely unsupported by traditional classroom practice. The human mind is better equipped to gather information about the world by operating within it, than by reading about it, hearing lectures on it, or studying abstract models of it. Nearly everyone would agree that experience is the best teacher, but what many fail to realise is that experience may well be the only teacher": Asked to put this into layman's language an eminent neurobiologist simply quoted Confucius "Tell me and I forget; show me and I remember;*

let me do, and I understand". Another quoted St. Augustine from the fourth century "I learnt most not from those who taught me, but those who talked with me".

FURTHER RESEARCH into the brain's 'adaptive' capability shows that because young children have to learn very quickly, they have evolved as "clone-like" learners up to the age of eleven or twelve, at which point the brain, we now know, has a built-in mechanism that begins to fracture that clone-like process, forcing the adolescent to learn how to value its own conclusions over what it is told … a powerful process that disturbs parents and teachers but is an essential process if each new generation is not to mirror its parents.

British craftsmen in the eighteenth century, by exploiting these innate, preferred-ways-of-performing, and encouraging their apprentices to become so good that they overtook their masters, understood this better than the politicians and bureaucrats who shaped the 1988 Education Act. Parliamentarians twenty years ago neither thought to question the appropriateness of the age of eleven for transfer to secondary school, nor did they seek to define the purpose of education in anything other than subject terms so forgetting that "all considerations of the curriculum should consider how best to use subjects for the purpose of education, rather than regarding education as the by-product of the efficient teaching of subjects".

The 1990s and the flawed national curriculum

Quality education in England has simply fallen between the cracks left between ill-fitting planks of a grossly over-specific curriculum. Far from its claim of being the best national curriculum that could ever be devised, it was so flawed and so unworkable that after much vicious fighting, and totally impossible demands placed upon teachers, the curriculum ended up much as it had been in 1988, with a government spokesman apologising in 1993 that "This was because the early architects of the whole system built in too much bureaucracy, and too much convolution".

Those battles radically reshaped the social landscape. Parents, having been told that they should hold the school responsible for the education of their children, became so set against teachers that the stuffing was knocked out of what good teaching, and good schools, were all about. Warning government of what would be lost if education failed to recognise the significance of those changes in brain structure which automatically shift the clone-like learning of the pre-pubescent child into the self-selective learning of the adolescent, then the opportunity to reallocate resources so as to 'front-load' the system, would be lost. Senior policy officials in 1996 said of this, "The system you are arguing for would require very good teachers. We are not convinced there will ever be enough good teachers. So instead we are going for a teacher-proof system of organising schools – that way we can get a uniform standard".

Why so many teachers leave the profession within three years

"A teacher-proof system" implies the very worst of Frederic Winslow Taylor's thinking on Scientific Management. Instead of staffing schools with "broadly educated" teachers each with sufficient knowledge and professional competence to be able to plan their own work, teachers have instead been given ever thicker rule books, and required to follow more tightly prescribed instructions. The net effect has been to limit a teacher's perception of the total role of education (rather like an over-dependence on a GPS system in a car would limit the driver's inquisitiveness as to what is going on around him). Teaching has been reduced to a job, rather than a craft or a vocation. As such, teaching quickly loses its interest, and many an active and intelligent teacher has got so frustrated by such political micro-management that some 40% of newly qualified teachers resign in the first three years. To maintain the 400,000 teachers needed in British schools it has become necessary to train 42,000 new teachers each year … for a working life, apparently, of less than ten years.

A regime of endless testing

New Labour's belief in "performability" meant that management by objectives would permeate every aspect of public life. Especially education. If results did not improve it meant that the system needed further refinement. There was to be nothing "soft" about the country's vision for education with government claiming, in 2001, "The work of the Department of Education and Employment fits with the new economic imperative of supply-side investment for national prosperity". To this end the regime of endless testing was bent to demonstrate to an ever more anxious public that it really was safe to assume that schools could do it all.

Here government shot itself in the foot. "If you are forever doing formal tests and waiting for somebody to give you marks, then you never learn the skill for assessing yourself and measuring your own knowledge and ability against genuine, outside challenges. The constant neurotic focus on grades stops teachers from encouraging connections and flexibility".

Consequently, by so misunderstanding the nature of human learning England has forgotten that for children to grow up properly there has to be much more to education than simply sitting in the classroom. But, as the twenty-first century got underway, there were ever fewer safe places for children to sit in, ever fewer opportunities for them to learn from experience

and – in a country dominated by adults' desire to earn still more money – precious few opportunities to listen carefully to what an older person might have to say. British children came bottom of The UNICEF *Well-Being Report* (2007) because, under continuous pressure to improve the economy, home and community have been weakened as government has expanded the role of the school, effectively creating a whole new generation of overschooled but undereducated young people.

Part nine

A Clash of Ideologies

For twenty or more years governments, first Conservative and then Labour, have had an infatuation with the private sector as both sponsor and instigator of public sector reforms, based whenever possible on free market principles and the right to choice. In education this had started in 1988 with the establishment of City Technology Colleges as a roundabout way of undermining the control of local education authorities – a curious strategy, given that those authorities had been set up by Parliament in the first place as its local partner in administering a national system of education on the ground.

Rather than clarifying the relative responsibilities of local and national government, Parliament has persistently tinkered with the symptoms of dysfunction and, in so doing, has undermined public confidence in the role of local government, making it increasingly difficult to find able and responsible citizens ready to stand for local office. This failure to recognise the significance of local government seems to be a peculiarly English attitude still rooted in the social struggles of the 19th century, and now exacerbated by the growth of a self-centred and materialist society where little thought is given to standing for public office.

What we could learn from British Columbia

By contrast, British Columbia on the Pacific Coast of Western Canada still retains the School Board system emcompassed within the British North America Act of 1872 which created a federal relationship between the separate provinces and Ottawa. British Columbia retains 60 separately elected School Board Districts (as existed in England before 1902) working in partnership with the BC Minister of Education. George Abbott, former Education Minister says:

> *In BC, neither central nor local governments hold any monopoly on wisdom and common sense. Both levels can add value to the construction and delivery of public policy and programs. Ideally, the inevitable tension between central and local levels will be creative and constructive. To attract capable local leadership, Boards will need to have sufficient authority to make important decisions including, hopefully infrequently, poor decisions. Striking the right balance between local and central powers is critical. While not perfect, BC at least approximates an appropriate balance.*
>
> *In BC the provincial government can provide broad leadership through initiatives like the BC Education Plan. Using a combination of financial incentives, moral persuasion and regulation, the Province can advance early childhood or experiential learning initiatives. Local boards are expected to embrace such initiatives, but to also adapt them to local circumstances. In such cases, the Province is often catching up to, rather than pulling forward, local School Districts. Many School Districts have done many things well. Central government's role is to make best practices become general practices.*
>
> *Is the formula perfect? No but it's a pretty good balance from a democratic perspective. Just as local and central governments can learn from one another, so too can the public and private school sectors learn and benefit from their respective experiences."*

The centralisation of the British system

Meanwhile, the English were reminded by Graham Clayton at the end of April 2012 of the "alarming democratic void emerging at the heart of our school-system" due to Michael Gove's determination finally to destroy any vestige of local democratic control of education (Local Education Authorities), replacing it with direct control through contract law by himself, rather than statute law by Parliament. Schools that had earlier been maintained by a local authority were invited to make individual contracts with the Secretary of State which would offer them enhanced levels of funding in exchange for central Westminster control. This really is the heart of the issue, and the contention of all those who believe in the democratic control of education. At the same time any individuals were invited to establish 'Free Schools' that would again draw their funding and their legitimacy from a contract with the Secretary of State.

When Parliament wrested control from the School Boards in 1902 responsibility for education was initially vested in large county councils to administer, as if it were a commodity like sewers, roads or social housing. In contrast the Public Schools, who only 32 years before had successfully defied Parliament's attempt to incorporate them into a national system of education, had retained their belief in the importance of the individual child. Public schools are essentially of two kinds. Eton has always prided itself both on the breadth of its entry,

the development of the all-round person, and its attention to intellectual rigour. Winchester has placed its pride in academic rigour. Eton is to Winchester what a good comprehensive school is to a good grammar school.

The idealism with which comprehensives were introduced in the 1970s mirrored the Etonian belief in the education of the whole person while attempting to combine a commitment to the individual needs of the child with a determination to improve the quality of life of their community. It was just what England needed but, in a period of economic stagnation and enormous inequalities of income across different parts of the country, the introduction of comprehensives became a struggle between two abstractions – education for the good of the individual child, and the testing of a theoretical model of schools that, many urged, would improve the life of the community.

When the Labour Party in 1975 abolished the Direct Grant, their strategy backfired badly, as more than half of these former grammar schools opted to become independent, deepening the rift still further by increasing the number of independent schools by a third. When the Conservatives were returned to office in 1979 they came up with a half-baked educational strategy: they set up 30,000 scholarships to enable children who earlier might have gone to the local Direct Grant grammar school to go to any independent school of their choice. The inference was very clear; government defined independent schools as doing things better than their own state schools. Why? It has often been claimed that it was because the teaching was better, yet the teachers in private schools have been trained in the same way as those in state schools. Others said it was because of smaller classes, while many observed that state schools were becoming so increasingly saddled with picking up the bits of a changing/collapsing society that they were being stretched too far. Labour-controlled authorities wanted to expand the role of the school to correct what they saw as social inequalities, while Conservatives wanted to pressurise schools to improve educational standards, untainted by social engineering.

We've been fighting the wrong battle for 15 years

Instead of holding a reasoned debate about how learning takes place, about how children develop, and the implications of recent research on how humans learn, the last 15 years have seen a battle between the wrong adversaries – local and central government – and about the wrong issue – the control of the schools rather than the provision of appropriate learning opportunities.

In retrospect it seems that both Labour and Conservatives had become ever more ideologically confused. Pasi Sahlberg, (the former Chief Inspector of schools in Finland) in his book Finnish Lessons, which has attracted enormous world-wide attention in the past few years, holds up a mirror to the problems currently being experienced in England. He explains most carefully the need for a unified base on which to rebuild a responsible and effective education system. Finnish schools, curriculum and teaching methods are based on scientific evidence on how children learn, high confidence in teachers and the continual encouragement for both teachers and students to try new techniques, rejecting the current English approach that argues that competition between schools, teachers and students through rigorous and continual assessment is the most productive way of raising quality.

Sahlberg quotes the Canadian Michael Fullan (2011):

> *In the rush to move forward leaders, especially from countries that have not been progressing, tend to choose the 'wrong drivers' of change….accountability, not professionalism; individual teacher quality, not collegiality; technology, not pedagogy, and fragmented strategies rather than a system approach…*
>
> *There is no way that those ambitious and admirable nationwide goals will be met with strategies (now) being used. No successful system has ever led with these drivers. They cannot generate on a large scale the kind of intrinsic motivational energy that will be required to transform these massive systems. The US and Australian aspirations sound great as goals (separately he said the same thing about the UK) but crumble from a strategy or driver perspective.*

The Finnish system trusts educational professionals so highly that they have been granted professional autonomy, while in England inappropriate political muddling of education undermines the public's confidence in Parliament, and teachers become increasingly restricted in how they are allowed to perform their jobs.

"All we want," says the voice of reason struggling through all the sound bites, "is a good school locally for everyone." The experience of recent years shows that this will only happen if Westminster politicians connect with the everyday, honest aspirations of local people… for it is in Town Halls rather than in the House of Commons that the rubber hits the road. England needs able Councillors as much as it needs able Members of Parliament.

Democracy involves much more than making one carefully considered vote every five years; it depends upon being thoughtful and respectful of other people's ideas both in public and in private, for our real authority comes from our personal example of living together within an interdependent community.

Part ten

Today's parting of the ways

Shaping the future should inevitably start with the question "What kind of Education, for what kind of World?" A massive question, the micro and the macro all rolled into one – the nursery and its toys, the world economy and its myriad technologies. It is about private integrity and public responsibility, as well as economic competitiveness and social justice. The issues cannot be separated for what is done to children in one generation inevitably comes back to haunt society later: "The child is father of the man", wrote Wordsworth. It is a debate in which students and potential prime ministers, parents, academics and members of the community necessarily enter as equals, properly exercising their democratic responsibilities.

Over the last fifty or so years England has become a land of economic opportunity where people are determined to do well for themselves but with relatively little concern for the common good. In schools business studies has tended to replace history, enterprise weeks replace community service projects, and pressure to improve league table positions replaces any philosophic questioning of the purpose of education. All of which has come at a considerable social cost; England is now the fifth richest country in the world, second only to the United States in the difference between the richest and the poorest, yet our young people are some of the most unhappy in the developed world and a quarter of our adults take tranquilisers. Is this really the world we would like to continue to build up?

Why we need total transformation, not mere reform

For a quarter of a century politicians have attempted to micromanage the nation's way of life, the design of its schools, and the nature of the diet (curriculum) that children receive. In this they have been encouraged by the Global Education Reform Movement (GERM), largely sponsored and hyped up by the larger Western economies as represented in OECD. An increasing number of governments have come to see education as an institutional, tightly-defined and self-contained process; a national system administered centrally ignoring the civil society as the natural unit of change. The harder the English politicians push the Academy and Free Schools agenda, the greater is the fear that the whole of society becomes segmented. The contrast between the supporter of GERM and those who believe that education has to be reframed on the basis of the 'grain of the brain' is terrifying, two storms arising from totally different perceptions of the problem and colliding in ways which make dialogue between the two very difficult. Total transformation is needed to reflect what we now know about how the child's brain develops and learns.

The English have undoubtedly been brought up with a jolt, in fact with several jolts. And so has Parliament. The single-minded drive to produce a society that works like clockwork seems to have undermined our innate individual capacity to be inquisitive and flexible. Unless teachers are very skilled, pupils under such circumstances end up remembering what they are told, but find it very difficult to apply this in new situations. England has now to recover, and reverse, what has become an overschooled but undereducated society, understanding that education is as much for the good of society as it is of value to the individual.

The contrast with the Finnish attitude towards education is stark. In a recent address to King's College, London Pasi Sahlberg noted that of the Finnish public institutions, the education system was trusted by a staggering 89% of the populous, surpassed only by the Police Force with 90% and above both the health care and legal system. So high is the status of Finnish teachers (though their salaries are not disproportionately high) that only one in ten of those who apply for training are actually accepted. In a society that emphasises transformation based on empirical evidence, the schooling young Finns receive is founded on collaboration, creativity, equity and trust-based responsibility. This implicit trust in both the system and the educational professionals who work within it has afforded Finnish teachers to become largely autonomous, with no Ofsted-style of external assessment, placing responsibility before accountability. "Finland is an example of a nation that lacks school inspection, standardised curriculum, high-stakes assessment, test-based accountability, and a race-to-the-top mentality with regard to educational change"(Sahlberg, *Finnish Lessons*).

Without first defining the kind of nation we would strive to create it is impossible to start thinking about the kind of education that would be required. The reality is that Finnish society retains its conviction in equity and responsibility without constant assessment and accountability. While the English have recently abolished all forms of local democratic control (the Local Education Authorities), in favour of highly centralised, political decision-making, Sahlberg highlights the advantages of those countries/jurisdictions that operate on federal principles. The Finnish population of 5.5million is comparable to 30 or so states in the US, to each of the provinces in Canada except Ontario, or to Scotland. Sahlberg argues that the smaller jurisdictions are "the most effective way to maintain effective school systems, providing, of course, these jurisdictions have the freedom to set their own educational policies, and conduct reforms as they think best" (page 8).

Sahlberg notes with satisfaction that none of three elements

advocated by GERM have been applied in Finland, especially the assumption that competition between schools, teachers and students is the most productive way of raising quality, and reiterating that a key factor in Finland's achievement has been "the high confidence in teachers and principals regarding curriculum, assessment, organisation of teaching.... and the encouragement of teachers and students to try new techniques."

Taking a holistic approach

However, to simply transfer practices from Finland to England would be to ignore the unique needs of the English people. Rather than continually reforming the education system that currently exists, England must transform the current model into a way of raising young people by which "mind, body and soul are jointly guided towards maturity" (Crowther Report, 1952) so that they will need, as adults, minimal micromanagement because "they simply know how to work things out for themselves." The country needs leaders who understand, and genuinely believe that "he who governs best, legislates least". Herein is the single most important task facing our government.

It is taking English politicians a very long time to realize that schools alone cannot provide young people with enough learning opportunities that could, once experienced, lead to the development of a range of skills necessary to create and live responsible lives. For too long policy-makers have forgotten that home and community are as integral to a balanced education, as are the schools and their curricula. It should be politically feasible to draw together four strands of current Coalition policy – Big Society, Regionalism, Local Financial Responsibility, and the structure of Education – to open up presently untapped opportunities to create a nation of responsible, thoughtful and enterprising people. A successful melding of currently disconnected Departmental policies will however require a better appreciation by all involved of the dynamics of human learning, of the motivators of behaviour, the origins of social capital and the functioning of civil society.

We need collaboration between homes, communities and schools

Such a joining-up of policy needs to happen urgently across the whole country. But it won't happen anywhere unless government, communities, and the private sector work in partnership. By pulling together all our resources in a spontaneous, voluntary covenant – homes, communities, schools and voluntary associations – the UK could transform the way society nurtures its young people. This would galvanize national life by releasing the personal creativity of millions of people to create and support a functional democracy both able to look after itself and make informed judgements over complex issues, and subsequently stick by the outcomes. It is social capital, not institutional arrangements, that bind people together in their daily lives, and which is so essential in the future.

We need to foster social capital

National survival depends more upon the development of the people's applied common sense (wits), and their ability to pull together within communities comprised of people with disparate skills and interests, than it does on abstract intellectual knowledge. While Britain prides itself on being a democracy it frequently forgets that such a fragile concept cannot flourish unless each new generation is well-nurtured in the affairs of the nation and of the mind, and appropriately inducted into the responsibilities of adulthood. Parliament serves the country best when it creates the conditions for people to put their personal creativity into action, for the good of the whole, rather than sectional interest. It would be too much to expect of any government to attempt to pilot this project nationally without first testing it out rigorously in some pilot projects, and this is what is needed if the creativity of ordinary people is to be released, and challenged.

The measure of the ultimate success of this transformation would be a national recognition by all that it is the community which has to be the unit of education, not – as is currently seen to be the case – the individual school. It will only be in those communities in which school, home and community are really truly connected that civil society will best operate, and where children will learn from the nursery the value of that interdependence. By progressively 'front-loading' the system (the reversal of the present upside-down system of funding), and fully involving the voluntary contribution of home and community (so reversing the inside-out part) this would result in young people being infinitely better educated, far more able to stand on their own two feet, and more responsible for their neighbours, at no more expense than at present.

To achieve this England must elect representatives with the courage and personal integrity to tell things as they really are, leaders who are able to balance the demands for economic well-being within the boundaries of social and ecological sustainability. Such representatives, putting loyalty to the people above party politics must, above all else, awaken in the English a vision that could draw together the disparate aspirations of our currently fragmenting society so that, like Rip Van Winkle, we would awaken from two centuries of muddled dreams to rediscover what it means to equip young people to perform *justly, skillfully and magnanimously.*

Appendix C

The Global Education Reform Movement: a note on education in other English-speaking countries

It was back in 1969 that I first visited a number of schools in North America from Boston, New York and Washington across to Winnipeg and Vancouver. As a young English teacher, I was amazed at the scope of what the schools were attempting to do, but, lacking a sufficient understanding of the social environment, did not really understand many of the things I saw. One school, recommended to me personally by Ernest Boyer (see below), made an enormous impact on me: Princeton High School. The High School's mission statement highlighted functional literacy as its ultimate aim, based on the mastery of four skills: the ability to think, communicate, collaborate and make decisions.

It was not until the early 1980s that I renewed my contact with America, much attracted by the report produced by the US Department of Education in 1983 – 'A Nation at Risk' – with its dramatic statement, "If a Foreign Power had done this, we would have defined it as an Act of War".

From my English experience, I struggled to make sense of all this. A first leader in *The Times* in 1981 should have given me the clue, for it argued that there were probably more people in England who would give of their best for reasons of idealism rather than financial gain, but surmised that the opposite had become the case in the US. I was struck by how Ernest Boyer, President of the influential Carnegie Foundation for the Advancement of Teaching, commented, "Schools can rise no higher than the expectations of the communities that surround them. To blame schools for the rising tide of mediocrity, is to confuse symptoms with disease." His words have haunted and inspired me ever since.

To understand something of education in the United States, the views of Diane Ravitch bring a valuable and pertinent perspective. Now a well-regarded academic, she had previously served as Assistant Secretary responsible for School Reform in George Bush's Republican administration. Despite having been at the heart of US education for some 15 years, Ravitch concluded in 2010 that,

> *"at the present time public education (in America) is in peril. Efforts to reform public education are, ironically, diminishing its quality and endangering its very survival. We must turn our attention to improving the schools, infusing them with the substance of genuine learning and reviving the conditions that make learning possible".*

Three years later, in 2013, she alerted readers to the critical need to protect public education from privatisation as crucial to sustaining democracy, to the extent that it is the "civil rights issue of our time". This is serious stuff. "Ms Ravitch…writes with enormous authority and common sense" wrote *The New York Times*, while another American commentator called her one of the "most important public intellectuals of our time".

The following is taken from a reflection I wrote having read her 2010 book, *The Death and Life of the Great American School System*,[37] and draws on her fierce 2013 commentary on the danger of privatisation to America's Public Schools, 'The Reign of Error'. [38] Whilst focusing on Ravitch's work, this piece takes in much significant and challenging thinking from the US over the past three decades as it tells of the journey to the present situation and, indeed, the likely destination for the English system if the current trajectory is maintained.

* * *

The publication of *The Death and Life of the Great American School System* might not immediately appeal to an English readership, but its subtitle "How testing and choice are undermining education" should certainly resonate with many this side of the Atlantic.

For the better part of the past 25 years I have crossed and re-crossed the Atlantic many times as I have studied the emerging research on human learning and the political initiatives to reform education being mounted in either country. I've written and lectured widely about this and got to know many of the people involved. Specifically for four years (1995-2000) I lived and worked in Washington DC leading a team of researchers in the biomedical and cognitive sciences seeking to establish "the grain of the brain". As the people Ravitch describes were developing their ideas in the States I was constantly cross-referencing these ideas with subsequent developments in the United Kingdom.

During this time I never ceased to be amazed at how those seeking to understand the operation of the brain seemed unable to make any impact whatsoever on those political think tanks that thought they, and they alone, could come up with solutions to underperforming education systems. I was never able to persuade those advising politicians that these problems had their origins in a misunderstanding about how children learned, and comparatively little to do with administrative issues of governance. So, in the course of studying *The Death and Life*… I found myself constantly reflecting on the current situation in England within which I am frequently engulfed. This has changed the nature of this review to become more a reflection on Ravitch's story, and the impact such policies have had in London.

37
Ravitch, D. (2010) *The Death and Life of the Great American School System*, New York: Basic Books.

38
Ravitch, D. (2013) Reign of Error: The hoax of the privatization movement and the danger to America's public schools, New York: Alfred Knopf.
System, New York: Basic Books.

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Diane Ravitch is a Professor at New York University and Senior Fellow at the Brookings Institute. She is an academic with middle-of-the-road democratic political leanings, so it was rather surprising that George Bush Snr appointed her as Assistant Secretary for Education under Lamar Alexander in 1991. She became progressively more involved in solutions advocated by the Republicans that centred on standard assessment procedures and advocating the principal of choice as the solution to apparently otherwise intractable educational problems. In her thinking, and that of those around her, anything emerging from the biomedical sciences about the grain of the brain appeared an irrelevance.

Ravitch has a scholarly, thoughtful and balanced approach – she writes with the assurance and authority comparable to a top English grammar school head teacher of years gone by. She goes back to the dream of using public education in 19th century America to create a nation out of immigrants of many nationalities. She writes of the honest attempts to deal with the issues in that damning report in 1983, 'A Nation at Risk' which, as it analysed America's declining academic performance since the early 1960s, commented "if a foreign power had done this to us we would have defined it as an act of war".

Ravitch speaks of powerful innovation in New York and San Diego that didn't quite turn out as expected; of George Bush's "No Child Left Behind" that finally shifted the focus away from a broad and balanced education to an ever-increasing emphasis on tests, choice and accountability, and she concludes with a chapter on what she calls "the Billionaire Boys' Club" – the extraordinary influence of the Gates and Buffet fortunes linked to the Walton family's belief in the Walmart economic model of accountability as the assumed solution to all educational issues.

Ravitch concludes her criticism of educational policies over the past 25 years by making explicit the link between education and democracy: "our public education system is a fundamental element of our democratic society". The significance of this connection is central to her 2013 book Reign of Error, in which she concludes that, "our communities created public schools to develop citizens and to sustain our democracy. That is their abiding purpose… When public education is in danger, democracy is jeopardized."

The Life of Synthesis?

However there is another aspect of this story of great importance to both England and America but it is almost entirely missed in Ravitch's account (even though she has an obvious affection for its creator, the former President of the American Federation of Teachers, Dr Albert Shanker, who died in early 1997).

She attributes the creation of Charter Schools (along with what has become their English lookalike, namely Academies and Free Schools) to a speech that Shanker made in 1988. His idea had been that groups of teachers within individual schools should be allowed a "Charter" to experiment – for the good of the rest of the school and the District – with truly innovative ways of dealing with old problems. So dismayed did Shanker become by the way in which the first of these Charters was manipulated to undermine the very democratic basis of American public education that he totally withdrew his support from the Charter School movement in 1993. One detects that, from the way Ravitch describes this 15 years later, she wished she had followed his example.

I first got to know Al Shanker when he and I were addressing a conference in Helsinki in 1987. He was a big man in every sense, an amazing polymath with a voracious capacity to absorb new ideas. In a speech to the Institute of Economic Affairs in London in about 1990 he warned against the dumbing down of teachers, saying "the more you trust teachers the thinner the rule book: the less you trust them the thicker that rule book becomes". He went on, "the factory, rather than a moral, learning community – is the inspiration for the traditional school. When the factory was touted as the ideal organisation for work, and when most youngsters were headed for its assembly lines, making a mass public education system conform to the model of the factory may have seemed like a great achievement".

Shanker was the only man I knew in America (and I knew of no one comparable in the United Kingdom) with the intellect and the sheer physical presence to master the findings of erudite research and he expressed this with a clarity that had escaped everybody else. He was also able to draw research programmes together in ways that made more sense than when any one of the disciplines remained on its own. He contributed a weekly column to the Saturday edition of *The New York Times*. Even more remarkable, as a union leader, he forced the challenging nature of these ideas on his disparate union membership. By birth he hailed from Eastern Europe and subsequently used his immense influence to strengthen teachers' ability in Poland and other former Communist countries, to deepen an appreciation of democracy in countries escaping from Communism. In all senses Al Shanker was a colossus of a man.

Shanker was more concerned to revitalise the practice of teaching, and the life of pupils, than he was to worry about issues of governance. He later wrote "the limitations of America's traditional factory model of education have become manifest, and they are crippling. The traditional model of schooling is, therefore, incompatible with the idea that students are workers, that learning must be active and that children learn in different ways and at different rates".

Shanker got me to read a remarkable book on transferable skills and the development of expertise – *Surpassing Ourselves* by the Canadians Bereiter and Scardamalia[39] – and enthused me about the emerging studies in the neurosciences. He was the first to draw to my attention the article "Making Thinking Visible" about the significance of cognitive apprenticeship when linked to both psychological and neurological studies, and then the book by the Caines, a husband and wife team, *Making Connections: Education and the human brain* and then he got me into the management theories of Peter Drucker.

Then, as my informal and highly valuable personal tutor, he put me in touch with Seymour Papert and his work on children and technology, *The Children's Machine*. Later he pushed into my hand a copy of Mitchell Waldrop's *Complexity: the emerging science at the edge of order and chaos* (1992). He got me to meet David Perkins, Howard Gardner's colleague at Harvard whose book *Outsmarting IQ: the emerging science of learnable intelligence* I found almost unputdownable. Then he told me of the new work by the cognitive scientist John Breuer, *Schools for Thought: a science of learnable intelligence* (1993), that finally convinced me that a synthesis of all these different disciplines was needed to provide the intellectual basis for what Al called "genuine school transformation".

It was all this that propelled me to accept the invitation to go to Washington in late 1995 to set up the network of education thinkers and researchers that rapidly led to the creation of the 21st Century Learning Initiative.

By the time I reached America, however, Shanker was already seriously ill from the cancer which was to kill him two years later. When I started to draw many of these people together for six conferences at Wingspread in Wisconsin, a terrible rift was beginning to open up in the United States between those in the biomedical sciences enthused by what functional MRI and genetic studies might contribute towards a better understanding of the growth of the young brain, and those psychologists and cognitive scientists who feared that biomedical research would appropriate the very funds that they had anticipated would come to them. Shanker, the only man who could have boxed a few heads together and forced the various scientists to realise that together they spoke with infinitely more strength than if they allowed themselves to split into sectional interests, was already dying. At his funeral held at American University in Washington there were nine speeches. The first seven were an enormous testimony to Shanker's work. The eighth was from Al Gore, the Vice-President of the United States. It was brilliant. It seemed as if nobody could encapsulate what Shanker was about in a finer set of words, but then up spoke Bill Clinton by recounting a phone conversation he had with Shanker only days before his death and proved that he could do just that.

How many of the warring scientists in that room would ever have both a President and a Vice-President of the United States contributing to their funeral eulogy?

* * *

The Death of Synthesis?

By the latter 1990s Shanker was no longer there to knock heads together. Gradually the row between the cognitive scientists and the biological evolutionary scientists was reaching boiling point.

John Breuer (the cognitive scientist) launched his broadside of *The Myth of the First Three Years* in 1997 in which he staked the claim for a social and cognitive science as being the prime, if not the only way, in which human learning can be understood. Writing in "Educational Researcher" later that year he published a blistering attack entitled "Education and the Brain: a bridge too far".

Researchers have subsequently squabbled with such venom it was as if they were Reformation and Counter-Reformation theologians disputing how many angels could dance on a pinhead.

When the Association for Supervision and Curriculum Development (ASCD) had published my article in Educational Leadership "To Be Intelligent" in March 1997 it was later identified by "Psychology Today" as the one of the four most outstanding articles on cognitive processes published that year in the United States.

That was fine but it was not sufficient. By basing part of my argument – as I believe Shanker would have done – on what was emerging from the studies of the developing brain as shown by Functional MRI scans and combining that with what other work had shown on cognitive apprenticeship, it seemed to those swayed by John Breuer's apt quote to be indeed a "bridge too far". Although I was invited to discuss my position with Dr Bruce Alberts, the President of the National Academy of Science, and its committee on developments in the science of learning (its report was published under the title "How people learn; brain, mind, experience and school") my suggestion that issues of human learning went far beyond the walls of the classroom, and the theories of psychologists, were quietly ignored. How I needed Shanker to help back me up! The case I was making desperately needed somebody of comparable status to Shanker who was an acknowledged synthesiser able to comprehend how biomedical research could, and should, complement and extend the work of cognitive and behavioural scientists. The problem I and my colleagues were having was well articulated by Vaclav Havel (himself a poet, political activist and President of his country rather than a research

39
Bereiter, C. And Scardamalia, M. (1993) *Surpassing Ourselves: An Inquiry into the nature and implications of expertise*, Chicago: Open Court Publishing,

scientist) when he said in 2000 "education is the ability to perceive the hidden connections between phenomena".

There were few in American academia who understood this, and perhaps also in England with the obvious exception of Professor Susan Greenfield, soon to become Director of the Royal Institution.

In 1999 I tried to intrude this thinking into the ideas of Chester (Checker) Finn, a close colleague of Diane Ravitch and President of the Thomas Fordham Foundation who was to become an early promoter of Charter Schools – but with no success. To Finn, as to so many others in England and America whose training was essentially in the behavioural sciences and the humanities, there was no obvious connection between synaptic malfunctioning which could only be seen under a high-powered microscope and the way in which people behave and think.

Later that year I had to return to England. I closed down the Initiative in Washington, as our largest sponsors having declared that "we had gone too far" by describing the Western education system as "upside down and inside out" and by implying that this should lead to a reversal in the distribution of funds between primary and secondary education.

I found myself back in a country that seemed anxious to follow the political initiatives set up in the United States, but often with a time lapse of three or four years. Bringing these ideas with me back to England I found myself in considerable demand as a speaker at endless teachers' conferences – the English at this stage were fascinated by what I was saying. But steadily what was happening in America when I had left (and which Diane Ravitch so well describes) came to be repeated in England with a frightening predictability. As first a Labour then a Conservative administration pulled ever more authority away from the 140 or so locally accountable educational authorities, with its claim of giving every school more "freedom". By "freedom" they seemed to imply escaping from local political control, yet tying themselves ever-closer to the mandarins of Whitehall, and the whims of the Minister. English education seemed caught up in a continuous flurry of disconnected initiatives which few understood. What, ever more people started to say, was education supposed to be about?

By 2007 Diane Ravitch was asking the same question. She now believes the problem goes back to the way in which the accountability agenda took over from the standards movement: in simple terms the emphasis on what could be measured replaced concern about what should be taught. How it happened at first sight seems to be a very American phenomena – but it's not. It goes back to who the American people think they are, and who they want to be. The clue to this is in the people's perception of who they are in academic terms, and that has to mean what history is taught in the schools.

In America the nature of the history curriculum is a most vexed issue. How could Columbus have "discovered" America if the "Americans" had not been living there themselves for thousands of years? Can Americans of African origin have the same affinity for European culture as to the WASPS of New England? Do the masses who, only a generation or so ago, escaped from "industrial bondage" believe in the recuperative capabilities of unbridled capitalism? Whose side would you have been on in the Civil War, and do recent immigrants have a greater loyalty to the values of their new homeland than they did to their countries of origin? Whose literature should children be taught; whose music should they espouse, and are they really citizens of the world if, first and foremost, they believe in America's world economic dominance?

By replacing the standards movement in 1996 with the accountability movement, what had once been an effort to improve the quality of education turned into little more than an accounting strategy: measure, then punish or reward. Sensing a political quagmire, Federal politicians decided to leave to the individual states the decision as to what to teach and how to teach it. Fifty different curricula arose of highly variable quality, and multiple ways of looking at children's learning, so confusing any development of a national vision of education. George W. Bush bought in the "No Child Left Behind" strategy with its emphasis on high-stakes testing, data-driven decision making, choice, Charter Schools, privatisation, regulation, merit pay and competition amongst schools. Incredible as it might seem, by 2008 this had been taken up by the Democrats.

* * *

To an Englishman this is all too familiar – we too have been befogged by statistics and the mesmeric impact such abstract data can have. But reading a detailed analysis of how this can pervert the delivery of education in someone else's country can challenge readers to reflect more dispassionately about affairs in their own land. By 2007 Ravitch had become quite unequivocal in her judgement – without a national vision of what good education involves the test results alone simply provide a treacherous smokescreen to what is actually happening in schools.

"Schools that expect nothing more of their students than the mastery of basic skills will not produce graduates who are ready for college, or the workplace", she now writes, and then continues, "without a comprehensive liberal arts education our students will not be prepared for the responsibilities of citizenship in a democracy." And it is no less than the very nature of democracy that is at stake. "The essential mission of the public school" she reiterates in her 2013 polemic, "is

not merely to prepare workers for the global workforce, but to prepare citizens with the minds, hearts and characters to sustain our democracy into the future."

Ravitch is at pains to say that education is an arduous process and always requires enormous effort to succeed. "The most durable way to improve schools is to improve curriculum and instruction and to improve conditions in which teachers work and children learn, rather than endlessly squabbling over how schools systems should be organised, managed and controlled. It is not the organisation of the schools that is at fault but the ignorance we deplore, with the lack of sound educational values".

Out of the dozen reasons that Ravitch quotes as to why schools will not improve under the present regime I select four:

1. … if elected officials intrude into pedagogical territory and make decisions that properly should be made by professional educators, Congress and State legislatures (for which we English should read Parliament and the local town hall) should not tell teachers how to teach, any more than they should tell surgeons how to perform operations.

2. … if we value only what tests measure we miss the point, for not everything that matters can be so quantified – such as a student's ability to seek alternative explanations, to raise questions, to pursue knowledge on his or her own and, critically, to think differently.

3. … if we entrust educational policy making to the magical powers of market choice, education is reduced to a matter of winners and losers. Surely our goal must be to establish school systems that foster academic excellence in every school and every neighbourhood?

4. … if we expect schools to act like private, profit-seeking enterprises we fail, for the goal of education is not to produce higher scores, but to educate children to become responsible people with well-developed minds and good character.

Nor will schools improve if they are used as society's all-purpose punching-bag, blaming them for all the ills of the economy and the problems created by poverty, dysfunctional families and the erosion of civility. She states passionately, "if there is one thing all educators know, and that many studies have confirmed for decades, it is that there is no single answer to educational improvement. There is no silver bullet", and it all starts with the need for a well thought through, respected and robust vision of what is involved in good education. Ravitch developed this further in 2013: "Genuine school reform" she wrote, "must be built on hope, not fear… To be lasting, school reform must rely on collaboration and teamwork amongst students, parents, teachers, principals, administrators, and local communities."

* * *

The 21st Century Learning Initiative endorsed such a sentiment even before it produced "the Synthesis" (1996), drawing upon a vast range of research studies into how the brain works and children learn as a result of the first set of Wingspread conferences in 1995. But the Initiative added the additional ingredient – namely that the biological origins of the human brain give it a certain "grain" which, if worked with, can achieve magnificent results, but if ignored (as it has been in so much present pedagogic practice both sides of the Atlantic) children simply fail to develop in the way that they are entitled to do.

In both America and England academics and intellectuals have lost their (often despised) authority with which to challenge those simplistic political dogmas and snake-oil placebos that have so bedevilled educational policy for more than a generation, and have allowed ambitious politicians to selectively put one set of research findings against another in contexts which make no apparent sense.

Albert Shanker understood this and had the vision of a genuinely well-educated society able to sustain American democracy. Where is his successor, either in England or in America?

Without the ability to synthesise – to draw together those different yet most certainly valid understandings of the wonder of human learning as set out by scientists, philosophers and practitioners – education flounders for the lack of a really good map. Without such a map we are lost.

The poet Edna St. Vincent Millay, writing in 1939, expressed this perfectly.

Upon this gifted age, in its dark hour,
Rains from the sky a meteoric shower
Of facts . . . they lie unquestioned,
uncombined.
Wisdom enough to leech us of our ill
Is daily spun, but there exists no loom
To weave it into fabric.

Where is the weaver, and in which country the loom?

* * *

In the summer of 2013, I commented on the recent published works of Andrew Adonis in the UK, Daniel Willingham in the US, and how Michael Gove, as Minister for Education in England, was using these statements to further his top-down policies.

Lord Adonis and 'Education Education Education'.

It was in September that Andrew Adonis launched, to much public acclaim, his manifesto 'Education, Education, Education: Reforming England's Schools' which was an uncompromising justification for the further extension of the free-standing Academies as a replacement for local democratic control. Some five years before I had had a most interesting exchange of views with Adonis on the subject of quality education, and was so disturbed by what I read in his book that I decided to write to him in some detail; "as both of us often try and call history as our witness, we each have to be extremely careful to avoid the curse of revisionism. I wish to make three observations. Firstly, about democracy and the relationship of education to civil society, secondly the impact on today's schooling of the thinking behind the 1902 Education Act which was compounded by subsequent problems on the Act of 1944 and thirdly, what should by now be the challenge to the conventional assumptions about the 'rightness' of current school structures by the ever more convincing findings into effective human learning emerging from biomedical and cognitive research."

It was a carefully structured letter and I concluded most carefully, "while you are certainly right to call for transformational change, I don't think that you have yet got these three issues into their proper relationship. National survival (contentment?) depends more on the development of a people's applied common sense (wits), and their ability to pull together within communities comprised of people with disparate skills and interests, than it does on abstract intellectual knowledge." I then put in what I thought was the crunch of the issue… "Parliament indeed serves the country best when it creates the conditions for people to put their personal creativity into action for the good of the whole, rather than into sectional interest."

To my amazement and disappointment I didn't even receive an acknowledgement of my letter.

Michael Gove, Professor Daniel Willingham and 'Why Don't Students Like School?'

In November Michael Gove extolled three times in a very public speech what he said was the 'brilliant writing' of Professor Daniel Willingham from the University of Virginia from which he had concluded that an ever-more rigorous testing regime was really in the national interest. I decided to read the book myself most carefully. It reminded me instantly of the argument that I heard frequently 10-15 years ago in Washington DC when cognitive scientists advancing theories which they claimed could be substantiated numerically through tests clashed with evolutionary psychologists, philosophers, systems-thinkers and anthropologists, best summarised by Gerald Edelman, the Nobel-winning neurobiologist: "Get rid of that damn machine model. It's wrong. The brain is a biological system, not a machine. Currently we are putting children with biologically shaped brains into machine-orientated schools. The two just don't mix. We bog the school down in a curriculum that is not biologically feasible".

Sensing how much emphasis Michael Gove was placing on Willingham's conclusions I emailed him on the 29th January 2013 and received almost by reply a most insubstantial justification for his theories. Ten days later I wrote a fuller comment and suggested that I might be able to meet with him in the latter part of April on the way back from Vancouver. After a couple of prompts he expressed a willingness to meet in Washington, and that meeting is now in the process of being organised.

For further reading about the tensions described here, please refer to the 17 folders in our archives at www.21learn.org/the-timeline

Appendix D

Context is Key... Finland and OECD

Since the world's media became preoccupied with the publication of the latest round of the OECD statistics released only ten days ago, the blogosphere has had a field day interpreting the results from vastly different perspectives and agendas. The more you read, the more confused it is possible to become, and this is before any serious commentators have had the opportunity to study the full four volumes of the report, running to some 1968 pages with numerous tables of statistics.

Because I have referenced Finland several times in *Battling for the Soul of Education*, and drawn comparisons between the development of educational thought in England and Finland over the past four centuries in *The Nature of England's Educational Dilemma*', I feel it useful to make this interim set of comments.

From my perspective, the key issue in all of this is the relationship between what kind of world we, as individuals and collectively, believe we should create, and then decide what form of education would best do this. This issue is so desperately important and I increasingly fear it will be lost in the midst of what could easily deteriorate into ideological infighting.

To help our thinking, three commentators, representing interesting different views on this, and each coming from a different context, can be found in these three blog posts:

Yong Zhao – Reading the PISA tea leaves: Who is responsible for Finland's decline and the Asian magic?

Yong Zhao is the Presidential Chair and Director of the Institute for Global and Online Education in the College of Education, University of Oregon, where he is also a Professor in the Department of Educational Measurement, Policy, and Leadership. He was born and educated in China and was previously the Executive Director of the Confucius Institute and US-China Centre for Research on Educational Excellence.

Sam Freedman – 10 Things You Should Know About Pisa

Sam Freedman is currently Director of Research, Evaluation and Impact at Teach First in London. Between 2009 and2013 he served as a policy adviser to Michael Gove. He writes here in a personal capacity.

Pasi Sahlberg – Is PISA Dimming the Northern Lights?

Pasi Sahlberg is a Finnish educator and scholar and currently a visiting Professor of Practice at Harvard University's Graduate School of Education. He worked as schoolteacher, teacher educator and policy advisor in Finland and has studied education systems and reforms around the world. His bestseller book *Finnish Lessons: What can the world learn from educational change in Finland* (Teachers College Press, 2011) won the 2013 Grawemeyer Award. He is a former Director General of CIMO (Centre for International Mobility and Cooperation) in Helsinki.

I would add a fourth, from the perspective of teachers in America:

American Federation of Teachers – What does the PISA Report tell us about U.S. Education?

If there is a conclusion at this stage, there is no one universal plan – it is up to us; "Wanderer, there is no road, the road is made by walking" (Antonio Machada, *Campos de Castilla*, 1912).

Appendix E

The Smartest Kids in the World;and how they got that way By Amanda Ripley.

Published by Simon and Schuster, New York
August 2013, New York Times Bestseller

What does society mean when it talks about "Smart Kids"? And how is it that some kids become "smart", and do things that others simply can't?

Important questions in whatever country you may live and which merit the most thoughtful answers. In this profoundly perceptive book Ripley employs an interesting device to find answers: she follows three high school students from Oklahoma, Minnesota and Pennsylvania on year-long exchanges in schools in the very different cultures of Finland, South Korea and Poland. *The New York Times* reviewer wrote that Ripley "gets well beneath the glossy surfaces of these foreign cultures and manages to make our (i.e. American) culture look newly strange".

"Newly strange" is an interesting turn of phrase that suggests Ripley knows her intended US audience well. She sets out to expose what passes as good practice in many parts of America, but, "whether the startling perspective provided by this masterly book", questions *The New York Times* review, "will generate the will (in the US) to make changes," remains to be seen.

Although Ripley makes only the briefest reference to the United Kingdom, her description of what is happening in various countries around the world should immediately alert English readers to the dangers of assuming that those kinds of education reform developed in the United States should set the pace for what we English ought to do.

Ripley's highly perceptive and rigorous analysis of each student's earlier education in the States, and how this enabled each to appreciate the educational culture of their host countries from a learner's rather than a teacher's perspective is, in reality, a double-edged sword. Ripley uses this device most sensitively, neatly dovetailing the conversations of students into her own findings, along with the personal observations of administrators and politicians in each of those countries. The reader learns as much about the faults and achievements of American education as it does about those of the host countries – Finland, South Korea and Poland.

It starts with Kim the sixteen year old from Oklahoma, who spent a year in Finland, and came to understand how the country's extraordinary progress over the past sixty years is largely due to do with those mental habit of mind the Finns call 'SISU'.

'Sisu' means an inner drive, a kind of cultural DNA bred into the people over more than sixty years of struggle… "a compound of 'bravery and bravado'… the ability to keep fighting after most people would have quit, and to fight with the will to survive". The nearest English synonym would probably be "GRIT".

What most struck Kim was that her contemporaries in her Finnish school had a strong inner sense of purpose. Tom felt the same about his friends in Poland. But Ripley is quick to explain that unless that national sense of drive is linked to more attainable humanistic traits then it can wreck havoc upon vast swathes of its people. Which is exactly what Eric felt about his experience in South Korea that forced him to flee the country before his internship formally concluded.

One of the most interesting parts of this intriguing book is the discussion Ripley records of her meeting with the South Korean Minister, Lee Ju-Ho. He himself was a product of the same pressure-cooker approach which, over a 60 year period had transformed a rather conventional, unimaginative form of schooling into that of a talented country and in doing so, "we have created a monster", concluded the Minister.

Korean schools exist for one, and only one, purpose: so that children could master complex academic material. Personally, Lee thought that Finland was a far better model than what was currently happening in his own country. He reflected that Finland spent less per pupil on education and only one in ten Finnish students took after-school lessons, whereas in Korea it was seven in ten. "There is more than one way to become a super power", warned the Minister. "Take care to choose the high road".

In an extended meeting, the Polish Minister Miroslaw Handke explained how it had taken six years to make significant changes across the Polish education system, to start getting "our youth to think for themselves". Having watched the experiences of these three teenagers over a whole year as they reacted to cultures very different to their own, Ripley draws some critical conclusions:

- "There was a consensus in Finland, Korea and Poland that all children had to learn higher-order thinking in order to thrive in the world. In every case, that agreement had been born out of a crisis; economic imperatives that had focused the national mind in a way that good intentions never would. Those countries took school more seriously *because it was more serious*. High school in those countries had a purpose like high-school football practice in America. There was a big, important contest at the end, and the score counted. Their teachers were more serious, too: highly educated, well-trained,

and carefully chosen. They had enough autonomy to do serious work: that meant they had a better chance of adapting and changing along with their students and the economy.

- "The students had independence, too, which made school more bearable and cultivated more driven, self-sufficient high school graduates. The closer they got to adulthood, the more they got to act like adults…

- "In the United States and other countries, we'd put off this reckoning, convinced that our kids would always get second and third chances until well into adulthood. We had the same attitude toward teachers; anyone and everyone could become a teacher, so long as they showed up for class, followed the rules, and had good intentions. We had the schools we wanted, in a way. Parents did not tend to show up at schools demanding that their kids be assigned more challenging reading, or that kindergarteners learn Math while they still loved numbers. They did show up to complain about bad grades, however. And they came in droves, with video cameras and lawn chairs and full hearts to watch their children play sports…

- "That mindset had worked alright for most American kids, historically speaking. Most hadn't needed a very rigorous education, and they hadn't gotten it. Wealth had made rigour optional in America. But everything has changed. In an automated, global economy, kids need to be driven; they need to know how to adapt since they will be doing it for all their lives. Essentially they need a culture of rigour. There were different ways to get to rigour, not all of them good. In Korea, the 'hamster wheel' created as many problems as it solved. Joyless learning led mostly to good test scores, not to a resilient population, and there is much evidence to show that this system burns itself out."

Ripley concludes that if she had to choose between the 'hamster wheel' and the 'moon bounce' (kids kept artificially 'high' on an excess of sugar and other stimulants) that characterises many schools in the United States and other countries – a false choice needless to say – she would reluctantly choose the hamster wheel. It was relentless and excessive, yes, but it also felt more honest. Kids in hamster wheel countries knew what it felt like to grapple with complex ideals. What this book shows however, is that in a country where everything about children pulls together in a way that is consistent with national aspirations – Finland, of course – high qualifications do not mean the killing of the imagination or the destruction of a sense of self-responsibility.

Appendix F

A proposed television series: 'The Brilliance of their Minds'

Much influenced some four years ago by Joseph Bronowski's epic TV series 'Ascent of Man' (1973), it has long been our conviction that the narrative the Initiative tells could be set into multi-scene set of television programmes to be entitled 'The Brilliance of Their Minds'. This explanation would start with the evolution of the human brain, and trace the application of this through Western and then English education, through to the present day.

Included here are six specimen scenes to give a feel of what could be the whole series. The Initiative would be happy to discuss with any potential producer how the entire script could be developed into a significant television programme.

The purpose of the proposed documentary is to show that, "Education stands in danger of seeing people only as tools for economic progress, unless it is accompanied by a vision of individuals as creative, responsible, spiritual and society as the matrix within which genuine fulfilment is the goal for all."

* * *

Documentary Summary

This documentary has a most serious intent. Too often in the past education reform has been more concerned with addressing the obvious symptoms of a problem, rather than addressing the cause of the problem itself. Now in the early 21st century the present arrangements are so overlaid by layer upon layer of 'quick fix' solutions that to cut through to the underlying causes requires a level of knowledge and background most people simply just do not have. If ever it were true that a people who forget their history simply live to make the same mistakes all over again, it is now. The situation is serious.

The spectacular rise in the standard of living in recent years has created an extraordinary paradox. The busier and wealthier people have become, the less time they seem to have for each other. This has created a crisis in how to educate the young. England, which only two centuries ago led the entire world into the modern industrial age by merging the genius of the few with the applied creativity of countless self-taught craftsmen, has forgotten the adolescent's instinctive need "to grow up" by so learning to do things for themselves that they emerge as responsible, skilful and thoughtful adults.

Instead of fostering such innate creativity the English, and subsequently other English speaking peoples, have started placing their faith in forms of institutional schooling that so go "against the grain of the brain" that they end up trivialising the very adolescents they claim to be supporting. By ignoring recent research in the socio-biological sciences, schools continue to over emphasise conformity and standard procedures.

While the human brain has evolved to function effectively in complex situations – we naturally think big and act small – modern education has become side-tracked into creating specialists who are well-qualified in their own narrow disciplines, but nothing like as good at seeing the wider impact of their actions. Because formal schooling has done its best to neutralise the impact of adolescence, recent generations of young people have been deprived of the strength of making difficult decisions, and learning to pick up the pieces if things go wrong.

Civilisation can never be taken for granted; it depends on a constant supply of responsible and tough new adolescents to replace the worn-out skills of their elders. Education is a multifaceted process that policy makers in many countries simplify and codify at society's peril, for to put excessive faith in a highly prescriptive form of schooling inhibits the very creativity and enterprise needed for an uncertain future. *This process has been exacerbated in recent years as national politicians have sought to take ever greater control over its delivery, almost regardless of what might be the specific circumstances of individual communities.* It is not simply a crisis of schooling that has to be faced, but the much more serious problem, namely, a collapse of the family and the emasculation of community.

Over the past decade several English speaking countries, have focused their reforming strategies on 'breaking down' the old structural arrangements in the hope that this shakeup will induce reform right across vast systems. The alternative is to concentrate on the minutiae of improving the personal motivation of individuals at all levels so as to 'build up' a widespread sense of community ownership, to create the energy for continuous improvement.

The larger the unit to be reformed, the more difficult it is to invest in a 'building up' strategy – yet it is only by investing in the intrinsic motivation of individuals in each community that entire systems develop the capacity for continuous development. Most regrettably England and the United States have progressively removed the control of education from local communities, thereby directly being answerable to large scale national directives, applying the 'break down' model of

development.

This documentary aims to help the English find a way out of the ever deeper hole they have dug, by concluding with a study of the Canadian province of British Columbia. This province has progressively reinforced local community ownership as a way of reaching standards of achievement already well in advance of the English and United States systems. With only 4.5 million people – one twelfth of the population of the United Kingdom but scattered over the land area three times that size – British Columbia has no difficulty in finding sufficient people to stand as trustees of the 60 school districts, each administered with apparently greater efficiency than England can manage with its ever more centralised government.

In placing its faith in local decision-making, British Columbia is far better able to innovate than is possible in more congested England, where economies of scale too often prove to be a dangerous illusion. Twenty years before the English established a tripartite system of secondary schooling in 1944, British Columbia had already started to adopt John Dewey's belief that "education is life, not a mere preparation for life".

England could also develop the brilliance of its children's minds if it heeded the message of this programme and started to build the system up from the bottom by investing in the intrinsic motivation of whole communities, rather than being constrained by its draconian 'command and control' methodologies.

So there is a technical challenge, people are losing patience with printed text when there are more immediately attractive technologies. People look to television to give them quick, straightforward explanations. While a television documentary is the most appropriate of the present media to deal with this issue it has always to be remembered that if the audience's attention is lost for even a couple of minutes they can simply turn it off… long before the main point has been concluded. The delivery of such material as this has always to be fascinating, fun and mentally challenging… which is itself, a challenge when we are aiming to change the very way in which people look at an old problem but with new insights.

Specimen Scenes:

Theoretical narration by Tony Little, Head Master of Eton College

The Old School Room at Eton

Tony: I am standing in probably the oldest school room extant in the English speaking world. We think it was built in 1440; carbon dating of these timbers suggests they were growing at the time of William the Conqueror. In the centuries that have followed, ideas developed in rooms like this have shaped the education of the English speaking peoples – the repercussions can be felt across the world, such as in British Columbia in Canada which we will study later.

That there is no easy answer to the nature/nurture question concerned my predecessors in this room as it had done the Greeks long, long ago, and our recent Victorian ancestors. Current thinking polarises around three beliefs, each of which was articulated at least 2500 years ago.

Tony turns to looking at a bust of Plato

Tony: Plato taught that the effectiveness of the human brain was all to do with inheritance – those born to be leaders had gold in their blood, those to be administrators, with silver, while the common man (the vast majority) had only Iron. To Plato destiny was fixed at the moment of conception.

Turn to a globe, point out Greece, and then move over to the Ancient Hebrews

Tony: Not so, said the ancient Hebrews, it's all far more dynamic than that, so "do not confine your children to your own learning, for they were born in another time". Learning – to those ancient seers from the desert – was dependent on taking the wisdom accumulated by your ancestors and (and this was critical to the Jews) adapting it to ever-changing circumstances.

Shifting via the globe to China and a representation of Confucius

Tony: Half a world away in China, Confucius noted that "man's natures are alike; it is their habits that carry them far apart." Confucius reminded all those who would listen that "tell a child and he will forget; show him and he will remember; but let him do, and he will understand". While any observant parent will readily agree with such an observation, some politicians will dismiss this simply as failed 'child-centred' or progressive dogma.

Charles Darwin's study in Down House, Kent

Tony: In today's world, do these conflicting explanations still have any value or can contemporary scientific research show how each actually expresses one aspect of what shapes human learning … and what might this mean for pupils at Eton College, a comprehensive school, a bush school in Tanzania, or in the school districts of British Columbia on Canada's Pacific coast?

I am standing in Charles Darwin's study in Down House, where in 1859 Darwin published 'The Origin of Species'. In this he set out that all life is a "work in progress" and subject

to continuous, long-term adaptations. Only in the last half century (and essentially in the last 25 years) has biomedical technology, linked up with genetics, evolutionary studies, systems thinking and anthropology, to help explain how the human brain has been shaped by the way our ancestors adapted to their environment.

Windsor Castle, 1563

Tony looking across the river to Windsor Castle, moving to old room in Castle, Actors assembling- Historic reconstruction

Tony: The first book ever written in English about education was The Scholemaster by Roger Ascham in 1570. Here is one of the Queen Elizabeth's private chambers. Imagine this as it was in December 1563. It was a particularly cold winter forcing the Queen and her Council to take refuge here from the plague that was raging in London. It was only five years since the death of Mary had brought to an end the attempt to stamp out the Protestant Revolution. King Philip of Spain and the rest of Catholic Europe were baying for the life of the young Queen Elizabeth. Unstable times indeed, for spies might well be hiding in the closet, traitors lurking behind the arras.

Gathering in this room are Sir William Cecil, the nearest Elizabeth came to having a Prime Minister, his Chancellor of the Exchequer, a number of noblemen and the Queen's private tutor, Roger Ascham.

Actor Sir William Cecil: I have strange news brought to me this morning that diverse scholars of Eton College be running away from their school for fear of beating. Many times they punish rather the weakness of nature, than the fault of the scholar. So pupils who might otherwise prove strong scholars are driven to hate learning before they come to value knowledge; and so forsake their books and be glad to escape to any other kind of living.

Actor Sir William Peter: The rod only has to be the sword that must keep the scholar in obedience and the school in good order.

Actor Bishop Nicholas Wootton: In my opinion the School House should be indeed, as it is called by name the house of play and pleasure, and not of fear and bondage as I do well remember from my childhood.

Actor Roger Ascham (Classical Scholar & Queen Elizabeth's private tutor): I think something similar. Teachers should cultivate hard wits rather than the superficial quick wits of those youngsters whose memories are good but who cannot work things out for themselves. In my old age I know that those which be commonly the wisest, the best learned, and best known also when they were old, were never commonly the quickest of wits when they were young.

Tony: It is extraordinary, isn't it, that 400 years ago the debate was between those whose learning consisted of good memory (quick wits) and those who had learnt to work things out for themselves (hard wits). Too often education reform has been more concerned with addressing the obvious symptoms of a problem, rather than addressing the cause of the problem itself. Now in the early 21st century the present arrangements are so overlaid by layer upon layer of 'quick fix' solutions that to cut through to the underlying causes requires a level of knowledge and background most people simply just do not have. If ever it was true that a people who forget their history simply live to make the same mistakes all over again, it is now. We cannot afford to make these mistakes any longer.

Ascham was beneficially influential for many reasons but his third injunction shows how set in the new Protestant thinking he was -

Actor Roger Ascham: "in the attainment of wisdom, learning from a book, or from a teacher, is twenty times as effective as learning from experience"

Tony: he justified this saying that it was an unhappy mariner who learnt his craft from many shipwrecks but the truth of the matter was Ascham had been shocked to see in Rome the beautiful, but to his mind the unnecessarily lascivious statues being uncovered from Greek and Roman times. Consequently Ascham defined the responsibility of teachers as being to censor what the child learnt.

Inside the Imperial War Museum

Tony: while all those arguments were raging in the 1930s Hitler was coming to power. Many an Englishmen became disillusioned that what they had fought for in the 1914/18 war had subsequently been squandered by the politicians. So when the Second World War broke out there were no crowds wishing to enlist and the coalition government in 1940 realised that if people were to be rallied a second time they would need guarantees that their sacrifices really would lead to a better and more equitable society – better education, better health and better social security.

In 1940, Churchill appointed R. A. Butler (RAB) as the new Minister of Education.

Few second shot of Butler pontificating

Tony: Paternalistic and late Victorian in nature, Butler favoured Livingstone's ideas. His Permanent Secretary however was of a very different persuasion. A former classical scholar and an archetypal civil servant in the mould of Robert Morant, Maurice Holmes believed that he should control his Minister and persuaded Butler that Cyril Burt's IQ tests could give scientific credibility to what he, with his classical

background, really believed: that is, that Plato had it right in his tri-partite description of humanity.

Actor John Newsome: I was involved in implementing these political decisions. As a young man I had been more influenced by the academic humanism of John Dewey than I was by Watson and the behaviourists. It fell to me to combine something of this in the post-war Secondary School system. The school leaving age would be raised to fifteen at some point 'soon' but there was so much uncertainty about when it would be raised, Butler lopped three years off the old elementary school curriculum to make eleven, not fourteen, the age of transfer. Secondary education was then to be split into three different strands, entry to which would depend on the results of intelligence tests and the Eleven Plus examination: which combined questions of general intelligence, general knowledge, mathematical and literary assessment.

Alan Marshall (intro: former HMI of technology): The impact of the Eleven Plus was frequently devastating as it was later shown that one child in six was misplaced. That became a national scandal as youngsters quickly slipped into performing simply at the level expected of them. Parents were instantly suspicious and spent much money on extra tuition to make sure that their children were well groomed to out-wit the testers. To understand England today is to remember that very many of the grandparents of today's so-called "difficult" pupils had themselves, like me, been discarded by these earlier tests. It wasn't their fault; it was a result of a system that was flawed from the start.

Actor John Newsome (holding a copy of his book): coming out of the army in 1945 I was appointed Chief Education Officer of Hertfordshire and one of the first things I did was to write a book to remind parents that "children are children first; they are only schoolchildren second. They are much more influenced by the conduct of their parents, than by their teachers. If you wish to help your child you should do this not by leaning heavily on his or her homework but by respecting your child's efforts to find truth, and sympathise with his difficulties; in other words, it means going on with your own education."

The 'Great' Debate, 1976 (or the Great Non-Event)

Tony Benn: in 1976, as a way of restoring some public confidence in his party after so badly messing up the direct grant system, Callaghan challenged the public to explore the nature of the curriculum. Unfortunately the debates lacked any energy and by that time the Labour government was losing the initiative and all eyes were turning on the Conservatives.

For their part, the educational establishment was aghast at having to explain itself to a potentially hostile populace and found their defence in so obfuscating the issues that the debate quickly lost focus and ran out of steam. There was an appalling lack of leadership amongst head teachers and chief education officers, many of whom were preoccupied with maintaining the status quo rather than planning boldly for a new system.

Neil Kinnock: the tripartite system of secondary education that had been proposed in 1944 was assumed to fit comfortably with the English assumptions of fixed roles within society and varying levels of intelligence were somehow innate – you'd either got 'it' or you hadn't.

By 1965 the public were no longer satisfied with such an explanation. They wanted to know what 'it' was…. and how they could get more of it. They wanted more open access to secondary education, but had no real idea of what a comprehensive school was.

The British had lifted uncritically the concept of a comprehensive school from America, where High Schools, invented in the 1930s, had been partly a response to keeping children off the streets in an ever more industrialised society. They also owed much to John Dewey's teaching and the psychologist's belief that adolescents need opportunity for self expression. Although now seen as a natural stage in maturation, psychologists in the early 20th century perceived adolescents as being a threat – both to themselves and to society. Quite simply, American psychologists persuaded the country at large that adolescents had to be "saved from themselves" by giving them so much school work to do that they wouldn't have time to think about sex or trying to work life out for themselves.

In Britain, as the smoke stacks started to fall in the late 1970s and the shipyards fell silent, the relevance of education to the well being of the nation was being fundamentally questioned; no longer would academic success alone be a guarantee that a young person would be empowered to tackle the challenge of a rapidly changing society. The country would need people with both a range of intellectual and social and practical skills together with flair, imagination, enterprise and the ability to work in teams as well as accepting individual responsibility. And it would need not just an elite group of such people, but rather whole generations of them, hundreds of thousands.

Meandering – the Helicoidal Brain

Following a fast moving stream to its ultimate meanders, sunny day

Tony: much of what you say about the way the brain works seems to run counter to what we teachers often assume, namely that learning proceeds in a linear, straightforward way. Have we got it wrong? Or at least partially wrong?

John striding down a Pennine valley: it's worth remembering that our brains have evolved over vast periods of time – something like a third of a million generations since parting company with the great apes. If that number seems too vast to comprehend it is roughly equivalent to the number of minutes we are each awake for in the course of a year. In that incredibly long story, each of us is only likely to know personally some six or seven minutes of that story: ourselves, our parents, grandparents, maybe great-grandparents and then our own children, grandchildren and, who knows, perhaps our great-grandchildren. At the most, that amounts to only 8 minutes of a yearlong story. The predisposition to learn in particular ways in my granddaughter born last year has been shaped by the way all those ancestors used their brains as they were moving around.

Until less than 200 years ago most people walked at 2 ½ or 3 miles per hour. At walking speed you notice things that are hidden to a driver of a car; you hear sounds, smell scents, and watch the 'gaite' of other travellers in case of trouble. Our brains have evolved over millions of years to monitor, control and protect our identities within the limitations of our fragile bodies as we move from point A to point B by way of any interesting diversions that attract our attention. To meander is the balanced state of mind and body. Meandering, be it in the country or a shopping mall, is simply what humans do well.

A meander is a geographical term describing the wide, sweeping, gentle banks in the lower course of a river. They are features that make you wonder why, given the very obvious energy of the river in its upper stages as it tumbles over waterfalls and cuts through gorges in its rush to the sea that it suddenly seems to lose its energy. Well?

John with a blackboard and chalk: Water never flows in a straight line. It's all to do with what is called 'helicoidal flow.' Imagine for a moment in a laboratory constructing a long, straight channel across a bed of sand and then letting water flow in at one end. Stand back and watch. The water, rather than flowing smoothly, quickly becomes turbulent. It is all to do with friction. The water in contact with either bank, or along the bottom of the channel, is held back by friction and can't go as fast as the water in the middle of the channel. Drop a piece of paper near to one bank and see how it is remorselessly pulled into the centre by the faster moving water and then caught up in an ebbing current and deposited on the other side. The water actually moves like a corkscrew, and by taking particles from one bank and mixing them up with other bits they get deposited on the other side. As the river reaches the flat ground near the sea it uses all its energy to create those beautiful, sinuous meanders… made up of an apparent chaotic muddle of bits and pieces drawn from many sources.

The brain works like that – I call it helicoidal flow. Contrary to the best expectations of endless education administrators learning is never linear; it is much more like the meandering river, shaped by helicoidal flow. Reflect on that. When you are gently meandering and going where the mood takes you, you will frequently find that you solve mental problems which, while sitting uncomfortably at your desk, you just couldn't work out.

That is why young children need playgrounds, adolescents need mountains to climb and adults prone to get uptight by being in their offices too long need to get out and meander, not in a straight line, but wherever the mood takes them. To meander is critical – always following a straight line can all too easily take you to the wrong place.

A Long Line of Everybody

Some personal acknowledgements from John Abbott

Years ago, as a young geography teacher at Manchester Grammar School, I led numerous expeditions of school-aged youngsters first to many of the islands of the Hebrides and then to study nomadic tribesmen as they migrated through the Elburz and Zagros mountains of Iran. Expedition life fascinated me as much as I think it did the youngsters. As deputy Chairman of the Royal Geographical Society's Expeditions Committee I would, all those years ago, quote A.A.Milne's Christopher Robin giving Winnie the Pooh his definition of an Expedition as "a long line of everybody".

Looking back over thirty years I see the development of the Initiative's thinking as an on-going conversation between that "long line of everybody"... literally tens of thousands of thoughtful, knowledgeable people, metaphorically joining their thinking together as these ideas have circled around the world, that has created this synthesis.

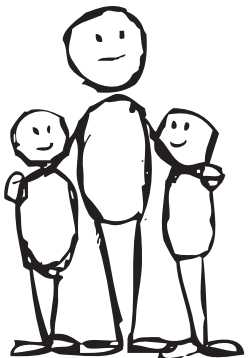
I can't recollect all those thoughts and conversations with any real degree of accuracy, and such is the fallibility of my memory that I fear I am bound to omit many. At the beginning there was Ray Dalton (formerly of Homerton College Cambridge) who introduced me to the expanding field of theoretical research into the nature of human learning. At the same time, David Peake (formerly Chairman of Kleinwort Benson) became our most significant and continuous sponsor. None of this would have been possible without Chris Wysock-Wright and Professor Brian Thwaites, who had the foresight to create Education 2000 in 1983. I was privileged to become its first Director in 1985. David had taken over that role from our earlier Chairman, Sir Brian Corby, one time Chairman of the Prudential and the Confederation of British Industry, who was responsible for persuading Keith Joseph, formerly Minister of Education, to become our Honorary President. The early and timely influence of Alistair Burt MP in guiding me through the niceties of understanding politicians dates from his being PPS to Kenneth Baker through to his current position in the Foreign Office.

The Trust's strength of vision has been made possible by the dedication and support of a number of trustees who have stuck with these ideas over many years: Brian Richardson of Provident Mutual, the late Rt. Revd David Young Bishop of Ripon, and Bruce Farmer, Chairman of Morgan Crucible. Special mention must be given to Tom Griffin, founding partner of GT Management, who is our longest-standing trustee. In recent years the contribution of John Senior, John Price,

Neil Richards, Richard Hornbrook, Caroline Wijetunge and Pete Mountstephen as the newest trustees has been immense, as has that of Rex Emery. Foremost amongst the Initiative's supporters of many years is Janet Lawley, former Head of Bury Girls' Grammar School, who has given so much of her time and energy to the cause, and has been helpful in more ways than I can say. Mention must also be made to the extraordinary working relationship that has developed between myself and Tony Little, the Head Master of Eton College.

Although the position of Chief Education Officer has largely disappeared in England, alongside the 140 or so Local Education Authorities whose earlier task it was to facilitate coherent community responses to national government, I must acknowledge my great debt to those inspirational figures who until five or six years ago took on their broad shoulders the responsibility for nurturing both the successful and the struggling schools and teachers across the country. In particular, from long ago, Sir John Newsom, John Tomlinson (of Cheshire), more recently Sir Peter Newsam (of ILEA), and even more recently Bob Wolfson (of Wiltshire) and Mick Waters (Manchester). In parallel were discussions in Scotland with Keir Bloomer, currently of Reform Scotland, and in Ireland with a number of university and teacher research organisations loosely connected through the visionary Tom Healey and the then Provost of Trinity College, Dublin Dr Thomas Mitchell.

From 1996 to 1999 the Initiative was based in Washington DC. I would like to thank Terry Ryan, now Vice President of the Thomas B Fordham Institute, who became my personal assistant and was my co-author of *The Unfinished Revolution*, and whose enthusiasm and unshakeable support were so valuable. I would also like to pay tribute to the roles played during those years by The Wingspread Foundation in Wisconsin under its Director Charlie Bray, and in particular to Stephanie Pace-Marshall, Founding President of the Illinois Mathematics and Science Academy, and Ted Marchese of the American Association of Higher Education. Critical to the development of my argument was the way in which Bob Sylvester and Ron Brandt eased my entry into the American academic world, drawing me together with Ted Sizer of The Coalition of Essential Schools, Howard Gardener of Multiple Intelligence fame, and his colleague David Perkins of *Outsmarting I.Q... the emerging theory of Learnable Intelligence*, Ronald Wright, Peter Senge and most importantly the connections I was able to form with Gerald Edelman and the work that gained him a Nobel Prize on Neural Darwinism. At various stages I was actively encouraged by Dick Riley, one-time Education Secretary in the Clinton Administration, and Frank Newman of the Education Commission of the States.



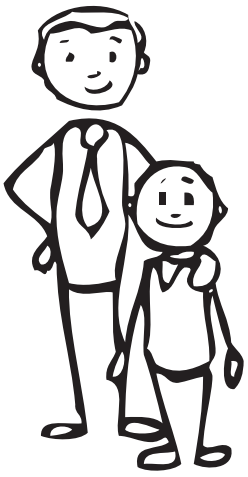
Frank Hartveldt of the New York-based United Nations Development Programme, and before that to the redoubtable Al Shanker, President of the American Federation of Teachers, and the Scandinavian scholar and radical administrator Per Dalin, and to Professor Richard Pring of Oxford. My thanks also go to Victor Kowlerski, Polish minister of education at the time of the collapse of the Iron Curtain, also to Frank Method of USAID, and the highly influential writers Geoffrey and Renata Caine.

Much of the substance of the ideas described in this document owe their origins to numerous presentations, made in virtually every Canadian Province, largely facilitated by Paul Cappon and the Canadian Council on Learning, especially Douglas Henderson and Wendy McMillan. Separate to the Canadian input, but equally important, were the range of lectures and presentations made very early this century around Europe, Africa, the Middle East, South East Asia, Japan and Australia. Here I owe a great deal to the enthusiasm and energy of Helen Drennen (Australia), Neil Richards (Japan and subsequently England), Kevin Hawkins (Tanzania and more recently Prague) and the various associations of international schools in Africa and S.E. Asia.

I would like to acknowledge especially the work of Heather MacTaggart, whose extraordinary energy and imagination enabled us both to write *Overschooled but Undereducated* in a hectic 12-month period in 2008/9. Over the years, neither the Initiative nor myself could have functioned properly without the diligence and expertise of Doreen Smith, Suzanne Dawes, Carolyn Shirley and most recently Jim Robinson as my tireless administrative assistants.

The publication of this document has been made possible by other, more recent members of that "long line of everybody"…Caroline Wijetunge, trustee and editor of the document, Martin Couzins who has helped enormously with the Initiative's websites, and my son David Abbott who, over many years, has kept track of all our contacts and presentations.

My thanks to a group of extraordinary enthusiastic interns, most recently Caitlin Lees-Massey who in the last three years has inherited the mantle of Rosie Gilchrist, Anna MacAndrew, Leigh Richter, Vicki Wolfe and Lorenzo McLellan. Through Caitlin we have developed a very good relationship with A Productions of Bristol, who have produced three major animations for us. These interns have been supplemented in Canada in the last couple of years by equally energetic students from the University of Victoria, who in turn have been supported by, amongst others, George Abbott, former BC Minister of Education (and apparently, but totally unknown to either of us,



my third cousin twice removed), Rod Allen of the BC Ministry of Education; to Steve Cardwell, Superintendent of Vancouver, and especially Jeff Hopkins whose ideas percolate right through this document.

Inevitably for each of us consciously proud to have been part of that 'long line of Everybody', our individual stories inevitably stretch far back into each of our distant experiences and the people who made each of us just who we have turned out to be. In my case, especially to the Antarctic explorer Lancelot Fleming, formerly Director of the Scott Polar Research Institute and later Bishop of Norwich and Dean of Windsor.

So now, in the publication of 'Battling for the Soul of Education' we are seeking, with a very limited budget, to share these fundamental ideas around the world before it is too late. It is therefore the hope of all of us that this long line of everybody will enthuse more and more people to develop a narrative of 'a complete and generous education that fits a person to perform justly, skilfully and magnanimously'. After all, a quality education should surely be more than a mere extension of schooling.

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