

Education 2020 A Millennium Vision

Issues and Ideas for the Future of
Education in Northern Ireland

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Introduction

John Gardner and Ruth Leitch

Divining the future is the fashionable thing to do at the turn of a century, and it is even more in vogue at the turn of a millennium. There have been many examples of future-gazing in the past year or so and the world of education has proven no exception. Runes have been pored over, entrails have been poked through and soothsayers have been consulted. In those few places where tea-leaves still exist, they have also been given a swirl!

Some would say that these ancient means are as good as any; that educational policy is too vulnerable to the whim and fancy, political ideal and expedient imperative of our leaders, ever to be predictable. Maybe so. But such a view is defeatist. There are many people out there, in various walks of life, who feel improvements in educational policy and practice can derive from thoughtful reflection, experiment and good sense; the main hurdle being to sway the hearts and minds of the powers that be. Such people have a passion for education and hold strong views on how we should go about organizing our citizens' learning, young and old. This collection of essays allows a selection of these people to set aside the shackles of what is 'now' and to counsel, persuade and even harangue us about the challenges for education in the next twenty years.

Twenty-odd essays, then, for the twenty-first century; that is what we offer here. Our essayists were invited to write about what they think is important for education in the next two decades. That, bar a few editorial niceties, was the only restriction. Some of them will therefore assail you, the reader, as if from a soap-box, others will promote the cause of a sectional interest. Still others will provoke you to think just how things will be, using evidence from current trends to fuel their argument. Some will be simply informative, some will set out a wish-list and some will issue dire warnings. All of them, we hope, will interest you and challenge you to reflect upon what they have said.

The pieces are all short and quick to read. It occurred to us that perhaps we should try and gather the contributions in groups but in the end we liked the interesting medley of focus and tone that the relatively random arrangement produces. If groupings are helpful to you, the following brief may suffice.

The main group of contributions covers, as might be expected, issues of curriculum, assessment, learning and teaching. Carmel Gallagher acknowledges the assessment tail that wags the curriculum dog but predicts a re-alignment over time to a new era in which our education system energetically and unreservedly addresses the whole-person in the learning experience. Norman Richardson turns to spirituality and sees a future in which religious education curricula, learning and teaching move away from 'separateness' to something that flourishes through an "... exploration, movement, risk and the challenging of boundaries".

A number of contributors have focused on the importance of dealing with the emotional intelligence of pupils by rethinking the nature of children's learning environments. In this vein, Sally Montgomery argues the benefits of increasing experiential learning, hoping for a future in which practical engagement will make a major contribution to re-kindling motivation and enjoyment in learning. John Clarke's piece takes heart from recent innovative partnerships between schools, local authorities and parents, in creating 'dyslexia-friendly' schools, to project a time when we will have a greater understanding of children who learn 'differently', and in so doing we will prevent the differences giving rise to learning difficulties. As we move into the 21st century, Ruth Leitch challenges us to look back at some of the ways in which children have been victimized during the last century and to reconsider how we might learn from and support children thereby ensuring these

patterns are not unwittingly reproduced but replaced by more constructive adult-child relationships.

Environmental education gets a wish list in the form of a set of 2020 recommendations from Colette Murphy while Brian Gaffney pulls no punches in setting out the health education agenda, for which schools will retain a pivotal role. While many of the contributors identify aspects of the role of computers in learning in 2020, John Anderson addresses it full-on. Using examples of existing, albeit exceptional, classroom teaching innovations, he argues that the future is more or less here, if we know how to find it and if we can free learners and teachers to get on with it.

The design and objectives of schooling form another sub-grouping with, for example, John D'Arcy projecting a variety of outcomes from current employment and social trends. Kirsten Tait, our youngest contributor by several decades!, gives a pupil-eye view of the organization of the school day, term and year which confirms that teachers, parents and politicians should never be considered the sole arbiters of wisdom in education, to the exclusion of the learners themselves. No reflection on Northern Ireland education would be complete without something on segregated and integrated education and Brian Lambkin puts a novel spin on how we might in the future look at school and cultural transitions and differences. Tom Hesketh and Chris Bowring-Carr propose a new form of leadership training for the complexities of schooling today, and the inexorable increase in complexity that tomorrow promises, while Bernard Cullen marshals a formidable argument that the concept of subsidiarity must in the future take its rightful place in shaping how schools should be governed and the responsibilities they must undertake.

Globalization and Europe cannot be far away from an education agenda and several thought-provoking pieces are included. Mike Smith, for example, projects some pros and cons for Northern Ireland, its community and schools, from the adoption of English as the *lingua franca* of business and commerce in the European Union, and argues that we must make more efforts to get our young people to experience Europe through exchange programmes. Gordon Topping identifies the huge changes in society, environment and technology and predicts a continuing renaissance in our thinking, informed by a global community which technology has brought within everyone's immediate grasp. Joseph Martin focuses on the impact of such technology on the delivery of education itself, citing examples which lead him to conclude that whatever we might envisage for the education of tomorrow, technologically-supported globalization will undoubtedly extend the boundaries in ways that cannot yet be anticipated.

Three contributors elected to look back on the next two decades by jumping forward and giving us an insight to what they think will be in place in education. Tony Gallagher looks back on the revolution whose seeds were sown in the 1990s, and perhaps earlier, and updates us on the progress which has been made in recognizing the importance of lifelong learning and of schools (a term abandoned by then) as community resources. Fiche Scorsese, who admits to being a 'blow-in' from continental Europe, reports on the wholesale slaughter of sacred cows by 2020 while Martin Bowen moves between future and present to predict changes, some of which he finds positive (a freeing up of the Key Stage 4 curriculum to allow more overtly vocational subjects, for example) and some of which he finds negative (for example, the chopping and changing of the curriculum by the then constituted Council for Curriculum and Investment Applications!).

A final group of contributors focuses on specific and relatively new areas of development 'today' that will likely have major impact on education 'tomorrow'. Laura Lundy's compelling argument of the inevitable increase in legislation and litigation, which will impact on all aspects of education, predicts an increasing burden for all education institutions. Most notable in the short to medium-term will be the better protection for schools and teachers through a clearer definition of their responsibilities. Tom McMullan's piece offers a brief yet comprehensive insight into how government is planning to spend in excess of £300 million in delivering the technological infrastructure and support system necessary to underpin the computer-related developments which feature in the essays of quite a few of the contributors.

Last but not least, Paul Nolan picks up the Information Society baton, which this technological infrastructure will serve, and runs with it; or, more strictly speaking, walks with it in a 'mooch' along several hundred yards of Belfast pavement. Using the past to project the future he moves from the late 18th century Linenhall Library along Royal Avenue to the late 19th century Central Library, musing on the bewilderingly array of knowledge and learning that the Internet offers today. Has lifelong-learning found its ultimate vehicle?

A final word

Education as we know it today is sometimes based on an imperfect accommodation of different values, philosophies and priorities and sometimes it is based on the predominance of one set of values or priorities or one, often simplistic philosophy (for example 'naming and shaming' for school improvement). The various contributions in the pages that follow highlight some of the existing conflicts, for example: formal early years education ('in the basics') versus play-based early years provision; the pros and cons of religious education in schools; funds for the special educational needs of some versus the resourcing of education for all; segregated schooling versus integrated schooling; a common curriculum or a school-based adaptive curriculum; a fixed examination timetable versus continuous (computer-facilitated) monitoring etc. Unless you are a dogmatist, in one camp or the other, none of these or other equally contentious 'choice' conflicts (one hardly mentioned in these pages, for example, is the hugely contentious and complex issue of selection) is simple; indeed their resolution is as perplexing as it is complex. Nevertheless we must seek resolution for them through reflection, research evidence and consensus. We must avoid Sylvia Plath's warning against indecision and consequent loss of opportunity:

I saw my life branching out before me like the green fig tree in the story. From the tip of every branch, like a fat purple fig, a wonderful future beckoned and winked. ... I saw myself sitting in the crotch of this fig-tree, starving to death, just because I couldn't make up my mind which of the figs I would choose. I wanted each and every one of them, but choosing one meant losing all the rest, and, as I sat there, unable to decide, the figs began to wrinkle and go black, and, one by one, they plopped to the ground at my feet.

We hope that in some small way, this collection of essays will help us all to examine the 'figs' we want to have ripened in 2020; to pick the options that are best for our children's and our own lifelong learning.

Tiggers Like Everything!

Experiential Learning in 2020

Sally Montgomery

In 2020, the experience in the classroom will have shifted from learning facts to obtaining skills including the ability to analyse facts, think, ask questions (to obtain information from the World Wide Web), be creative, and problem solve and acquire social skills. The individual will be assessed in relation to their emotional intelligence to assist their development and to lead to an understanding of who they are, their strengths and the style of learning that they will most respond to. The classroom will expand to embrace virtual worlds for exploration, will value and provide opportunities for pupils to gain real experiences and the opportunities to see, touch and do the 'genuine thing'. We will have to put into practice our realization that education must be moulded to the individual, rather than moulding the individual to education.

Key elements of the Vision are the need to motivate individuals and build their self confidence and self esteem. They must be equipped with knowledge, creativity and the thinking and social skills that will assist them to cope with a world of rapid social and economic change. They must be provided with experiences that will assist their self-discovery and the development of their unique abilities.

When Tigger arrived in Pooh's house unannounced in the middle of the night, he was asked politely to stay for breakfast. When asked whether Tiggers liked honey for breakfast he cheerfully replied: "Tiggers like everything!" But on tasting, Tigger realized he did not like honey or thistles. He then tried all the food until he discovered he liked Roo's strengthening medicine.

How do we know what we are good at, what interests us, or what kind of person we are, unless we have opportunities to try things out through educational, working, cultural and social experiences? Just as Tigger learnt his favourite food was not the same as Pooh's or Piglet's, we learn that society is made up of individuals and that our intelligence is more complex than IQ alone. Having opportunities to experience 'things' directly is a very powerful educational tool and one which will be increasingly important in our ever more closeted and frequently simulated world.

Waking on the morning of 3rd March 2000, I listened to the news that thousands of Japanese queued overnight to buy the Sony Play Station 2. Sony hoped to sell one million units over a single weekend. In Northern Ireland children still play football in the street, but there may be many more glued to their Dreamcast, Nintendo or, in time, Playstation 2. Such technologies are only likely to increase as a proportion of play time in 2020. Should we be worried? At least the child is safe, the parent knows where they are and they do not have to entertain them. Is this good enough or, as parents and carers, are we over anxious? Certainly, in cities we probably are too protective.

In 1999, a BBC study of 1300 young people in the UK, found that that they were fed up with being watched over and felt over-supervised by parents and teachers. This is echoed in *Bright Futures*, a report from the Mental Health Foundation (see Charles Handy 'The New Alchemists'). The latter states that: "As a result of parental fear there appears to have been a dramatic decrease in both the range of unaccompanied activities undertaken by children and the amount of interaction between children and adults". Why should this matter to our child's educational experience in 2020? Handy interviewed people he called

'alchemists' or people who created something from nothing including art, inventions, business or social change. He found that their 'talents' did not stem from traditional 'intelligence' but were, in part, sown early in life through key childhood experiences and role models. Many who were not traditionally 'intelligent' found their education restrictive and formal, as it did not value their differences, but many were influenced and inspired by great teachers.

While Handy acknowledged that not everyone needs to be an alchemist, we need to grow more such people as it is they who assist in developing and changing our world. He advocated that following Goleman's and Gardner's seminal work on 'emotional intelligence', we must always acknowledge an individual child's talents or skills. Because talents are not always apparent at an early age, people of all ages need to be exposed to an ever wider range of experiences and other people, so that they can establish what they are good at and learn from others. Hence, the closeted child constantly playing computer games or accessing the world only through the World Wide Web, is at a disadvantage unless they are only required to solve problems in a two dimensional world. The latter would seem unlikely given the diversity of employment and social opportunities likely to be faced by people in the 21st century. Handy advocates more gap years, more travel and more adventure. The effect is illustrated by seeing the genuine article. I was really surprised at seeing the real Mona Lisa so familiar from reproductions in books and magazines. The real thing is so small!

In the leisure industry, the latest concept is 'the experience economy'. The leisure industry provides holidays to gain direct experience, such as swimming with dolphins or climbing the Himalayas. These activity based holidays are now a lucrative part of the economy of many regions and countries. Disney Corporation moved into education inventing the now over-used concept of 'edutainment' emphasizing the dollar value of learning while having fun. Similarly, catering for the 'cultural tourist' is also a major facet of the holiday business as people see places on television or World Wide Web and wish to go and see the exotic or the unique at first hand.

All Our Futures: Creativity, Culture and Education, a stimulating report from the National Advisory Committee on Creative and Cultural Education (1999), calls for partnerships between cultural institutions and schools to ensure that the creative skills of children are recognized, and that they have opportunities to develop their creative abilities and have *direct* experience of creative and cultural events and objects. As I moved from formal (classroom) education into informal education in a museum, my focus changed from teaching knowledge to pass exams and subjected related skills, to focus on objects such as a fossil or a flint tool. The lessons revolved around skills in observation, analysis and interpretation of objects. "Is it real?" was the most frequently asked question when a young person handled an object. Real experiences, whether children are touching a real object, going to a play, listening to a real orchestra, and, especially experiences outside their normal domain, can be very powerful. On one occasion in June, after a handling session with year one pupils, their teacher ran back with a young boy. The teacher excitedly said: "He has a question!" The child wished to know the name of a crystal. After explaining it was quartz, I asked for an explanation from the teacher for her apparent urgency. It transpired that this was the first question the boy had asked all year!

Howard Gardner, a Harvard psychologist, in *All Our Futures: Creativity, Culture and Education*, says: "Each child has a spark in him/her. It is the responsibility of the people and institutions around each child to find what would ignite that spark." Our understanding of how many ways there are to 'ignite the spark' has been influenced by the work of Howard Gardner himself. He rejected the crude test of IQ and, in 1983, proposed a model of 'multiple intelligence' and a constructivist approach to learning. These included numerical and verbal abilities but also two personal varieties: knowing one's inner self and social adeptness. These two varieties were developed further by Peter Salovey and John Mayer.

However, it was Daniel Goleman's adaptation that popularized the theory in his book *Emotional Intelligence*. Goleman divided emotional intelligence into personal and social

competence. Personal competence includes self-awareness (knowing one's internal states, preferences, resources and intuitions), self-regulation (managing one's internal states, impulses and resources) and motivation (emotional tendencies that guide or facilitate reaching goals). Goleman's sequel: *Working with Emotional Intelligence* claimed that emotional intelligence matters twice as much as cognitive abilities such as IQ and technical abilities, and that these crucial skills could be learnt. Such abilities are vital to cope with change.

There has also been much research and discussion on thinking-as-a-skill. This 'skill' will be essential to the pupil in 2020. Carol McGuinness, a psychology lecturer at Queen's University, states in the 1999 DfEE Research Report: *From Thinking Skills to Thinking Classrooms*, that "... focusing on thinking skills in the classroom is important because it supports active cognitive processing which makes for better learning. Thus, pupils are equipped to search out meaning and impose structure; to deal systematically, yet flexibly, with novel problems and situations; to adopt a critical attitude to information and argument; and to communicate effectively."

The skills pupils in 2020 will need to progress and survive in an advanced knowledge economy, will be not what is known but how to assess critically information acquired, for example, from the Internet, and how to apply knowledge in new ways. Already, the Internet is used by young people as an encyclopaedia-like resource. Their attitude is very trusting as all the information is in written form, often illustrated attractively and presented without equivocation. Frequently material on the web is unedited, un-reviewed and contentious. It might be completely untrue. Yet, because it is written and looks authoritative, the unwary and inexperienced use it unquestioningly. With such rapid advances in information technology, learners in 2020, need the skills to assess risk and be able to understand issues of global importance. For example, the debate about genetically modified foods is complex yet it is frequently portrayed sensationally and arguments are emotionally loaded. Such topics and our ability to discuss them rationally and assess the risks of new technologies objectively, will be even more important in 2020.

Assessments of key skills, namely, communication, application of numerical concepts, use of technology, working with others, problem solving, and improving one's own learning and performance, are being introduced as part of sixth form work from September 2000. Many teachers and students believe these skills can be acquired and assessed through the normal teaching and assessment of academic subjects. Carol McGuinness, however, showed that problem solving, one of the elements of thinking skills, can only be improved if it is made 'explicit' i.e. the pupil must aware that they are using a particular skill.

Susan Greenfield, Director of the Royal Institution proposed that: "We need to demand from our education system, and from the curriculum that underpins it, pupils that do not pursue facts for their own sake, but make use of the facts for the purposes of understanding." In 2020, when access to knowledge through the World Wide Web is likely to be much easier than today, education must provide the training in cognitive skills lacking in such IT resources. It will be easy, for example, to find out about the Periodic Table using the Internet from a neat palm top computer or a mobile phone with wireless Internet access. But this is of no use to a pupil unless they have the skills to understand and interpret this knowledge.

However, school education has been dominated for many years by the importance of teaching facts. From 1990 onwards, all pupils have been taught the same type of facts since the introduction of a common curriculum. While this establishes a good base to ensure that everyone has, theoretically, an equal chance of receiving a broad and balanced education, it was also established to ensure ease of assessment of pupils and comparison of standards between schools using published league tables. All of these changes were promoted as providing information about a child's progress and providing parents with information about schools to help them to decide where to send their children. Yet, all educational strategists have succeeded in doing is wrapping education in

jargon that has confused and alienated parents and has given rise to the suspicion that education is less student centred and more geared towards success in the league tables.

We publicly assess pupils' knowledge of facts on a more or less biannual basis. In Northern Ireland, in year seven, many pupils are assessed twice, once for the 11+ and then again for Key Stage 2. With the introduction of AS and A2 levels in the sixth form, pupils will have three consecutive years of public exams from GCSE. Teachers in post-primary schools are already reluctant to let pupils out for extra-curricular activities (other than sport) because of the pressures of trying to cover the prescribed examination courses. The lower sixth year traditionally had more time for enrichment programmes. These have now been squeezed out to provide more time for four AS level subjects. We are in danger of squeezing out all the experiences which make each school, each teacher and each pupil's education unique and enjoyable. The casualty is likely to be motivation. Like Disney Corporation, we must value having fun.

Despite the continued success of many teachers in motivating and inspiring their pupils, for too many pupils, learning has ceased to be enjoyable. If young people are to develop and sustain an appetite for learning that will continue into their adult years, giving meaning to Life-long Learning, it is important to reassert the emphasis on enjoyment without sacrificing excellence or rigour (DENI Strategic Plan 2000 – 2006). We must encourage teachers who teach for understanding through direct experiences wherever possible. I applaud teachers like a colleague in Omagh who takes her pupils to Alton Towers to 'experience physics'. We must champion such an approach to making available time if we are to avoid the obvious dangers of a curriculum designed for zombies and taught by automatons.

In 2020, all pupils should have diverse opportunities from cultural experiences to being taught thinking, or from developing social skills to exposure to facts, ideas and theories of all kinds. These are more than part of 'life's rich pageant'. They are vital to our ability to enhance and sustain economic development, and essential to address the expected and unexpected challenges to our health and wealth in the 21st century. They are not add-ons or luxuries but must be part of everyone's education if we seek to realize each individual's potential and enjoyment in learning, and to maximize their motivation to discover their own abilities and talents.

Clyde Fessier from Harley Davison puts this succinctly as: "If you do what you've always done, you get what you always got!" If we believe researchers, educationalists and managers, we must seek a vibrant, skill and experience-rich, pupil-centred education. We must broaden achievement and redefine failure. We must start enhancing the experience in the classroom now.

"He's taken my medicine!" sang Roo happily, thinking it was a tremendous joke. Then Tigger looked at the ceiling, and closed his eyes, and his tongue went round and round his chops, in case he had left any outside, and a peaceful smile came over his face as he said: "So that's what Tiggers like!"

2020 Vision

Carmel Gallagher

It is generally recognized that education systems are deeply conservative and resistant to change. Northern Ireland's education system is no exception. Over the last twenty years we may appear to have experienced an educational revolution, for example in terms of statutory curriculum and assessment, local management of schools and a raft of other initiatives and interventions but, deep down, schools remain much the same as they ever were. Northern Ireland retains its selective system. Learning is organized more than ever before in 19th century subject boxes. Teachers are expected to teach and children are expected to learn in much the same way as they have always done. We measure children's success in ever more frequent pencil and paper tests which focus on what is easily assessable. Why should we expect any great change in the next twenty years?

The one overarching reason why I think education in Northern Ireland might be a lot different twenty years from now is because, for the first time, I believe we are really beginning to think for ourselves. For fifty years and more we have been largely aping 'big brother'. In the last three or four years, however, there are many signs that we are developing both the will and the capacity to pursue local solutions that better address local needs and thereby, hopefully, allow our young people and our economy to better compete in a demanding global market.

A range of initiatives are already pointing the way: Strategy 2010 and the 'Leapfrog' initiative emphasize the fundamental link between the economy, education and the technological revolution. The Curriculum Review and the Education Technology Strategy emphasize the need for 21st Century relevance not only in curriculum content and learning methodology but also in assessment. The 'Sure Start' Programme and the debate about 'Selection' emphasize equality of opportunity for all. The collective impact of these endeavours may amount, if not to a revolution, at least to a fairly radical evolution in the education system in Northern Ireland over the next twenty years towards a system that is more distinctively and dynamically responsive to its own agenda. My 2020 vision, therefore, rests on the successful implementation of many of the good ideas that are visible today. If we can manage to carry these through in a 'joined-up' way, we will have achieved a great deal.

Other contributors will address the crucial need for the re-structuring of post-primary education to better serve the talents of all young people. In this short piece I intend to focus on four areas that I consider are also fundamental to enabling all young people to develop those talents and have them appropriately recognized. They relate the need for a stronger interface between research and educational policy and, in particular, to giving children:

- ⊙ the right start;
- ⊙ a more relevant and motivating curriculum;
- ⊙ enhanced opportunities to learn and think for themselves; and
- ⊙ appropriate assessment that recognizes all their talents.

The right start

We all want the best start for our young children. In Northern Ireland we consider ourselves lucky to be able to provide an educational place for every child from the age of four. The recent expansion of nursery provision aims to provide places for the majority of children from the age of three. But is the education we are providing for this age group

developmentally appropriate? Evidence is now emerging that we could in fact be damaging our children by trying to teach many of them to read and write formally before they are developmentally ready. For example the percentage of 10 and 11 year olds with reading difficulties in central European systems is typically 3-8%, depending on the number of second language immigrants involved in the sample compared with 30-40% in Britain and America. This comparative disadvantage is apparent by the end of primary school. Various studies suggest that the key to this success is what was happening in these successful countries *before* primary school.

In all of the countries leading the league tables a pre-school kindergarten cycle is considered an essential pre-requisite to *prepare children for education*. The purpose of the pre-school cycle is to compress socio-economic differences between children so that it can pass on to primary schools homogeneous groups of children who can be taught together. The model concentrates first on teaching children to regulate their emotions, attention span and social behaviour. Such skills are considered a necessary pre-requisite for any effective intellectual development. Once these skills are in place kindergartens begin training memory and building up oral language skills and through these, conceptual and mathematical understanding as the basis for later learning. A lot of emphasis is given to gross and fine motor skills (the latter as a preparation for writing). This focused attention on the intellectual development is done almost entirely through play in an atmosphere in which no child is allowed to feel that they are failing. The intention is to bring all children forward without their ever knowing they were behind.

In Northern Ireland, as elsewhere in the UK and indeed US, the core belief if early years education is that children should move at their own, individual pace. In effect this means facilitating the faster progress of the more privileged and able and encouraging children to begin formal literacy and numeracy as soon as possible. It is considered inevitable that more privileged or more able children will move ahead of their less advantaged peers. Once behind, children stay behind.

By contrast, in Europe advantaged children do not move ahead and away from other children in a 'linear' direction, but are stretched 'laterally' as role models, leaders and even teachers of weaker children. In doing so they acquire social, leadership and intellectual skills - clearly visible to parents - which will serve them well in later life. When all the children begin formal reading and writing at the age of 6 or 7 they arrive at the same level of competence of many British children within 10-12 weeks, with little or no evidence of gender gaps, dyslexia or educational difficulties.

The role of the early environment on subsequent intellectual development, educational attainment and wider social performance has now been repeatedly demonstrated in longitudinal studies. Now other evidence from brain research reinforces the contention that intellect is largely determined by environment and particularly by the care and stimulus children receive in the first three/four years of life. Recent research suggests that a child's ability to control his or her emotions, attend to others and interact with them is an essential pre-requisite for normal intellectual development. The new evidence has led academics to argue for:

- ⊙ early intervention policies which seek to compress differences between children before entry to formal education
- ⊙ pre-school programmes which concentrate on developing emotional control, the ability to pay attention and to interact with others as a necessary pre-requisite for subsequent cognitive development
- ⊙ pre-school programmes which then move on to conceptual/linguistic competencies essential for the easy mastery of formal literacy and numeracy;
- ⊙ school programmes which carry forward pre-school intervention programmes and provide long term support for disadvantaged children.

Long before 2020, I would like to see all 3-6 year old children being given this 'sure start', which builds on the evidence. The Curriculum Review will seek to develop an early years

education system which explicitly aims to build children's attention span, visual and aural memory, linguistic confidence and fine motor skills through highly sophisticated directed play before they begin to learn formally how to read and write. Alongside this there will be ample opportunity to develop children's creativity and imagination, autonomy and independence through self directed activities. It would also be wonderful to be able to add a Northern Ireland breakthrough in research to the body of evidence from elsewhere. Martin McPhillip's research at Queen's, into the impact of retained primary reflexes upon cognitive development, will I hope become more widely known and accepted so that every school in Northern Ireland can have a teacher trained in primary movement techniques to help address the widespread problem of learning difficulties. I have little doubt that it may take twenty years for this convincing evidence about good early years' practice to find acceptability in all schools. Parents and partners will have to be convinced - no easy task.

A more relevant and motivating curriculum

Moving on to the older age group, the Northern Ireland Curriculum Cohort study has, since 1996, been gathering the perceptions of almost 3,000 young people about what they learn at school. It reveals that young people consider that what they learn at school is relevant only to school and passing exams and is not really relevant and applicable to their current or future lives. Young people see curriculum in terms of disjointed subject boxes which have little or no connection. They have no concept of 'the big picture' or meta-learning, although they are perceptive enough to recognize the benefit of being able to transfer learning from one area to another. They see assessment as jumping hurdles to pass exams, simply to get to the next stage in the educational hierarchy. Their disillusionment increases over time. As they get older they cease to expect schooling to have real-life relevance, other than in an academic sense. The research conclusion is that many young people 'comply with the curriculum without being engaged or challenged by it'. They do not even expect it to be enjoyable but they really would like it to be relevant. Whether or not we agree with the validity of these findings, the perceptions are real. Teachers are not convincing young people of the relevance and potential application of what they are learning. Nor have pupils any clear idea of the joined-up picture. They see few if any linkages across the domains and have no conception of over-arching and transferable skills.

The current review of the Northern Ireland Curriculum and its assessment arrangements is attempting to respond to this plea for relevance. It asks teachers to think beyond the narrow confines of their subjects towards the higher order purposes of education, such as how does my subject contribute to young people's long term decisions and choices and how does it help develop young people's capacity

- ⊙ as **individuals**, to live happy, fulfilled and purposeful lives;
- ⊙ to take their place in **society** as thoughtful, informed and caring citizens;
- ⊙ for employability in a rapidly changing global **economy**;
- ⊙ to make responsible economic choices and decisions in terms of their impact upon the global welfare of others and the sustainability of the world's resources and **environment**?

It is a tough job. Teachers are trained as teachers of subjects first and foremost. Their subject loyalties run deep. Many of them remain convinced that the maintenance of traditional subject components is crucial. Few are ready to countenance any radical change to the status quo, for fear of losing status or curriculum time. There is resistance to anything new, such as citizenship or employability, for the same sorts of territorial reasons. The battle will not be won overnight.

Given the strength of the subject lobby the more radical question of whether subjects should remain at all is, as yet, a bridge too far. Whether it remains so up to 2020 is yet to be seen. But what is not a bridge too far, is making progress towards the language of relevance and illustrating how subject skills and content are transferable from one context

to another and to life situations. Some people have misinterpreted this plea for relevance as utilitarianism - as 'dumbing down the curriculum'. Not so. It is a matter of ratcheting up the relevance of the curriculum in order to convince the customers that the product is worth buying: "How is what I am teaching you today going to be relevant to the choices and decisions you will make tomorrow?" We also need to cultivate young people's own 'meta' awareness about what they are supposed to be learning by giving them a 'curriculum map' to see how the 'big picture' is meant to fit together. From an informed perspective young people themselves may then be in a better position to self-select their courses and pathways on the basis of interest and motivation.

By 2020 I imagine that subjects will still be with us but the array post 14 will have expanded significantly to include a more vocationally-oriented selection. This orientation may help challenge some of the 'sacred cows'. In particular I would like to see some currently dominant subjects such as mathematics, science, languages and religious education, **earn** their place in the educational scheme of things, not as of right, but through proven relevance and application. We need to question: whether the breadth of current mathematics is appropriate for all; whether languages would be better to be intensively taught at primary schools; and whether the current science curriculum is 'old' in conceptual thinking and needs to become more technologically and environmentally focused.

Long before 2020 I would like to think we will have put in place slimmer, more focused and exciting programmes of study, which clearly contribute to the higher level objectives of the curriculum. I would hope there will be much greater clarity about how each area of the curriculum helps to develop agreed skills, attitudes and values. I would like to see curriculum contexts being negotiated with young people, in terms of their relevance and application to their future lives. In particular I would like to see young people being allowed to engage with more of the issues that matter to them, the political situation, their potential to influence a better future through engagement with democracy, their own personal problems and concerns, the major environmental and ethical issues of the day and the future sustainability of the planet.

Enhanced opportunities to learn and think for themselves

In terms of where and how young people learn, some would describe the regime in many of our schools as being about control and conformity rather than independence and individuality. Classrooms are often characterized more by teaching than by learning; by information transmission rather than discovery; by pursuing right answers and known solutions than by exploring alternatives; more by content than by process; more by passivity rather than engagement. Yet the pace of change is such that real success now requires creativity, innovation, enterprise, alternative thinking, adaptability, resilience and responsibility.

Again the Curriculum Review aims to put these skills at the heart of the curriculum, in particular the need for young people to learn explicitly about, and develop, a range of thinking skills and to be able to set their own goals and improve their own learning and performance. The only way, however, that this rhetoric will become reality is through a revolution in methodology, when teachers step back from the domination of teaching to allow better learning to take place. That revolution is on our doorstep.

The technological revolution, which has brought us the personal computer and the Internet, is in the process of making a quantum leap forward. In the immediate future digitization and broad band developments will allow the combining of digital television, the Internet, and the computer so that text, graphics and television pictures can be brought together on a TV or computer screen into one interactive learning tool. And because it is interactive it can be used as a classroom tool - with individual students or the whole class - or for learning at home. Not only will e-learning be highly motivating for young people but, it will also develop the vital skills that students will need to compete and survive in the multi-media world of tomorrow.

The fundamental change that digital learning will bring is simple. With this technology, learning can be delivered straight into homes as a matter of course, either through computers or digital television. This is the beginning of direct delivery of all forms of learning to homes. Educational services - both free and fee-paying - will become available to everyone. This has the potential to change profoundly not only the way the curriculum is taught in schools, but perhaps to threaten the very existence of schools. The provision of educational services will no longer be the exclusive preserve of schools. Parents willing to pay for educational success will purchase e-learning directly for their children. Children not motivated by schools will have greater potential to persuade parents of the benefits of learning from home. It is probably too simplistic to say that teachers will be reduced to the role of mentors, or that schools will disappear. The future, as always, will be more complex than that but the implications for schools as they currently exist are profound. But if schools, like subjects, have to earn their place in the affections of young people, I would hope that by 2020 they will be more democratic institutions where young people themselves will be given greater responsibility and influence.

Appropriate assessment that recognizes all their talents

Finally, in terms of what is valued in the education process, there is no doubt that external assessment, more than anything else, exerts a strong influence on what is perceived as relevant and important. This is borne out in the pupil cohort study. While young people enjoy a range of subjects which tend to be practical in orientation, the subjects which they consider relevant (and often not enjoyable) are those which are examined in high stakes assessment. The culture of testing has always been deeply embedded in Northern Ireland. In recent years the added culture of accountability, school performance tables and targets has increased the profile and apparent value of what is currently assessed. In addition, the competition between schools arising from the publication of results has tended to increase the distrust in relation to teacher assessment, leading to a preference for more pencil and paper tests marked externally.

I have come reluctantly to the conclusion that attempts at curriculum reform are, therefore, largely futile unless accompanied by matching assessment reform. The theory of constraints leads to the inevitable conclusion that assessment is either the engine of curriculum reform or the principal impediment to its implementation. A complete culture change needs to be brought about in terms of society's perception of what is really important. There is a need to review the current aims, purposes and methods of assessment and to ask fundamental questions about: how and what we assess; when we assess and for what purpose. We also need to develop alternative modes and styles of assessment that will allow for: the more effective assessment of a range of thinking skills; the demonstration of creativity and entrepreneurial skills; the opportunity to contribute to group problem-solving and team-work; and the assessment of inter-personal negotiating and conflict management skills.

By 2020 I will like to see us concerned more with 'assessment for learning' that informs the teaching and learning process, as opposed to assessment solely for results. I would hope that we will have made a few breakthroughs in terms of assessing a broader range of intelligences, skills and competences as opposed to assessing only that which is easily assessable. I envisage that the same technological revolution which is bringing us 'e-learning' will also bring us imaginative breakthroughs in relevant assessment, on-line.

Finally, I hope by 2020, and perhaps long before, that we will have succeeded in harnessing the significant resources currently expended by the broader community in recognizing and rewarding the good practice of schools, for example: industry, environment and citizenship-related activities and competitions.

Conclusion

Northern Ireland is a small place with a very good, if conservative, educational reputation. We have been in democratic deficit for thirty years and are now waking up to the possibilities that self-government can bring. We are developing the self-confidence to

articulate our own vision and respond to our own identified needs. There is tremendous potential, because of our size, to shape a dynamic way forward in education and to develop leading edge solutions to age-old educational challenges. Giving young people the right start; a more relevant and motivating curriculum; enhanced opportunities to learn and think for themselves; and appropriate assessment that recognizes all their talents will go a long way. If we grasp these opportunities wholeheartedly I hope that, in twenty years time, my vision of schools and education in 2020 will be shown to be far too limited! I live in hope.

Health Education: Challenges Now and for the Future

Brian Gaffney

When people are asked about health they usually talk about quality of life, security and happiness. Health is a product of so many aspects of our lives, our relationships with families and friends especially, our interactions with our community, the impact of our social circumstances, the effects of our physical environment and factors ranging from transport to arts and leisure, unemployment to discrimination. Over 70% of what determines our health is outside the control of the health services, so to improve health we need to address broader economic, cultural and environmental conditions. This is why improving and promoting health through education, now and in the future, becomes an issue for the whole of society, it crosses every sectoral boundary and is affected by every public policy. If we are serious about setting in place the building blocks for a prosperous productive society in Northern Ireland then we must look to the issues which affect our society's health as a starting point for action. Many agencies must assume their responsibilities for this action but foremost among the forces for change is effective education.

The fundamental aspects of society associated with good health at a personal and at community level are social cohesion, poverty and inequality. These three factors are inextricably linked with each other and with good health. The way to tackle these issues and the most effective way to improve health in Northern Ireland is through economic and social regeneration.

There are good examples of countries, where good health and prosperity go hand in hand, such as Sweden or Japan, and analysis shows this does not happen by accident. Good health requires investment in people and systems, in products and programmes. This investment must occur through government, by the private and public sectors, and in collaboration with schools, the community and voluntary organizations and programmes. We also know that when such co-operative efforts collapse, as in Eastern Europe, the first social indicators to plummet are those concerned with health.

Social cohesion

The World Health Organization holds that the first requirements for health are peace and security. We know in Northern Ireland however that it is not just the absence of conflict that is important. Instead a community has to have trust – trust within communities and between people and their institutions of government. This trust is expressed in many ways for instance by how much and how often we have contact with others in the community including our neighbours and by participation in and membership of community and voluntary groups. This is known as 'social cohesion' and it is well established that such social cohesion improves well-being. In wartime Britain, a greater sense of solidarity and social cohesion was accompanied by dramatic improvements in life expectancy. Citizens living in regions characterized by high levels of social cohesion are more likely to trust their fellow citizens and to value solidarity, equality and mutual tolerance. At a more individual level this effect is also evident, socially isolated people die at two to three times the rate of 'well connected' people. Research has shown that where entire communities lack social connections there can be disastrous effects on health – breakdown of one community in the USA saw a sharp increase in deaths from coronary disease. Politicians should take note that community cohesiveness and citizens' participation in community organizations is also a good predictor of local government performance. High levels of civic trust are associated with highly functioning governments.

At a global level the issue of poverty is becoming intense with around 1.3 billion people living in absolute poverty – existing on less than \$1 per day. This is despite the overall growth of the world economy, which doubled in the 25 years before 1998. The world faces a growing scarcity of renewable resources from deforestation, soil erosion, water depletion, declining fish stocks, and lost biodiversity. The poor, of course, will be hit hardest by these problems.

Inequality

But even among rich nations there are many examples of growing socio-economic inequalities in health over the past 20 years. Health inequalities among those at the different ends of the income scale in Britain have just been reported by a Government committee as the worst ever. All these ill effects are evident in Northern Ireland. The life expectancy gap between professional and unskilled workers is now almost ten years for men and more than six years for women. Men and women of working age in the groups are more than twice as likely to die prematurely as those in the highest group; people living in some poorer areas of Northern Ireland have long-term sickness three or more times greater than people living in other areas; - the three main causes of death in Northern Ireland, heart disease, strokes and cancers, hit the poorest in our society first and worst.

One particularly worrying aspect of poor health is the development of risk factors and behaviours among children and young people. Research in one part of Northern Ireland indicates that children as young as seven have high levels of tooth decay, are at high risk from accidental injury and some have tried cigarettes and alcohol. Our eleven – fifteen year olds are increasingly at risk from smoking, alcohol, illicit drugs and unprotected sex. But even among these age groups are stark differences between children from poor and those from more affluent families.

Of particular concern is the fact that so many children fail to reach their physical and mental potential through poverty. Children and young people have now overtaken pensioners as the largest age group living in poverty – an estimated one in three are in families below the poverty line. This has direct effects on the health of our children, young people and their families. Poverty among young people is associated with accidents, respiratory problems, depression, suicide, and drug misuse. Children from poor families are five times more likely to die in accidents. Young people living in poverty are four times as likely to die before the age of 20. Suicide rates among those aged 15-24 are almost three times higher in the lowest income groups than in the other groups combined. And young people living in poverty are five times more likely to be diagnosed as having schizophrenia. Deprivation in childhood increases risk of mortality from coronary heart disease and respiratory disease in adulthood. We may therefore be developing health problems and inequalities in adults that will be very evident in 2020. Unless a concerted effort, through education programmes involving school and community action, begins now to address the issues.

Poverty

Poverty has many dimensions including lack of education, inadequate housing, social exclusion, unemployment, environmental degradation, and low income. Each of these diminishes opportunity, limits choices, undermines hope and threatens health.

Ill-health and poverty are mutually reinforcing and can generate a vicious cycle of deterioration and suffering. Ill-health contributes directly to reduced productivity and sometimes to loss of employment. When it affects the main earner in poor families it has severe implications for economically dependent family members.

Poverty and its links with poor health have become even more complex with research that shows that it is not just the absolute standard of living that affects health but there is evidence that the size of the difference in income between groups also has an impact on

population health. This distribution of income is now known to be related not only to overall death rates but also to infant mortality and deaths from heart disease and cancer.

Poorer families not only have to grapple with the problems arising from their own lack of income, they also have to deal with the effects of living in communities which are usually located in poor physical environments and may lack amenities such as public transport.

Inadequate access to essential health services may compound the situation. Areas with the highest death and sickness rates tend to have fewer and poorer quality services; and social groups with the poorest health have poorer access to these services. Research in Scotland showed that there are often double or triple the number of doctors, dentists and opticians in richer neighbourhoods than in the more deprived ones. The same is true for access to health-promoting opportunities, for example the availability of recreation facilities, such as parks and leisure centres, and access to food shops. Lower than expected numbers of referrals have been found for diagnostic services and surgery for lower socio-economic groups in relation to their levels of sickness.

Other aspects of social life which affect health differ between income groups. For instance most of the women in the most deprived areas have their first child before the age of 25 years. There are differences in the consumption of fried food and fresh fruit, a greater proportion of disadvantaged people drink more than the recommended amount of alcohol and take up smoking and continue smoking in greater proportions. It is no wonder that a higher proportion of disadvantaged people report a greater number of stressful factors in their lives.

Such inequality also has effects on society at large, such as increased rates of crime and violence, reduced industrial productivity and economic growth, and effects the proper functioning of representative democracy.

Social systems which tolerate inequality may encourage hostility, suspicion and distrust and thus limit the possibilities of social integration. Wide income differences tend to coexist with under investment in people reflected in lower educational achievement and lower literacy rates. Schools can only address these issues with adequate support and resourcing. Poorly educated and under skilled citizens means that society that will ultimately pay the cost through low productivity and slow economic growth. Low levels of civic trust spill over into lack of trust and confidence in government. Votes of the poor are already underrepresented at election time.

The extent of inequality in society is often a consequence of explicit policies and public choice. Reducing income inequality offers the prospect of greater social cohesiveness and better population health yet even a modest reduction in inequality could have an important impact on population health.

Regeneration is about environmental and social renewal and involving people. Regeneration is integral to health. Economic regeneration involves developing retaining expanding and relocating businesses large and small; it includes all socio-economic groups and political groups. It means investing public money in projects which are self sustaining, in education programmes that help people to help themselves. Small and medium size businesses are known to be the driving force behind economic development but we must invest in training local people in deprived areas so they can get the local jobs created by regeneration schemes. There needs to be affordable childcare facilities especially for those on low income and for one parent families. Improvements in the environment are integral to the success of regeneration programmes. People must feel safe in their environments and communities must feel good about where they live. Businesses will only move to those areas that have good transport networks, schools and good leisure facilities. Inclusive partnerships specially learning from the active voluntary and community groups are vital to develop a shared vision of what is possible. Economic and environmental programmes can and should be measured by indicators such as

- ⊙ Do people enjoy better health?

- ⊙ Do people feel safer?
- ⊙ Have education standards improved?
- ⊙ Are care services better for the elderly?

These are the kind of things which can measure the long term success of social education and intervention programmes. Economic indicators usually focus on single indicators such as income or jobs whereas health indicators have many dimensions. That is why we can and should use improvement in the public's health as the most important measure of the success or failure of this and future government action. By 2020 schools and the education system as a whole will have played a major role in assuring the success or indeed the failure of promoting public health and well-being.

Segregation, Integration and the Third Way

On Seeing School Children as Immigrants, Citizens, Emigrants

Brian Lambkin

Visions of the future are best communicated by using metaphors, like Charles Handy's 'empty overcoat'; and one of the most effective ways of getting to the heart of a 'vision statement' is to examine its main metaphor. This essay examines some of the metaphors that dominate our current vision of education and finds one of the most difficult challenges facing us to be that of finding a 'third way' between the opposing extremes of segregation and integration – religious, academic and otherwise. It offers an insight from the field of migration studies and proposes a renewed vision of education based on the metaphor of 'migration'. It argues that our vision for education in the twenty-first century - whether integrated or segregated education – may be clearer when we come to see schoolchildren as 'immigrants, citizens, and emigrants'.

Seeing schoolchildren as migrants and basing a vision of education on 'migration' ought not to seem strange. We have already accepted 'migration' as a key metaphor in information technology. When we replace an old computer system, we don't just 'move' data from the old 'platform' to the new 'platform'; we 'migrate' it. And we do so with good reason. Data is being 'moved' all the time around our current 'platform', but moving it away from the old platform to a new one has such an air of finality about it that we sense the process is like 'leaving home'. So we speak of it as 'migration'. Our computer 'platform' equates to a 'state' or 'country', and, if we think of 'migrating the data' in human terms, then the particular type of migration involved is 'emigration' - leaving one 'state' to live more or less permanently in another. Schoolchildren, like data, are moving and being moved all the time yet, when it comes to their moving schools, talk of their 'emigrating' sounds strange, even repellent. In Northern Ireland we don't 'migrate' children from primary to secondary school, we 'transfer' them. Why should 'migrate' sound strange in this context?

Migration and education ought not to sound strange together because the 'education is migration' metaphor is closely related to the familiar 'education is a journey' metaphor. This in turn is a variant of the 'life is a journey' metaphor, which is one of the most fundamental at work in our culture (Lakoff and Johnson, 1978). All sorts of organizations commonly have vision documents with titles like 'Mapping the Road to Change'. The basic agreement of the Good Friday Agreement is to go on a journey: to leave 'the tragedies of the past' behind; to make 'a new beginning' and 'a fresh start'; and 'to strive in every practical way *towards* reconciliation and rapprochement'. In other words its foundation metaphor is 'journey' from the past, seen as the violent 'old world', to the future, seen as a peaceful 'new world'. And the particular type of journey involved has been elaborated variously as one by 'train' (Blair), 'car' (Trimble) and 'ship' (Hume).

Similarly, 'journey' is used as a main metaphor in vision statements about education, especially in relation to the management of change. Fullan (1992), for example, speaks of 'the journey of learning' and makes a fundamental distinction between 'moving schools', which are successfully 'underway', and 'stuck schools', which are not. Closer to home, the vision of education reform espoused by Sir Brian Mawhinney, which eventually resulted in the Education Reform (Northern Ireland) Order 1989, was introduced by a consultation document - *Proposals for Reform* (March 1988). This described the reform programme as 'A Way Forward'; and the report on the consultation was called *The Way Forward* (October 1988). More recently we have Department of Education documents such as

Learning for Tomorrow's World (1999) and *Towards a Culture of Tolerance* (1999). Their common idea is of movement from one 'state' of affairs to another, with the implication that because our current 'state' is less than satisfactory we must, in a word, 'emigrate'.

However, as managers of change know, many find thinking about the future like this unattractive. Thinking about emigration, Europeans classically picture it as the mass movements of the nineteenth century from the 'Old World' of Europe to the 'New World' of North America and associate it with failure – the failure of Europe to provide adequately for its children. It is remembered mainly as a response to poverty, lack of opportunity and persecution in the 'Old World'. In Ireland, emigration is still classically pictured as 'exile' in the wake of the Great Famine (Miller 1985). With such a painful historical legacy we are not exactly predisposed to think through our 'journey' to 'tomorrow's world' as 'emigration'. But consider how the character of European migration has been changing radically since the Second World War with access to mass air travel, growth towards European union and acceptance of the principle of free movement of labour. Migration is in the process of becoming normal in the sense that people increasingly expect to move 'home' between countries (or over significant distances within countries) in the course of their lives. However, we continue to think of the social norm as being 'settled', as opposed to being 'on the move'. As long as we do, 'travellers' will be regarded as abnormal or eccentric and migration as 'traumatic'.

For the 'settled' citizen each 'move' is traumatic in that it involves the pulling up and putting down of roots, which is usually a painful and slow process. Taking leave of the home place is often described as a 'wrench' and becoming 'accepted' in the new place may take more than a generation. The migrant coping strategy of regarding the 'move' as only temporary and promising relatives and friends to return soon is often a self-deception until the option of return is finally ruled out. Moves thought to be temporary have a tendency to become permanent and many lives have been 'wasted' by delay in putting down roots in the new place as long as there was expectation was of a return 'home' or a further move, onwards or upwards. Clearly, we need better strategies for a world where migration is increasingly normal. The challenge for education is to identify those strategies and equip our children to use them. Learning from what we know of human migration from the discipline of migration studies is a start.

On the surface, globalization looks like it might take care of things for us simply by progressively minimizing the trauma of migration. As everywhere comes to look more and more like everywhere else there is less strangeness for migrants to encounter, and affordable telecommunications and air travel give access to frequent virtual and actual return 'home'. In a world where no one is further way from 'home' than a twenty-four hour journey, the Irish custom of 'waking' the emigrant is dead. Just to recall that depth of grief is a reminder of the quantum shift that has taken place. Yet we are still a long way from stress-free emigration and easy 'belonging' in a series of new homes. Notoriously, emigration creates a crisis of identity by placing the migrant in a 'third space' between two worlds. Put simply, there are two main strategies for immigrants: segregation and integration. In segregation mode immigrants keep (or are kept) apart as far as possible from the receiving host 'culture' and reproduce their 'old culture' in the new place. Typically, they live and work together, continuing to eat and dress traditionally, speak their native language and practise their religion. They tend to marry each other and send their children to school together in the expectation that they in turn will marry each other and maintain the 'old' way of life into the next generation. In this way a 'Little' Germany or Italy or Ireland is created.

In integration mode immigrants 'mix' as thoroughly as possible in the host 'culture', adopting its characteristic language, dress, diet, language, religion and so on. Whereas in segregation mode the 'old' identity is retained and the 'new' identity is resisted (or withheld), in integration mode the 'old' identity is discarded and the 'new' identity assumed. Between the starkness of these extremes a possible 'third way' has come to be seen as more socially desirable. This is for the immigrant to 'modulate' or move more or less frequently between the modes of segregation and integration, so having 'the best of both worlds'. The 'new' identity is assumed without entirely discarding the 'old' identity

and the result is a 'hyphenated' or hybrid identity. Thus, immigrants and their descendants think of themselves, and are thought of, as 'Irish-Americans' as distinct from 'Irish exiles' or simply 'Americans' etc.

This third 'hyphenated' way of identity building was not always regarded as desirable. United States policy in the nineteenth century was to regard the immigrant as an 'ancestrally rootless person', a *tabula rasa* on which to write American identity (Morgan 1996). The state was not concerned about the 'old' identities of the 'huddled masses' that it welcomed. The basic metaphor of the state's vision for its citizens was that of the 'melting pot'. In return for US citizenship the state required of its immigrants allegiance to the flag and commitment to learn English. The hyphenated identity was regarded as an intermediate stage on the journey to full American identity. Over several generations it was expected that the distinctive features of 'old world' identities would gradually disappear or melt away, as do 'impurities' in the melting pot. But things have not worked out as anticipated. In *Beyond the Melting Pot*, Glazer and Moynihan (1963) famously pointed to the persistence of ethnic identities and urged the need to rethink the approach to hyphenated American identities. As a result the US school curriculum accommodates a wide range of ethnic studies, including, for example, in several states, an Irish famine curriculum (www.nde.state.ne.us/SS/irish_famine.html). The trend towards ethnically-based studies has been evident too in British and Irish education but the full implications of the persistence of 'old' identities in schools have yet to be worked out. Part of the challenge presented by globalization as it irons out 'large' differences between countries, like different currencies, is for us to safeguard and cherish diversity and individuality by becoming increasingly skilful at developing and celebrating the 'small' differences that constitute the distinctiveness of life in our local areas. We can see this when we apply the 'migration' metaphor to the process of 'transfer' between primary and secondary school in Northern Ireland.

If schools are different 'countries' or 'states', each has its own immigration (admissions) policy and each makes special requirements of its new 'citizens'. They are expected to identify with the school name, badge and heritage; follow its dress code; behave according to its particular rules; and participate as fully as possible in its unique 'culture'. The 'immigrants' gradually attain full 'citizenship' en route to the most senior class. No sooner have they done so than they start to be prepared for 'emigration' to the 'promised land' of secondary education. A special assisted emigration (Transfer) procedure selects the emigrants for different destinations and they are dispersed. Sometimes efforts are made to keep in touch with the 'old country'. Occasionally attempts are made to re-unite its diaspora, perhaps on a special anniversary, but for the most part the break is final.

Secondary schools now have highly developed 'immigration' (admission and induction) policies. The potential 'trauma' of the 'move' is generally recognized and great effort goes into minimizing it. The 'immigrants' are encouraged to 'settle in' and feel 'at home' as smoothly and swiftly as possible. How they 'establish' new friendships and how they are 'accepted' by the older 'citizens' is closely monitored. A notable feature of recent years has been the introduction of 'formal' procedures such as special orientation days and the use of older pupils as 'mentors'. These largely replace the unofficial and occasionally brutal customs by which immigrants were traditionally 'welcomed'. Altogether the 'rite of passage' has become more 'civilized' but its development has a way to go. The metaphor at the heart of secondary school immigration policy still tends to be that of the 'melting pot'. Emphasis is on making a 'fresh start', giving allegiance to the 'new country' and learning its ways. A short period of 'hyphenated' identity, during which the immigrant may feel 'homesick' for teachers and friends in the 'old country' is permitted, but not indefinitely. While this may be sensible, it falls short of best practice. What is lacking is a sustained interest in the 'old' identities of the Year 8 immigrants which are bound up with the localities of their primary schools. Ironically, this is true of both the segregated and integrated school sectors, each of which criticizes the other for functioning as 'melting pots' of religious and political identity.

In the move from primary to secondary school a major learning opportunity is being missed for promoting a culture of tolerance by teaching about cultural diversity through

education for mutual understanding, cultural heritage and citizenship education. If the diversity of 10, 20 or 50 different primary school identities in the intake is recognized at all, it tends to be regarded as a problem rather than as an opportunity and solved by treating each pupil as 'rootless', a *tabula rasa*. The argument here is that, *for all pupils*, the 'move' from primary to secondary school is of a similar kind, if not order, as 'emigration' from one country to another. Schools therefore ought to reflect best migration practice in relation to the strategies which they encourage pupils to adopt.

Optimum migration takes place when the migrant is able to find a 'third way': to 'modulate' appropriately between the modes of integration and segregation. Of course migrants need to be made to feel 'at home' by the receiving culture, but they also need to have particular knowledge, skills and attitudes in order to make themselves 'at home' with their 'new' identity, without losing their 'old' identity. Identity modulation is not new. It takes place on occasion, for example, in co-educational schools when boys and girls are grouped separately, and in integrated schools when Catholics, Protestants and others are grouped separately. The point is that there is a benefit to all in developing the skill of identity modulation. Those able to negotiate 'a third way' are more likely to emigrate successfully and graduate with little or no trauma from immigrant to full citizen in the new place.

Characteristic of the effective citizen is a strong 'sense of place'. Feeling 'at home' is connected with knowing how 'home' works and how it fits into the overall framework of things. This has been recognized in the need for citizenship education which aims, as the Crick Report puts it: "... to introduce pupils to society and its constituent elements, and show how they, as individuals, relate to the whole" (2.7). The classic moment in literature of a schoolchild sensing the connectedness of the world and his 'place' in it is the 'epiphany' in Joyce's *Portrait of the Artist as a Young Man* when Stephen Dedalus turns to the flyleaf of his geography textbook and reads what he had written there:

Stephen Dedalus
Class of Elements
Clongowes Wood College
Sallins
County Kildare
Ireland
Europe
The World
The Universe

Clongowes College must have been doing something right, even without citizenship education on the curriculum. But we cannot reasonably expect all pupils to be as bright and intuitive as the young Stephen Dedalus. If our challenge as educators is to bring all pupils to that kind of vision of the world and that sense of their unique place in it, we do need to move citizenship education from the 'hidden' to the 'revealed' curriculum. The nature of citizenship is revealed by what we expect of 'naturalized' immigrants. As 'citizens' of the school we already expect pupils to participate actively in the school community. The thrust of citizenship education is to extend that active participation to the local and community and connect it with the wider world. Again as the Crick Report recognizes:

... the school and its local community provide a perfect context for pupils to examine issues and events and to become involved in active, participatory activities and experiences where the emphasis is on learning through action. This can help pupils to make the connection between learning and acting locally to thinking globally (6.3.2).

Given that the local-global 'sense of place' and 'belonging' is so important to identity building and effective citizenship, all schools have a special responsibility as a main focus of learning in their local area. The special civic service that pupils have to perform for their local community is to study it; to collect and record information about it; to monitor and evaluate its development by comparing it with other places, generation on generation;

and to make the results of that study accessible. For optimum benefit what we need is the multi-disciplinary study of our local communities within a co-ordinated, systematic and sustainable framework that will facilitate comparative studies, locally, regionally, nationally and internationally. In a word, we need 'joined-up' local studies to enable pupils as citizens to make sense of the place where they are by relating it to where they have 'moved' from, and where they are likely to 'move' to. This is what the Northern Ireland Civic Atlas Project is about.

Moving the 'migration' metaphor to the centre of our thinking about education need not entail seeing schools as 'transit camps'. Rather it should lead us to see them as both 'civilized' and 'civilizing' places, in which pupils arrive as immigrants, act as citizens, achieve something of the Joycean 'sense of place', and prepare to become emigrants and citizens elsewhere. The insight from migration studies is that it is possible to go 'beyond the melting pot' and negotiate a 'third way' to citizenship between the opposing modes of segregation and integration. For schoolchildren this may happen when we have a more coherent vision of their lifelong education 'journey' and learn to see them in all their 'moves' - not just from primary to secondary - as 'immigrants, citizens and emigrants'.

The School Day, Term and Year

Kirsten Tait

In my essay, which is about the nature and structure of the school day, I have tried to put forward how I think school life in secondary schools all over Northern Ireland will be like in the year 2020. I think that in two decades time, a computer or laptop will have become as commonplace as a television is today. For this reason, I have based my essay around this idea.

I am an eleven-year-old primary school pupil looking forward to attending my local grammar school in September. My sixteen-year-old sister is already at the school and I have studied her school timetable to see what changes I would make. At present a typical school day is divided into nine periods of thirty-five minute lessons. I have not altered how long the day is, but the length of the periods inside it.

Instead of having nine periods containing one short thirty-five minute break and forty-five minutes for lunch I would change it to *three* periods, one break and one lunch. The day would consist of having a two hour period of one lesson, a break of twenty minutes, another lesson lasting two hours, a one hour break for lunch and then a shorter period lasting an hour to finish off the day. I think this would be a better way to spread out the timetable because it gives the pupils a longer time to work on one subject rather than having only thirty-five minutes (or just over an hour in the case of a double period subject) before going on to the next lesson. For example, a student may have Maths in the morning, English after the break and then PE, Library, Art or extra study time after lunch. Even though the pupil may only have each subject once a week, because of the way the timetable is set out, the actual class would be more intensive because the period is longer. Although two hours may seem very long for a lesson, when you are on a computer the time appears to pass quicker. Also, work layout and mistakes can be easily altered so pupils' work should always be well presented. As all class work would be done on computers, as I have gone into below, the students would be able to review class work at home.

By the year 2020 each classroom, in every school throughout the country would have a laptop built into the desks. Each laptop in the classroom would be connected to the teacher's computer. This way the teacher could 'keep an eye' on what the students were working on or provide extra help for anyone who needed coaching in a particular area of the subject. The teacher would need a computer instead of a laptop because she/he would have to be able to connect with each individual student and provide an Internet service to the pupils. I would anticipate that in two decades time there would be a web site for the National Curriculum.

Just as we have books for our different classes at present, the students would have a disk for each subject instead of having a laptop to carry from classroom to classroom. Each subject would have a disk of its own. On this disk the students would open a folder for different categories. For example, in History a disk may contain folders for work on Vikings and another for work on World War II. There would also be a folder for homework. When homework is set the pupils would have to return their disk for example three days later. This would give the teacher time to mark the homework before handing the disk back at the start of the next lesson. The homework could then be copied and transferred into the relevant folder of the disk.

Children who are sick would be able to use their home computer to link up with the students in the classroom (if they are well enough). It would be easier for students who are absent to catch up with work they have missed as it could be copied onto a disk by a teacher, or a friend, for them to review at home or during an extra study period.

The school would have a back-up system for all work done by the students. In the event of a disk being mislaid or wiped the work can be retrieved.

At present pupils are graded mostly on their exam work. In the year 2020 I hope that back-up tapes can be used to verify the standard of work done throughout the year in the cases of students who do not do as well in their examinations as expected.

During the school year a number of educational and recreational trips are taken. It would be hard to substitute a visit to an ice rink or a pantomime but a very interesting suggestion for substituting educational trips would be to have Virtual Reality 'outings'. Instead of the students going to the zoo, the zoo would 'come to them'. Animals that are not allowed to be kept in zoos would be able to be 'seen'. In the Virtual Reality museums pupils would be able to 'touch' objects they would otherwise not have been allowed to if they were to visit a museum. In Virtual Reality castles they would be able to become part of historic battles and would be able to 'dig up' bones in Virtual Reality archaeological sites from around the world. This would mean more time enjoying the visit instead of travelling on a bus.

My idea is that the school uniform would be a lot more casual than it is today. In warmer weather girls would be able to wear skirts and tee shirts. The tee shirts would have the school logo and motto printed on the chest pocket. For boys, shorts would be an option, and they would also be able to wear tee shirts with the motto and logo. In cold weather the girls would be allowed to wear trousers and blouses, also carrying the school logo and motto on the chest pocket. Boys, however, could wear trousers and shirts, with the school motto and logo emblazoned on the pocket. A school tie would be worn with the blouse or shirt and in very cold weather the students could also wear a school sweatshirt. I would replace the school blazer with a more casual, practical jacket, which could be worn summer or winter.

In Northern Ireland the summer holiday break lasts for eight weeks. Another idea would be to shorten the summer holiday period to six weeks. The other two weeks could be taken during the school terms either as individual days or as weeklong breaks to divide winter and spring terms. Nowadays a lot of families take winter or spring holidays so this would mean the parents of pupils would have more times when the children are off school to go on holiday.

These are my ideas for secondary-level schooling in the year 2020.

Classroom 2000

Private/Public Partnership in Action

Tom McMullan

The Classroom 2000 Project is a public/private partnership being undertaken by the Northern Ireland Education Service; one of the largest and most exciting ventures of its kind currently underway in the UK. It brings together two thrusts of Labour government policy. The first is the commitment to the National Grid for Learning (NGfL), and all that it can deliver to the UK education system. The second is the search for new ways of working effectively in partnership with the private sector.

The context

Technology and infrastructure do not solve the basic problems in the use of information and communications technology (ICT) in education; they are a necessary, rather than a sufficient, element of the Education Technology Strategy of the Department of Education. The strategy consists of four strands:

- ⊙ The Northern Ireland Network for Education (NINE) is a regional version of the UK's National Grid for Learning website. Through the 'portal', teachers access a range of web-based resources, which relate to the Northern Ireland curriculum.
- ⊙ The use of communication and information technologies depends on the curricular context within which teachers are expected to work. A review of the Northern Ireland curriculum, which recognizes that the use of ICT is a generic skill facilitating teaching and learning in all subjects, is currently underway.
- ⊙ Teacher education in ICT is being progressed both through the work of the Curriculum Advisory and Support Services (CASS) of the education and library boards and the New Opportunities Fund (NOF), financed from the UK National Lottery. NOF's initiative provides training in the pedagogy of ICT for all teachers in the UK, including those in Northern Ireland.
- ⊙ Finally, Classroom 2000, described in detail below, focuses on the procurement of suitable education technology infrastructure for our schools.

The scale

Classroom 2000 aims to provide an integrated education technology infrastructure for almost 1300 schools in Northern Ireland. This infrastructure will include hardware, content, including software and on-line resources, local area networking, wide area networking and technical support. It will also embrace the existing CLASS Project, which has already provided an extensive computerized educational administration service to some 900 schools.

To appreciate what is being undertaken it is worth looking back at the state of ICT provision in schools. The evidence comes from a 1997 survey by KPMG on behalf of the Department of Education for Northern Ireland and the Education Technology Strategy Management Group.

The KPMG survey indicated that:

- ⊙ more than 70% of computers in schools were described as 'old';

- the vast majority of computing equipment in schools was unable to support modern multimedia;
- only 1% of primary schools in Northern Ireland had networks that could be used to support ICT use in the curriculum;
- when teachers were asked what were the main constraints in moving forward with effective use of ICT, the two items top of the list were access to appropriate technology provision, and the financial constraints under which they were operating.

The analysis

Some fundamental thinking about how we invest in education technology in our schools, and how we fund such investments, was clearly needed. This involved looking closely at the current supply model of ICT resources to schools in the UK, and how the model worked.

An analysis was undertaken from the perspective of a typical school of 800 pupils and what would happen over a three, four, or five-year period, in relation to its acquisition of ICT resources. In order to bring about curriculum change, and to obtain the real benefits in teaching and learning which ICT can deliver, a pupil-computer ratio of 8:1 was considered a necessary minimum, particularly for the secondary sector.

This would mean the school operating an infrastructure of some 100 computers, a very sizeable venture, and comparable to any small to medium-sized enterprise. Depending on the level of investment, the school might acquire such an infrastructure over a three to five-year period, in some cases significantly longer. This time lapse would create very significant problems of integration and technical support for the school because, while education technology changes relatively quickly, its application in schools is a much slower process.

Over a typical three to five-year period, processors would change from the equivalent of an Intel 386 to a Pentium II. The school would be trying to use computers with processor speeds ranging from, perhaps, 18-20 megahertz to over 400 megahertz.

In the same three to five-year period there would be very significant developments in multimedia capability, which the bulk of the older machines would be incapable of exploiting. There would also be very significant changes in networking and desktop architectures, and there would be a range of different desktop operating systems. There would be the growth of Internet, intranet and extranet technologies, and there would be the issue of security and integrity against virus attacks and the hacking of computer systems.

Given the speed and extent of change in education technology, the only word to describe the traditional supply model is '*broken*'. It fails to address the needs of schools and the needs of education today. If one were to seek an analogy in the Health Service, it would be the equivalent of the St John's Ambulance Brigade doing brain surgery, with a surgeon sending them out the parts. In essence, the supply industry is providing schools with the 'kit of parts' and most schools, ably assisted by their local education authority, are left with the difficult and challenging task of system integration.

This is a supply model that will not deliver the curricular benefits that government wishes to see. It diverts the schools' attention from what they should do to improve the quality of teaching and learning, to what they must do to make the 'plumbing' work.

The solution

The response to NGfL policy, by the Department of Education, is to provide an ICT infrastructure to schools through a managed service, under a public/private partnership (PPP). The Classroom 2000 Project Board, chaired by Joseph Martin, Chief Executive of

the Western Education and Library Board, works closely with the Education Technology Strategy Management Group, chaired by Gordon Topping, the Chief Executive of the North Eastern Education and Library Board, and responsible for coordinating all four strands of the ICT policy.

Although the focus of Classroom 2000 is on the technology and content delivery mechanism, it is an integral and necessary part to enable the other three, integrated strands to be delivered.

Public/private partnership (PPP)

What do we mean by a public/private partnership? What is it, and what are its benefits? What are the time-scales for its provision? According to the UK Government's Treasury Guidelines, a PPP is a means of harnessing private sector management, innovation, expertise and resources in the provision of capital assets for the public sector. While the Classroom 2000 Project and the Northern Ireland education system have accepted the concept of public/private partnerships, it will be for the private sector to demonstrate what it can bring to this relationship. It will be for private sector bidders to demonstrate that they have the management capabilities; that they can deliver the innovation and the expertise; and that they can provide the resources necessary to deliver, install and support the infrastructure that schools require.

The role of the PPP service providers will be to design, build, finance and operate the ICT infrastructure and, when it is in place, to provide continuing technical support to schools. The public education sector is, in effect, purchasing services, which deliver access to education technology resources for schools. We want ICT to become a commodity product, so that the teacher focuses on its use, rather than on its purchase and operation.

The scope

The scope of the Classroom 2000 project is great. It must provide an integrated education technology infrastructure for some 1300 schools in Northern Ireland. It must integrate existing administrative systems, such as pupil attendance returns, finance and curriculum planning, which are already in schools. There are at present some 25 educational 'business and administrative' functions carried out in this way in 900 schools. Classroom 2000 will involve extending the present CLASS project to a further 400 schools currently not included. The solution must also deliver to teachers and pupils a range of ICT resources, which are appropriate for their teaching and learning needs. Finally, and importantly, we wish to use that infrastructure to extend the professional development of teachers as a whole.

When we think of an *integrated* NGfL infrastructure, it must include all three of these dimensions.

To achieve the target ratios (of 1:8 in secondary schools, 1:12.5 in primary schools and 1:5 in special schools) the project will have to oversee the installation of some 40,000 personal computers to a tight time-scale. It will have to install local area networks in 1,300 schools, and connect them all to a wide area network. Connectivity services will have to be provided for 20,000 teachers and some 335,000 pupils, some 10% of whom may be simultaneous users of the system. Finally, the project will have to implement an initial deployment of services to all schools in Northern Ireland by September 2002, with full rollout by early 2004.

Although we are embracing the public/private partnership, we have set a demanding challenge for the private sector in terms of what we expect them, as the ICT professionals, to deliver to our education service.

A managed service

What do we mean by a managed service? We want services for schools that include system design; the provision of hardware and software; and connectivity services. We want services that provide the necessary technical support; a help-desk; system maintenance and, importantly, 'technology refreshment'.

Since the technology industry itself continues to generate the need to replace computers regularly, we think that some of the risk of technology refreshment should rest with the service providers; at the moment all of the risk rests with the school.

There is also a challenge for us to think regionally, or nationally, to achieve economies of scale that will help to address the issue of affordability for the education service.

Our approach on risk transfer is to leave each of the risks with the party best placed to manage the risk. We would not, for example, propose to transfer the risk of teachers not using the technology effectively, because the service provider has no control over that. However, the provider does have control over the network being designed effectively, to avoid it becoming obsolete prematurely. We will continue to examine carefully where risks sit best in the partnership.

We also want an ICT service for schools with predictable costs to the public sector. The hardware replacement cycle poses problems for those who plan government spending. One of the main thrusts of Classroom 2000 is to achieve a predictable cost base, so that government and schools know, year on year, what the service costs.

In the past, the public sector has been trying to second-guess the private sector. Predictions have often been based on limited disclosure of information, because of the commercial sensitivities. Now we want the private sector to concentrate on the provision of the infrastructure, and we want the public sector education service to concentrate on maximizing the educational opportunity.

Partnership in action

Public/private partnerships began under Major's Conservative government, and were based on outsourcing most of what the public sector does to the private sector. The current government has developed a more pragmatic approach, looking at the appropriate form of partnership for a particular deal or project. Partnerships can either be more distant and limited as, for example, when the private sector provides only the hardware to a project, or, as was expected to be the case with Classroom 2000, much closer, as the public and private sectors work together over the duration of a contract which may last for ten years. This approach could be delivered through one global private partner or by several working to coordinated contracts.

The procurement stage of Classroom 2000 began in the European Journal in November 1998, going through a pre-qualification stage in February 1999. During this stage potential service providers had advance notice of the statement of user requirement, prior to it becoming a formal tender document. Before getting into a public/private partnership, we wished to give industry an opportunity to talk about the vision, the scope, the boundaries and the strategy. Such a dialogue could lead to better value for money before a contractual commitment to a particular approach or provider. By the summer of 1999 a single large consortium became the sole bidder.

The consortium, Trilith, was an amalgam of Research Machines and ICL Ireland, which are two of the largest existing suppliers to the UK education technology marketplace. In addition to design discussions, over the period of the next 18 months intensive negotiations centred on the risks and commercial viability. For example, in order to make the investment needed to deliver the infrastructure, there was likely to be a funding gap of somewhere between £90-100 million over the first three years of the contract. It

presented a formidable challenge to get the balance right, between what funders see as a reasonable investment risk, and what the public sector sees as a necessary investment in innovation, which will take our schools forward into the use of new and emerging technologies. In the end, Trilith and the Classroom 2000 board were unable to agree terms and private/public partnership will now move forward on the basis of a set of coordinated sub-contracts.

Challenge and promise

Some would say it is easier to, and arguably 'safer', to give all 1300 schools the freedom to choose their own individual hardware solution. From the myriad of some 1300 solutions it could be guaranteed that some would be successful. The approach taken here is much more challenging. The project is considerably more at risk if the solution is wrong, but it has a higher probability that the answer will be the right one. Economies of scale and size, through equipping all schools at the same time, means that we might bring change to the entire education system, rather than seeking change through a multitude of individual actions.

Next, is the matter of the choice between 'leading edge' and 'bleeding edge' in terms of the sophistication of the technology with which schools are provided. On the one hand, there is a range of relatively safe technology options, which could be used to deliver the service. But, given the speed at which technology changes, there is a need to get the balance right and provide technology which has a reasonable 'shelf-life', is familiar to most teachers, and offers an appropriate environment for pupil ICT competence.

Finally, there is the issue of scale and scope. The infrastructure will have to be able to support a variety of educational uses ranging from administration, through teachers' professional development, to classroom applications for children in an entire school service. In terms of electronic messaging alone, to provide a third of a million pupils with a personal e-mail address would mean that the Northern Ireland education system will need an e-mail capability over twice the size of that used worldwide by the Boeing Corporation!

For all these reasons, and in the light of the inadequacies of the old supply system, we feel that public/private partnerships are the only realistic way of providing the quality of ICT service needed by all the teachers and pupils in Northern Ireland, and their parents in the decades to come. Time will tell and by 2020 it is likely that we will look back on Classroom 2000 as the single most important development in supporting ICT in education, in these islands.

Milestones

Fiche Scorsese

It is not a particularly interesting year, as years go, but 2020 is as good a time as any to look back from our future. Even now, 40 years after I first 'blew in' to Northern Ireland, I still feel a bit wary of saying 'our' future, though I've played a full and active part in building it. But more of that later. For now, I'll begin with the educational events of the early 2000s.

The start of the millennium proved to be a rocky experience for all concerned. The fledgling 'peace' tottered on brink after brink, much to the satisfaction and seeming pleasure of some politicians of various hues. In the education world, with an eye cocked nervously to the political situation, the major issue of the moment was the selective system of transfer to secondary-level schools; a distinctly quaint concept as I look back on it now, but a matter of social, political and educational dynamite then. The newly constituted Northern Ireland Assembly tip-toed gingerly around the issues and after a patently pointless 'consultation' period, which inevitably gave the emptiest drums from both sides of the debate the opportunity to beat their loudest, the year 2002 saw the legislative skirmishes begin in earnest. The final proposal, the comprehensivization of schools, foundered rather predictably on a procedural impasse between the minister and the Assembly Education Committee. It was eventually filibustered out.

Even amid the turmoil, though, some positive dimensions were discernible in an otherwise repetitive and infertile debate. Notable among these were the emergence of common-interest alliances between diametrically opposed political foes across the Assembly floor. Something similar happened in the wider community, but the debates in the media and public rallies were if anything more acrimonious as the various shades of conviction, from muscular righteousness to aggressive humanism, promoted their own highly partisan solutions.

The debate to all accounts had the distinction, by virtue of its unique contentiousness, of engaging a wide range of the population in true reflection on the nature of schooling. After a protracted period of public hand-wringing and head-to-head confrontations, resolution was finally reached in the Spring of 2005. The passing of the Consensus in Schooling Order (2005) provided for a phased transformation of schools and institutes of further education (the 'Techs') to community schools for pupils in the compulsory education age range (6-16 years) or to post-16 institutions catering for academic and/or vocational studies, the mix or otherwise determined by the institutions themselves. The phasing and resourcing were generous, and on reflection necessary, with the statutory requirement that all institutions would complete their transition, including any mergers, by September 2015.

Inspection of the website archives for the newspapers of the time would give the impression that the selection turmoil had all but stifled the development opportunities that many thought would follow from the de-coupling of the country's educational policies from London diktat. But much was actually happening. Almost unnoticed a new curriculum slipped into place in 2004, raising the Key Stage 1 entry to six years of age and revolutionizing early years provision to "... free young children from the intimidation of formal education and to give back to them the wonder and fun of early childhood", as one prominent educationalist put it. End-of-key stage testing was also dropped in favour of continuous performance profiling of pupils, facilitated by computers of course, as moves were made to ensure that assessment was more closely engaged, in terms of timeliness and purpose, with learning.

One of the most important developments of that era, indeed in the opinion of many, *the* most important, was the Code of Professional Practice, refined over a period of several years and quietly published by the General Teaching Council in the slipstream of the Consensus in Schooling Order in 2005. With occasional tweaking here and there, to take account of changes in educational policy and practice, the Code has stood the test of time. More importantly it has underpinned the revolution in the culture of teaching that today represents a complete turnaround of the low morale and poor public perception of teaching as a career, which had ushered in the new millennium itself. Today's teachers appreciate the kudos of belonging to a profession which is widely and properly respected for its contribution to society, for its openness and integrity and its philosophy of continuous improvement through reflection.

Today's teachers also rest easy with the requirement to comply with the responsibilities and obligations demanded by the Code. Eminently sensible and achievable, the various obligations of the Code provide a professional *modus operandi*, which has eradicated the often inappropriate or unfair aspects of accountability that bedevilled the profession in the last two decades of the previous millennium. The old rhetoric of, for example, respecting the children and young people in their charge, providing interesting and enjoyable learning environments and of acting fairly and openly in assessment, have become the worked-at realities for almost every member of the profession, bolstered by a strong commitment and pride in their work. The loathsome few: the sneering, sanctimonious and judgemental 'mind-bullies', the cynical and work-shy staff room passengers, have all but disappeared as the Code has subtly but firmly provided a means of exposing the types of unprofessional behaviour that up to then could not be subjected to legal redress and had for so long proven impervious to managerial discipline. Such was the new-found confidence of the profession, that statutory annual evaluations of teaching *by pupils* came into operation in 2010 with barely a murmur of dissent, and certainly no detriment to anyone – except of course those whose career planning had led them into the wrong profession! The real impact of the Code has been felt in today's positive whole-school and classroom ambience, teachers' high levels of job satisfaction and collegiality, and young peoples' motivation and enjoyment in learning.

The success of the Code was undoubtedly complemented, if not directly supported, by developments in the law over the period 2004-2007. Arising from several high profile cases, these statutes clarified the responsibilities and rights of teachers and schools in the face of disruptive and violent pupils (and their parents) and offered greater protection from malicious accusations and vexatious litigation. Since then, the numbers of disruptive pupils have fallen dramatically as techniques for talking with (rather than at) disaffected children and young people have become more widespread and as the obligation to foster an ethos of enjoyment and relevance has pervaded the profession and schooling.

The Key Stage 4 curriculum, and some would argue the concept of a 'common' curriculum for all, was the first great casualty of the second decade. In 2011, the statutory programmes of study for Key Stage 4 were dissolved and replaced by a series of elective options, broadly designed to facilitate the ongoing preparations and, in some notable cases, already completed 'transformations' of new community schools and post-16 institutions. Schools and institutions preparing to transform were freed up, in this crucial transition area, to pursue developments which would underpin a community school or post-16 model. Within a year the fate of the GCSE was also sealed and it disappeared from the qualifications framework, its external assessment system replaced by a North American/Australian hybrid of school-based assessment and qualification. Universities struggled with the loss of the GCSE for a number of years. The grade drift in post-16 qualifications had escalated so much that distinctions or grade A's, as appropriate, had become the outcome norm for the majority of GNVQs, A-levels, AS levels etc. Universities had been using GCSEs to help them evaluate applicants' academic profiles to a greater depth than the narrow post-16 qualifications system allowed, and it took them a while to accommodate the new system. Some eight years on, the school-based system has now stabilized and the teething problems have long receded.

Reminiscent of the Year 2000 'Bug' scares, the year of the 'Great Transformation' (2015/2016) began with a period of anticipation and tension and ended with anti-climax and a great sense of relief. Long before September 2015, every aspect of the changeovers had been thoroughly evaluated using the experiences of the 20% of schools that had already braved the changes. As a result, it passed without any major glitches. In the main, the grammar schools adopted a 'sixth form' college model, in some cases with the local 'Tech,' while a small number merged with local non-selective schools to provide a community school/post-16 campus. A few grammar schools merged to ensure viability as post-16 providers and a couple opted to go independent, retaining a selective 11-18 years enrolment. Some of the larger secondary schools developed a formal relationship with local 'Techs' to enable a vocational post-16 provision to be made more accessible in their community. All in all, it was a relatively painless experience and, as a result of the generous time-frame, not one compulsory redundancy was experienced, much to the chagrin of some of the remaining opponents of the Order who continued to predict doom and gloom right up to the last moment of its implementation.

Since 2015, there has been really little of note to report. We have experienced a bedding in of school-based assessment and weathered the teething problems of the 'Great Transformation'. Computers rule the roost of course, with classes, pupils and teachers video-linked within schools and between schools, on a seamless and unexceptional basis. Pupils have had their own unique 'learning number' for some years now, as part of their personal identity code, and access to their learning history details is available to them at all times. Classroom-based conventional schooling, as I have described, is thriving even though pupils may 'engage' in individualized learning in so many ways, most notably through their home entertainment centres (remember TVs?). A caring and interested human being, a teacher, remains the most effective facilitator and tutor and looks set to do so for many years to come.

I mentioned at the beginning that 2020 is as good a year as any to look back from our future and the story I have told is one of trials and tribulations but is generally also one of triumphs, large and small. As I close I will recount one disappointment that still lingers for me and one small success from long ago.

My disappointment relates to the way some people treat others they consider are different to them. Despite legislation and a variety of education initiatives over the years, the system has signally failed to rid our society of the small number of xenophobes and bigots who continue to make the lives of many of our citizens difficult and frequently dangerous. I mentioned at the beginning that I am myself a 'blow-in' from a foreign parts but that I still felt I was able to reflect back on 'our' future. In common with all of my fellow citizens, be they Irish or British, European, African, Arab, Afro-Caribbean, Asian, Chinese, Traveller or whatever, I feel I have contributed fully to the society we have all created, and I have a right to be secure and happy in my own life. How the colour of my skin causes some people in our society to wish me harm never fails to amaze me, just as I never fail to be amazed when I read of unfair treatment of people because of their sex, their religion or lack of it, their sexual orientation, their physical or mental well-being or whatever difference they are pronounced guilty of. It was wrong and unnecessary in 2000 and regrettably, here in 2020, it is still wrong and unnecessary but just as prevalent. The challenge for education in helping us to live together without prejudice and injustice is still writ large.

I will finish with a memory, of a small but significant triumph from long ago. Almost 17 years ago, in December 2003, I was one of many spectators in a packed courtroom in Belfast High Court. I was there to hear one of our most prestigious schools attempt, through their lawyers, to prove that it was in the best interests of Chloe Swift, a 17 year old pupil, that she be suspended from school for wearing 'slacks'; slacks which by their own admission were compatible with the school's uniform. Telling young people today that at the turn of the millennium girls were not allowed to wear trousers in the vast majority of Northern Ireland's schools (or indeed that this applied also in many cases to female teachers, nurses and others) attracts a level of disbelief that we could ever have been so narrow-minded and ridiculous.

It would be ludicrous today and I tell them that many of us did find it ludicrous then, yet it took a young woman to go to the highest court in the land to have the issued rectified. Throughout the two days of the case, I did not hear one credible defence argument being offered. Justifications ranged from the bizarre (the Chair of the Board of Governors: "The girls look so much nicer in skirts") to the fatuous (the Principal: "If girls are allowed to wear trousers the school's tradition of excellence will be undermined"). The outcome was inevitable but I couldn't help wondering why anyone would go to such lengths to defend the indefensible. Then I realized that the school 'knew best', or rather they thought they did. I well remember Chloe's one-line response to the paparazzi questions afterwards. Paraphrasing the words of a 17th century dramatist she simply said: "Pensent-ils être saint et juste impunément?" The paparazzi looked perplexed and I smiled. That day the education system learnt one of its own lessons ... education empowers.

An Education for Europe

M L Smith

The European context in which Northern Ireland will be situated in 2020 will be both daunting and liberating. Daunting because of how Europe will have evolved structurally. The process of integration that started to gather speed in the 1990s with the Single Market and the beginnings of monetary and economic union will in some senses be complete. This will be so not because of the working through of a hidden agenda to create a monster superstate, but because of an agreement that the pursuit of at least these areas of integration offers the best profile for Europe to adapt to and survive in a competitive global environment. But greater integration will require institutional change. Here, the most likely scenario is that unification will have advanced to the point at which Europe's political and macroeconomic development will be managed by a core group of states. This core may consist simply of all, or the majority, of the original 'euro bloc' partners. It may be a new grouping that includes some of the applicant states from the East – Poland or Hungary – and possibly the UK. Or it may be a structure built on an entirely new set of relations in which twenty to thirty states agree to allow a variable proportion of what they regard to be their key interests to be decided by a central authority only indirectly linked to national or regional bodies.

How likely the UK is to be a founder member of such a core, shaping group is uncertain. On the evidence of our first 25 years of European Community membership such a commitment to more centralized structures may well remain too contentious. There is, then, the prospect of British governments once more playing 'catch-up' to policies largely decided elsewhere. But whatever the decision the UK takes about a deeper involvement in Europe – and the arguments around such a decision will reverberate both in national politics and certainly within the devolved assemblies – and assuming that we do not take the extraordinarily foolish decision to pull out of the European Union, the external reality of the development of a more cohesive Europe will not go away. Nor, therefore, will the fact that such a Europe will be a large and increasingly influential player in world terms.

What then is liberating in this scenario? More precisely, what could the possible benefits be for Northern Ireland from a development that appears to be going in a direction that would concentrate power rather than devolve and distribute it? And what issues do these probable developments pose for education?

Overall there is the fact that the European project (the term used to describe the linear movement toward an integrated Europe) is not as fixed in its outlines, nor as bureaucratic, as some advocates and opponents might wish to believe. The current debates about a 'two-speed' or even 'multi-speed' Europe indicate that many people at the heart of European policy now accept that the means of achieving this project will be flexible. Indeed, there is an increasing belief that the only worthwhile form in which to pursue integration is one that will be explicitly built on the principles of flexibility and difference. In practical terms what this is likely to mean is threefold. Firstly, that as the central institutions at the heart of the European Union's capacity to act in global terms grow stronger, they will require – if they are to do their job - to be balanced by new and greater forms of democratic representation and accountability. Secondly, that allegiance to a new European structure will be more certain the more it is able to link with local or regional interests. Thirdly, that the European Union and its constituent member states and regions will need to define in practice what exactly people are citizens of and what the exercise of citizenship actually means. These are extraordinary challenges. Not the least because they will for the first time tackle head-on the problem that integration has hitherto been (or has been perceived as being) a top-down process.

What is liberating in this is what also will be advantageous for Northern Ireland. To understand this we need to acknowledge briefly the negative discourse surrounding Europe that has emerged and its likely consequences. It is not just in the UK that there has been manifested a growing scepticism about the direction Europe is taking. In most member states there have been signs at least from the mid-1990s of disillusion with the distance between 'Brussels' (a shorthand for intrusive meddling and the erosion of difference) and ordinary people. Increasingly this has been formulated in populist language and, in some countries, corresponding political movements. To date, these expressions are characterized by two approaches. First, that European integration is a zero sum game in which people, regions or nations will be free only insofar as 'Brussels' is destroyed. Secondly, that integration only means loss of rights, traditions and identity.

The force of these views is undeniable; but their accuracy in predicting the end of integration is questionable. Their origin lies in a widespread distrust of the apparently unaccountable growth of large and impersonal structures. Already these issues have begun to shape both the global (witness the Seattle World Trade Organization and Prague protests against the power of global economic structures) and the European political landscape toward exploring new forms of governance. So far, therefore, from the future being either an onward march to a European superstate or to the almost complete dismantling of the present treaty-based Union, it is more reasonable to assume that the road to 2020 will be one on which the milestones will be pointing to a goal that seeks to reconcile both greater European unity and its expression through diversity.

It is in the relationship between these two tendencies that there lie the creative opportunities for Northern Ireland. These can be simply described under two broad headings: regional position and multiple identity. The first of these encompasses the obvious fact that Northern Ireland has, and will continue to have, an extraordinarily open regional potential. Its geographical location as a region of the British Isles is, in classic terms, peripheral. But this is modified by political arrangements that allow Northern Ireland to be formally recognized as at one and the same time a region in the European Union, a devolved part of the United Kingdom structure of governance and part of an island whose majority comes within a different jurisdiction. This regional fluidity is matched by that involving the second broad heading that distinguishes Northern Ireland: that of overlapping identities. Formal ascriptions of citizenship – British, Irish, European – co-exist or may, on occasions, be chosen separately. Each of these choices also carries within itself parallel decisions about identification with traditions, language and values. We should note that, rather than European integration limiting or destroying this diversity of identity it has provided the essential matrix in which such diversity has flourished. In this respect it is not accidental that the beginning of the slow exploration of new relations between the two parts of the island followed their respective membership of the European communities.

When we add to these distinctive features the prediction that Europe's evolution toward 2020 will involve a counterbalancing focus on the three issues of greater accountability, more linkage with sub-national interests and a re-evaluation of what citizenship means, then Northern Ireland has some key potential advantages. First, and perhaps most powerful among these, is the way that the citizenship of its people has begun to be redefined. In few other parts of Europe has the argument between a citizenship that is on the one hand inextricably bound to nationalism and ethnicity and, on the other, to enshrined rights been more vigorously contested or made more progress. The resulting formulations are not just valuable to other parts of Europe but provide a mechanism to allow an engagement with Europe on the many levels that will be required in the next two decades.

Second, is the opportunity given by the experience of devolution. Whether at the level of aiding self-identification of where Northern Ireland's best interests lie or in the practicalities of negotiating directly with the larger European institutional structure, devolved government offers a potential competitive advantage long enjoyed by the more dynamic regions in continental Europe. Nor should we ignore its value in providing an education in participative democracy capable of playing a role in different arenas of

representation, whether these are regional, within the nation state or in European assemblies.

Finally, and in many ways dependent on the first two, is the potential for economic advantage that follows from a flexible regional identity. Although the terms of global competition are likely to become more tough, regions in Europe will continue to benefit from the support given by membership of the Union and, especially, from the harmonization of rules. Within these, however, the ability of enterprise to use variable locational strategies will be crucial.

If, then, Northern Ireland has the potential to benefit from its future in the European Union what educational strategies will help maximize and ensure this? An obvious answer would be that Europe should be a part of what every student studies. Certainly, a knowledge of Europe's institutional structure, how it functions and the ways in which it is changing would seem to be desirable in the same way as the study of the development of Ireland or Britain and, especially, the history of local communities has long been part of the school syllabus. Such a focus might bring in discussion about the Irish or British contribution to a European culture, the nature and importance of linguistic diversity and an exploration of the common political and social values across Europe as well as their distinctive expression in these islands.

The rudiments of this kind of approach have, of course, been tried over a number of years in the form of European Studies and might well be reshaped as a core part of the general curriculum. However, there is no doubt that, despite enthusing some committed 'believers', European Studies has often been regarded as worthy to the point of dullness, a diversion from other more central topics and in danger of being little more than propaganda for the European Commission. (It is revealing that the framers of the Treaty of Rome were adamant in ensuring that the content of the curriculum in each member state should not be the subject of direction or interference from the Commission who, they feared, would impose a teleology about Europe's ever greater unity). In sum, there is a good case that a revised European Studies might take on the function of helping to shape a broad understanding of the past and present of Northern Ireland's relations with Europe - and in that respect would play a positive role in furthering those relations. But it must be questioned how much this approach, insofar as it risks being trapped in a model based on a linear view of European integration, can really address the kind of challenges to Northern Ireland that will be posed by the developments in Europe's structure by 2020 that we articulated earlier. To put it bluntly, to teach Europe as a subject may broaden horizons but it may equally have little direct relevance to helping Northern Ireland successfully ride its European future.

If not the obvious solution of European Studies then what? To answer this question we need to be clear about the task facing education in this area. It is to develop the appropriate skills that will help adapt the potential advantages of Northern Irish society to an evolving European future. In other words any changes in educational perspective and practice, while taking close account of what Europe has to offer, must pay even greater attention to identifying and enhancing the strengths that will allow this particular society the best possible adaptation to Europe.

When we look closely at what Europe will be 'offering' in the next two decades the picture is one in which welcome and unwelcome aspects are bound up together. There is space here only to sketch two areas as indicative of the type of difficult question that education will face.

First, and perhaps least anticipated, will be the acceptance of the English language as the *lingua franca* of commerce and business throughout Europe. The apparent benefit for a community with a notoriously hesitant approach to foreign languages may be outweighed by the loss of the traditional competitive advantage by which Northern Ireland as part of the wider 'Atlantic' world is attractive to enterprises seeking location in an English-speaking environment. The impact of such a change on education strategy will be large. The temptation to downgrade the learning of foreign languages or the contact with foreign

cultures as less necessary may in fact be the wrong response. Enterprises faced with a choice may prefer a workforce which, through its competence in crossing linguistic boundaries, has demonstrated the necessary adaptive ability central to coping with future changes.

Secondly, will be the harmonization and recognition throughout the European Union of qualifications. Hitherto confined to discussions about the professions, the scale by 2020 will be broadened to encompass every qualification with the aim of removing the artificial barriers to competition represented by the national control of access to particular jobs. Two results may be expected. First, part of the process will inevitably involve agreement being reached on the common elements that will be required as the core for each award. Second, once qualifications are essentially portable across the European Union then mobility will be increased both in to and out of Northern Ireland. Both changes will impact strongly on education. The one because it will involve sometimes painful adaptations of the curriculum and bring in new requirements that may have a knock-on effect elsewhere. The other because it raises questions about the best preparation for a new pattern of mobility distinct from the predominantly economic emigration of the past.

What each of these examples – and there could be many others – suggests is that the European environment will not be directly or automatically a benign one. In this case the task of using and enhancing the particular strengths and advantages of Northern Ireland to ensure the best adaptation becomes even more crucial. Naturally one part of the success, or otherwise, with which this is done will depend on how well the Assembly and policy-makers work from their regional position to anticipate and think through correctly the effects of change at the European level.

There is an urgent need, therefore, for the consideration of European matters to become formally integrated in the business of government, its Ministries and Departments. Without this and without a permanent and direct link into the European institutional structure (both already the practice in Scotland) the opportunities to grasp specifically beneficial initiatives will almost certainly be missed. But even if policy is sensitive to Europe and flexible in its responses there must still be those with the skills to make it work to advantage. In the sphere of education this means, above all, the teaching profession. Student contact with Europe - through visits, exchanges, and the use of such tools as interactive technology jointly with European partners - should, and will, undoubtedly have an enhanced place in the curriculum of all types and levels of education; but it is the teachers and their schools and colleges on whom the responsibility for channelling adaptation will fall.

For this reason the Northern Ireland education system must create the freedom for teachers to share in the best European practice. This, of course, will be a two-way process. There are areas of Northern Ireland practice such as cross-cultural education or integrated schooling whose experience will be of value to a wider European development and which should involve teachers and schools being actively engaged in projects with their counterparts in the European Union. There are equally areas in which the European experience may help to unlock areas of change that are particularly suitable for Northern Ireland. One example will have to suffice.

In few, if any, other parts of Europe are the value distinctions between an academic and a vocational or applied curriculum so rigidly applied. The recognition of the damage caused by such stratification to society and economy is a key element in the discussions about a more inclusive Europe by 2020. It is not unthinkable that Northern Ireland could break a new path in this area in the UK. The application of the best of practices from other regions in Europe – peripheral or motor regions alike, and including the Republic of Ireland - through such means as the creation of new curricula alongside European partners and shared delivery of scarce skills is eminently attainable and potentially transforming. The point is a simple one: education could, and should, be at the heart not just of linking Northern Ireland into Europe but also of ensuring that its particular qualities develop as strengths and not problems. Whether that comes true depends on the extent to which

Europe continues to be seen as posing a threat rather than a context in which Northern Ireland can be itself.

Victims or Mentors?

Metaphors for 21st Century Children

Ruth Leitch

Social history indicates that during each century the perception of children in developed society tends to go through a series of changes. For example, in the early part of the 20th century, the concept of 'youth' as a separate grouping did not exist, children largely being viewed as chattels of their parents. Yet by the 1950s and 1960s, youth culture was well established with all its independence of thought, economics, expression and, some would say, problems. Any society's views of children are reflected in the social organizations, support structures, services and laws of the times. One of the main developments in how children have been perceived since the middle of the last century has been enshrined in the current metaphor 'child as victim'.

The metaphor of 'child as victim' can be juxtaposed with earlier ones from the 19th century such as 'the wilful child', justifying the necessity of corporal punishment for the child's own good, or 'child as mini-adult' where, from the earliest age, children were required to take on adult responsibilities albeit mostly from necessity. The emergence of the 'child as victim' replaced these earlier metaphors with a more sentimental image of children in which they are variously viewed as being too young or too innocent to understand the vicissitudes of 20th century living and are therefore in need of protection. At their best they are considered resilient and coping well, despite what may have befallen them. In either case, 'children as victims' provide adults with the motives and feel-good factor associated with the role of 'rescuer'. The focus of this essay will therefore be to document some of the significant ways in which the concept of 'child as victim' has helped to improve our understanding of children through the last fifty years, and some of the lessons (often hard) that we have had to learn in Northern Ireland. Out of this analysis arises the challenge to identify new metaphors for children (and adults in relationship) which will inspire and guide us over the next decades of the millennium so that the educational and support needs of children can be better met and, in some instances, transformed.

The potent metaphor of 'child as victim' first came to the fore in the 1960s through John Kempe's work on the 'battered child syndrome' (see for example Helfer and Kempe's *The Battered Child*, 1980). In the developed world, child abuse as a powerful social construct was born and the concern for the welfare of children and young people who were victims of abuse and neglect, in all its hideous forms, gathered momentum. In Northern Ireland, for example, the latter half of the last century saw the public exposed to many painfully vivid descriptions of children reared in hen-coops, subjected to inter-generational incest, involved in paedophile rings, subjected to humiliation and to domestic violence. Reports of children as victims often seemed sensationalist and public awareness and belief in its existence fluctuated. Where had this come from? Was child abuse something new, borne out of the pressures of 20th century living? Surely the various instances were unusual, committed only by those who were insane or mentally unbalanced? The hunt for perpetrators was on and zealots swooped on unsuspecting communities.

Teachers could not readily adopt a head-in-the-sand defence position on child abuse as more and more instances of child torment came to the surface to be dealt with by an initially ill-prepared and untrained education (and indeed social services) system. The accumulating statistics were alarming. In the one year, 1998/99, some 1691 offences against children under 16 were officially recorded by the Royal Ulster Constabulary (RUC) Central Statistics Unit. Of these, 581 were classified as murder, manslaughter or wounding and a staggering 990 were recorded as sexual offences. After the initial chaos of the alarming rise in cases, and one or two mistakes too many, 'child as victim'

eventually produced not only an increased recognition of types of child abuse and associated symptomatology but also the introduction of legal and welfare measures to improve detection and protection for children.

In the education sector, on reflection, we might be rightly proud when we survey the rising pile of procedures and policies emerging from the Department of Education (*Pastoral Care in Schools: Child Protection: 1999*), the education and library boards (ELBs), the Catholic Council for Maintained School (CCMS), the 'Area Child Protection Committees' (ACPC) and schools themselves. We also now have in place designated teachers and ELB officers to act as clear conduits for the reporting of cases of child maltreatment. These procedures and roles are all backed up and rooted in the *Children (Northern Ireland) Order of 1995*, the key piece of legislation governing child protection here. It looks as if we have it all sewn up in our goal of reducing children as victims in this area of concern at least. Rapid progress seems evident in many ways. So where is the challenge for the future?

Between now and 2020, we need, amongst other things, to have reconsidered our concept of children as victims. Considerable efforts have been expended on issues relating to the identification and reporting of child abuse, frequently with a beady eye on legal exigencies but without any certainty of conviction or justice (with, for example, RUC statistics showing less than 120 convictions in 1998/99, the same year in which 1691 cases were reported). It is timely now to begin to balance this effort by collectively considering how to intervene and actively support future generations of children and young people by bringing about the cessation of abuse and neglect.

First, we need to tackle our own complacency and ignorance on the issue of child victimization at its widest and often most insidious level. It is too convenient to divide the world into 'child victims' and 'adult perpetrators', choosing any term that defines them as 'not us'. It is my observation that much child abuse is insidious, widespread and rarely challenged. How often, for example, do we bypass the child being publicly smacked and humiliated in a shopping mall for simply having acted out his or her boredom or over-stimulation? As Alice Miller, the psychoanalyst, disquietingly observed in 1986: "It is essential for us to perceive the unintentional persecution of children by their parents, sanctioned by society and called child-rearing". With this challenge, we could usefully reflect on any potential hypocrisy, examining our own upbringing for better or worse and how we unknowingly perpetuate ruinous child-rearing beliefs and patterns. We might also consider what it is that prevents ourselves as adults being stronger allies to children we observe being needlessly hurt or humiliated.

Secondly, there needs to be more in-depth understanding of child survivors, helping them to unravel their hurts and any leftover sense of powerlessness so that we can understand and be involved more fully in the processes of recovery. We glibly refer to generational cycles of violence and abuse in families as if this were irreparable. More time, resources, research and training need to be focused on supporting children having survived abuse, rather than on simply reporting and relocating them within the care system.

And what about rehabilitation? In genuinely and systematically pursuing opportunities in the coming years to support and rehabilitate children who have been subjected to abuse, we have the opportunity to learn a great deal more about abuse. To be effective we need to know more about how abuse patterns get set up in individuals, families and societies, how children become isolated, how they learn to adapt and cope by internalizing violence and, most importantly, how to unlock the emotional patterns that spawn low self-esteem, self-hatred and continuing self-abuse.

Turning from the child as an individual victim to the collective 'children as victims', children as a group have been frequently portrayed as the innocent victims of the Troubles since the 1960s. On the one hand, children considered as 'innocent casualties of the political conflict' is at least an acknowledgement of the potential aftermath. On the other hand, however, children have frequently been described as having grown up largely unaware and essentially unaffected by the impact of the scale and nature of our political

conflict. When asked, parents and teachers are most likely to record that children are resilient, mostly impervious to the effects, much helped over the years by schools acting as sanctuaries and safe havens from violence affecting the surrounding community. While there are undoubted elements of truth in these adages, they also conveniently remove the immediate and future responsibility of adults having to face any of the potential pain, confusion or rage of children who have felt let down by their adults and by their communities' responses throughout the conflict.

Opportunities need to be presented in the future for adults and children alike to address the emotional dimension and stories of the Troubles in order to challenge whatever truths, myths or paradoxes exist in the image of the resilient child victims of the Troubles. If not, what is likely to be retained, by the year 2020 and beyond, are the stark records. For example, in the 30 years up to March 1998, Save the Children (see Leitch and Kilpatrick: *Inside the School Gates: Schools and the Troubles*, 1999, p 1) estimate that 1276 children and young people, mostly boys and young men under the age of 24, died as a result of the conflict, approx. 35% of the total killed. Living memories will continue to exist right into the next century, of children's fathers, mothers, siblings, close family members, teachers, school friends and neighbours who have been maimed or killed. Many among our coming generation of adults have been exposed to the first-hand experience of civil unrest, emergency security measures, intimidation, segregation, sectarian harassment, decimated families, explosions, arson, hijackings and punishment attacks in their communities. What is the potential psychological legacy of such traumatic events in terms of tomorrow's adults? We know from worldwide research (for example see Garbarino et al, 1991) in such places as Sri Lanka, Lebanon, Vietnam and Cyprus that the impact of war and armed conflict on a country's people (including its children) leads to widespread levels of post traumatic stress disorder (PTSD) with all its associated symptoms.

So far, then, all seems pessimistically victim-laden. However research, carried out by my colleague, Rosemary Kilpatrick and myself (Leitch and Kilpatrick, 1999), uncovered strong views and feelings held by children and young people which challenged 'child as victim' in terms of the impact of the political conflict on them and their schooling. Although a small-scale study, the children and young people intimated that they were not to be thought of as passive victims nor indeed as unaffected or unaware. True, many of their lives had been impacted upon directly, others indirectly and few felt completely untouched. The majority were passionate in their views about what they needed (and did not need) in terms of helping them to process their experiences, open up their vulnerabilities, extend their views, challenge their prejudices and deal with conflict. They wanted opportunities, real opportunities, to explore and discuss their views safely. They wanted adult educators who had the skill and confidence to contain emotional expression and differences of view. Importantly, they wanted sustained and purposeful contact with others from different religious and political cultures so that they could listen, feel and speak, working out for themselves what they really felt, thought and had experienced, however painful or different from that of their parents.

Evidently, many initiatives and much valiant work in educational settings attempted to address the issues emerging from the Northern Ireland conflict, particularly from the 1980s onwards. Through the twin cross-curricular themes of Education for Mutual Understanding and Cultural Heritage, enshrined in the *Educational Reform (NI) Order (1986)*, strides were made inside and outside the classroom to bring children from opposing communities together with a view to increasing understanding of difference and reducing fear and prejudice. Peace studies, conflict resolution, prejudice reduction and peer mediation also made their contributions. While there has been little methodical evaluation of the lasting impact of such initiatives, there is some evidence that addressing the real issues for children and young people did not go far enough. Yet as we move on into the future, with the anticipated consolidation of peace and further curriculum change, the necessity for such approaches, or their development through opportunities for real dialogue within and between classrooms, may be considered redundant. There will remain the temptation to try to consign all that has been ugly in Northern Ireland over the past several decades firmly to the past; not to rake over what has been, to 'let bygones be bygones' and to move on to new opportunities. On the contrary, however, what we

actually will require to do will be to ensure that there are sufficient educational practitioners with demonstrable emotional competence, based on a comprehensive, holistic understanding of emotional development; educationalists who can facilitate children and young people at the hard edges of their personal, social and civic understanding.

If we do hold to the myth that the children have been (relatively) unscathed, what will happen about the unprocessed confusion of the majority of the children of the Troubles and about the terror and grief of the numerous children who were past victims of unspeakable critical incidents? It is true that memories do fade with time (except intrusive recollections arising from trauma) and maybe if emotions remain numbed (with alcohol, drugs, distractions, workaholism, consumerism etc.) and secured in a conspiracy of silence ("Whatever you do, don't mention the war!") then we perhaps could get on with the illusion that the 'past is firmly behind us' and we are building a 'new future'. Surely, however, there must exist a generally held, common-sense recognition that thirty years of coping and getting on with life while being assailed by atrocities of all kinds via the media or in the neighbourhood (most of which remain unacknowledged and unprocessed) is not a constructive emotional platform for the new generations of the next thirty years plus. Certainly the matter befits some attention.

This leaves us with a challenge, however hard or seemingly pessimistic, to recognize that we all carry the past with us into the future. Hurt and angry children, without attention and respect, grow up into embittered adults. What applies to cycles of abuse arising from childhood also applies to cycles of community conflict and violence. Therefore, what has been said about adults' roles in challenging child abuse in the next century applies equally in the legacy of community conflict. Once again, we have to accept that we have a lot of learning to do. We need to find ways of approaching the issue of the long-term impact of the Northern Ireland political conflict sensitively and constructively and be prepared to hear children's and young peoples' voices in their attempts to make emotional sense of the past. Working through memories and experience leads to potential renewal. With such a response and disposition at least we, as adults, will be heading to the future, humbly acknowledging our willingness to deconstruct our former images of childhood and our roles as glorified protectors of it.

Clearly, the education sector, among many others, will need to play its part in this social transformation. In the immediate term, it will require us to turn the educational 'policy mountains' into living practice. This should begin with a compelling lobby to government for a commitment to begin comprehensive and ongoing training for all education staff, not solely designated or pastoral teachers; training which takes into account not just child protection issues but the recuperation and affirmation of children who have survived personal, domestic and community violence. To move in this direction will be part of a bigger, ideological drive where the key role in the emotional support and development of all children by educators will be recognized. This will be no small revolution in schooling when it comes, since for years we have paid lip-service to this issue by tinkering at the edges. Putting the emotional development of children squarely on the agenda, alongside the academic and with the understanding that the two are inextricably related, will require a transformation of the education system at every level not only in the conceptualization of schooling itself but also in reconstruction of teacher education. The beginnings of such a shift are discernible in the Council for Curriculum, Examinations and Assessment's review of the curriculum (CCEA 2000).

The 'person' of the teacher, in this revolution, will become every bit as vital a resource as the 'curriculum' or its supporting technology. This overt humanization of the teaching process will be welcomed by many in the ranks who have been working 'subversively' for years to bring support and understanding to children's lives despite the rigidities of the curriculum, and our current obsessions with results and league tables. The demands made on everyone will be high. Teacher development will require those involved truly to become 'reflective practitioners'. This process will oblige, within a wider framework, genuine, ongoing engagement with self and others, understanding the learning process inside-out, clarifying and testing values and beliefs, facilitating emotional processes,

recognizing the dynamics of cultural, economic and political systems, tackling change and conflict, acquiring the skills of navigating others' inner worlds, and developing creative learning environments. Such an investment will require to be offset by a renewed public willingness to respect, resource and reward this aspect of the teacher's duty to care and to educate holistically. In terms of practical back-up support, a comprehensive strategy of genuine inter-agency cooperation, including the secured involvement and good thinking of young people, needs to be in place. Implementation of such a strategy must be reinforced by the provision of external, qualified supervision of those teachers closely involved with supporting the children and young people who remain at the sharp edges of schooling.

In the event, teachers in 2020 will truly be facilitators of learning, developing educational contexts both formal and informal, real and virtual. Children and adults together will find a means to share understanding and to learn about the human condition and the world in which they will then live. Most importantly, they will also learn how to optimize conditions for growth, change and learning itself.

In order to underpin these proposals, we are left with the challenge of how to change the predominant thinking about children in our culture. The metaphor 'children as victims' is ubiquitous, not solely limited to those who suffer child abuse, neglect or political conflict but circumscribing our thinking about a much wider spectrum of political, social and personal issues facing children. Such a spectrum includes poverty, family break-up, exclusion, failure, bullying, racism, rejection, displacement, exploitation, delinquency, mental and physical illness and the whole raft of identified special needs both physical and mental. Metaphors are figures of speech which, in any language, symbolize experience and ideas by analogy, and which have in their nature the power to shape social action. We are at a point in time where there needs to be general recognition that the metaphor 'child as victim' has served its social purposes and requires to be modernized. It perpetuates traditional educational and support structures and dominates our relationships with children by emphasizing their relative powerlessness and ignorance, and our wisdom and worthiness. It is time now to let go of our assumptions and presumptions and to recognize that there is much we do not know, much that children can teach us individually and collectively about the nature of childhood experience, both positive and distressing. It is time for adults to share in the wisdom and insight of children as they unravel their own experiences. In so doing, adults are not abnegating their responsibility but are learning how to engage more democratically in bringing about appropriate change, sufficient to the real and expressed needs of children.

I would argue therefore that in the future it is 'children as mentors', as opposed to 'children as victims', that ought to be the dominant metaphor. 'Adults as allies' will replace notions of 'adults as rescuers'. These new metaphors will be more constructive in guiding our relationships and relevant support structures for children and young people into the next century. It is up to the social commentators of the 21st century to assess what kind of a job we will make of it!

Religion, Pluralism and Education

A 2020 Vision

Norman Richardson

It would indeed be a significant indication of a changed society if the many associations between religion and education in Northern Ireland were in the future to become marked by listening, openness, generosity and sharing – which at least some people would regard as a more authentic religious or even Christian spirit than that to which we have become accustomed. One might wonder, however, if twenty years is long enough to replace the wary territoriality which so often seems to characterize the involvement of the Christian churches in education.

A 'Dark Region' in education?

At a conference on cultural traditions held in 1989 a group considering the place of religion in education observed that:

Lack of knowledge led to fear ... [which] led to suspicion and mistrust. **The group accepted that religion was one of the darkest regions in education.** (Crozier, 1989 - present writer's emphasis)

There is little doubt that many people see religion as a kind of final bulwark against pluralism in Northern Ireland and in education in particular! For some it is a highly undesirable bulwark. They see a defensive, often exclusive religious establishment as a malign influence in society and on its schools; a significant source of sectarianism. The labelling of people into tribal camps, according to this view, is in no small way due to the religious separation of children and to their narrow and limited religious education in those separate schools. It is little wonder, then, that schools have become one of the symbolic targets for arson attacks during the quasi-religious marching season and at other times of sectarian tension. For others, however, religious education is a desirable barrier – a means towards protecting society from the encroaching evils of a secularism fed by liberal ideas which declare everything as 'relative'. Religion in schools, they propose, can carry that message to an otherwise 'un-churched' multitude and help to turn back the tide.

Historically and in the present the involvement of the Christian churches in education is substantial. The Catholic Church in Ireland has retained and forthrightly guarded its own schools and their right to teach confessionally (i.e. in relation to the religious teachings of their own tradition), albeit with considerable state support. While retaining significant rights in management and religious teaching, the Protestant churches mostly transferred their schools into state control in the 1930s, although it is not too unusual to detect faintly envious glances over at the position of the Catholic schools. Some fundamentalist Protestants have even set up their own 'Christian schools', usually to protect their children from what is perceived as the encroachment of liberalism in religious education and schooling in general (though one is sometimes tempted to wonder where such liberal approaches are to be found). Despite the support of many individual Protestants and Catholics the official attitude towards integrated schools among the various Church hierarchies varies from cool to hostile!

What will be the verdict of the next twenty years on the role of religion in education? It often seems that the battle lines are closely drawn between those who wish to banish religion altogether from the public educational sphere and those who suggest that without it civilization as we know it would cease to exist! Yet while it may suit these extremes to

suggest that these are the only possible positions, there are more subtle and sensitive approaches to the place of religion in schools. This is a vision of a more mature society which will recognize more appropriate alternatives, and take steps towards their realization.

A present concern

In a recent television discussion the UK Chief Rabbi, Dr Jonathan Sacks, suggested that there were two areas in which religion should move with great care. First, religion should not take power, although it was acceptable to seek to influence. Secondly, religion must always leave a space for the one who is different. If religion transgresses these, he proposed, it makes for very bad religion indeed! It certainly seems to many that in relation to education (and not that alone) the religious authorities have moved far beyond the role of influencers and have become significant agents of power, both directly and indirectly. In doing so even less space has been left for those who are different.

This is by no means unique to Ireland, but it has particular resonances in a society where a very large sector of education is separated out along perceived religious lines. This, however, is not simply an argument about religiously separate schools, although it is hard to avoid the questions which this raises. While it is true that the phenomenon of separate, divided schools is a symptom of a separate, divided society, it is no less true that the symptom has become closely intertwined with the cause.

Beyond the issues of separation, the concern which gives rise to this vision is about other inter-related issues. It is about an approach to religious education (RE) which is seen as the preserve of the Christian churches. A major obstacle is the Core Syllabus for RE, agreed by the four largest Christian denominations in 1992, which is exclusively Christian and gives extremely limited and only grudging recognition to other faiths. Closely related to this is the concern that teachers and schools seem largely unaware of the needs of pupils from ethnic and religious minority backgrounds. It is also about the abuse of education for the purpose of promoting faith, sometimes through direct proselytization but more often by the exclusion of consideration even of the beliefs and practices of other Christians, let alone of other faiths. It is about the narrowness with which some choose to teach religion, whether in schools or in the churches, attempting to point children towards their own mind-set and to mould their thinking towards a received orthodoxy. It is about the failure to challenge prejudice, sectarianism and racism out of a misguided sense that it is not the role of schools to do so. It is about the self-righteous or naïve declaration that: "We don't have any problems here!" which rejects the need for education in mutual understanding and cultural awareness. It is from this position that some oppose any attempts to introduce a broader approach to the teaching of religion, arguing that children 'don't need it', or that they need to learn about 'their own faith' first.

Is there any difference between this and the culture of avoidance which has been too familiar a feature of the years of political conflict and violence? There is a real irony in one small piece of research in the 1990s which showed how some teachers preferred to consider visiting a synagogue or a Hindu temple with their class rather than contemplate taking them to churches 'of the other persuasion'! (Curran, 1995). The Northern Ireland conflict is not in any simplistic sense a religious dispute, but we should not discount or minimize the significance of exclusive approaches to religion, and religious education in particular, in shaping the mentality of sectarian conflict.

These concerns are not new and nor, indeed, are the proposed alternatives. Some educators have long held a vision of a more educational and holistic approach to religion in schools. Some, like John Greer and his colleagues in the University of Ulster, worked hard during even more depressing times to provide teachers with the necessary skills and resources, and schools with the confidence for this task (see, for instance, Greer and McElhinney, 1985; McElhinney, Harris and Greer, 1988). Their pioneering was sometimes acknowledged with polite lip-service, sometimes attacked as 'ecumenical' or 'relativist', but occasionally it served to inspire others to share the vision and take it forward.

A future vision

Is there any possibility of real change in the inter-relationship between religion and education over the coming twenty years? Is a positive approach to building a culturally plural society in Northern Ireland more than just a pious liberal dream?

The vision which continues to motivate the present writer is of an educational system which recognizes the importance of religious education. This, however, can no longer be argued on the grounds of religious privilege or imperative. If there is to be a viable future for religious education in the public education system it can only be justified if it is educationally sound and respectful of diversity. This will be a particularly difficult challenge for those schools with an overtly religious identity and for those teachers who have a deep personal faith commitment, but it is a challenge that must be faced.

The task is one of encouraging and building an approach to religious teaching in schools which is open, enquiring and challenging, but at the same time respectful of diversity and sensitive to the needs of a range of faith groups and of those who belong to no faith. It is, as often expressed to student teachers, the need to teach religion in a way which respects the integrity of the pupil, the subject and the teacher. In Britain and many other parts of the world this approach has largely been taken on board and has been found to be broadly acceptable to most groups. Indeed, it has to be asked if there is any other way of dealing with religion in education in a plural society apart from the too-simplistic and defeatist option of banning religion from schools altogether.

This, then, is a vision of an educational system 20 years from now which still holds a place for teaching religion, but on a very different basis than is usual at present. In such schools there will be a greater religious and ethnic diversity. The notion of the school as a place for one particular community, religiously-defined or otherwise, will have been abandoned as inimical to the development of a healthy society. The notion of the school as a neutral place will have been recognized as cold and unsympathetic and set aside in favour of the open acknowledgement and celebration of diversity. Schools will be seen as **shared space**, and the sharing will be valued and nurtured. The cultural and religious needs and concerns of this range of pupils will be known, understood, cared for and celebrated by teachers and the whole school community. It will be an expected and accepted part of the teacher's job to do so.

Within a school where this ethos prevails, religious education will be seen not as learning how to be religious or how to feel guilty about not being religious, but rather as an exploration of the ways in which religion has influenced people's thinking and behaviour, and society past and present. It will be an encounter with living religious traditions of all kinds, in order to learn about them and from them. It will be an opportunity to reflect on issues which have inspired religious questions and answers, but also an opportunity to think, question and challenge. It will be an opportunity to examine moral and ethical issues, both individual and global, and to clarify personal values. Teachers in this context will not present themselves as authority figures but as co-learners and seekers after truth. Christianity, in whatever form, will have ceased to be the sole religious tradition to be explored in religious education classes, though inasmuch as it may remain a significant influence in the lives of people living in the Northern Ireland community it may quite reasonably occupy a space in keeping with its place as the religion of the majority. School assemblies, officially required by government in the 1990s to be 'wholly or mainly Christian in nature', will have ceased to be a daily 'God-slot' but will be valued as an occasional opportunity for the breadth of the school community to take part in, reflect on and celebrate their shared and diverse values and ways of life.

Churches at an official level will probably find this a very difficult vision to share. It will require them to acknowledge, respect and work as partners with members of other faith communities. Some members of minority faiths may indeed find this equally unfamiliar territory and no less uncomfortable. If they need reassurance they should all look across to the British 'solution' in the establishment of Standing Advisory Conferences on

Religious Education (SACREs), where local partnership in the planning of religious education syllabuses takes place.

How will we get there?

If we are to embark on this long road we will need to develop a new attitude towards each other. First of all there must be a genuine listening to the concerns of the various parties as a means towards proper communication. In the well-known rabbinical saying, we were given two ears and one mouth, so we should listen twice as much as we speak! Listening has not always been a quality associated with the relationships between the Christian churches, let alone between Christians and members of other faiths, or between religious believers and those who have no religion. Such listening will probably begin on a small, individual scale, as characterized in the work of the Council for Christians and Jews or the Northern Ireland Inter-Faith Forum, but it will soon have to take on a broader community dimension.

Those involved in teaching religion in schools will have to make very clear the open purposes of religious education. An increasingly sceptical public will not tolerate forever the use of schools to promote particular forms of religion. Those who have already adopted an open and plural approach to RE must make their case ever more strongly, because the public has simply not heard it yet. Schools which have already developed partnerships across the cultural and religious divisions of Northern Ireland (for instance, through education for mutual understanding or the Schools' Community Relations Programme) must not be seen to be studiously avoiding the religious dimensions of their sharing, as some have done, or religion will continue to be that 'dark region' in education. They must also broaden their horizons to take account of the greater local and global plurality beyond Catholics and Protestants.

This building of a balanced pluralism in the education system will require much in the way of professional development. Teachers will have to become much more aware of the range of Christian denominations and their emphases and concerns, and of the various other faith communities. They themselves will have to be engaged in personal and group encounter to this end. Being told by others about the beliefs and practices of particular groups is no substitute for person-to-person meeting and conversation. But as well as increasing the knowledge level of teachers we must also be providing them with the skills to manage an open approach and to deal with questioning, with challenging, with controversial issues, with conflict. Such inter-personal and inter-group skills are the stuff of good quality cross-community programmes, and they need to be disseminated much more widely among educational professionals.

The most difficult dimension of this way forward will be the extent to which we are able to move from separateness in education to sharing. There are few signs that those who manage the church schools, most notably the Catholic Church authorities, are ready for this as yet. A more confident and politically mature society may be able to move in this direction, but it will need broader consent than presently seems to be possible. The necessary confidence-building process may lie in setting in motion the vision of a more open approach to religion in schools – attempting to shed light on the 'dark region'.

An early glimmer of that light was sparked by a brief phrase in an official preview of Curriculum Review proposals in 1999. It argued for:

... a shift in the emphasis of Religious Education towards understanding major world religions, in particular Islam, as well as other Christian denominations within Northern Ireland. (CCEA, 1999)

It is unusual for curriculum bodies in Northern Ireland to address themselves to religious education issues and so it will be very interesting to see how keenly this is pursued.

This vision will not sit easily with those who prefer the status quo in either religion or education. For the present writer, however, both religion and education will only flourish if

they are concerned with exploration, movement, risk and the challenging of boundaries. Notwithstanding all the obstacles and frustrations, this is a road worth travelling.

The Knowledge City

Paul Nolan

“Do you seriously see any purpose for adult learning other than training people for the job market?” The speaker was a senior civil servant from the Department of Education and Employment and, at the launch of the government’s consultation on the future of further education in 1999, the question was turned on Alan Tuckett, Director of the National Institute of Adult and Continuing Education. “No,” conceded Tuckett, adding “Except of course in a democracy.”

It was a point neatly made. The emancipatory tradition of adult education has been expunged from memory by those now writing the future for adult learning, and the hegemony of the labour market in government discourse does not allow for dissenting voices. There is a tendency to blame New Labour (or its control freak wing) for all of this, but the lifelong learning agenda has been rolled out in virtually identical form in every member state of the European Union. The first coherent formulation of the policy came from the European Commission in 1994:

The information society is on its way. A digital revolution is triggering structural changes comparable to last century’s industrial revolution with the corresponding high economic stakes. The process can not be stopped and will lead eventually to knowledge-based economy.

Here in the UK three new major initiatives - the National Grid for Learning, the University for Industry (now marketed as *learnirect*) and the New Library Network - are acting as flagships for the new knowledge revolution. Continuing technological innovations, such as the promise of increased bandwidth, together with the remorseless increase in computer processing power combine with decreasing purchase and user costs to create a vision of a future when education will be delivered via remote access, electronic communication and individualized learning packages. The fact that these developments hove into view at the same point that the calendar took us into a new millennium offered the temptation to pundits to engage in prophecy: a sort of millennium heat rises off the page where the new Jerusalem is described, and the dark satanic mills are replaced with interactive learning points, call centres and e-commerce incubation units.

It sounds impressive, particularly when you roll it all together in a paragraph. But what will it be like? Can we imagine how it’s all going to look? I find my crystal ball is a little cloudier than the ones that other people seem to have. There is an internal misting, which I think I can trace back to two factors. The first is that when I think of the year 2020 I remind myself that is only just as remote - no more, no less - than the year 1980. At that time there was a vogue in television for sci-fi programmes like *Blake’s 7* which fantasized a future. These programmes usually featured men in white acrylic polo necks striding purposefully down oval-shaped corridors where sliding doors opened automatically before them. It wasn’t actually very futuristic, when you think of it, though the sci-fi of the period usually included another future, often referred to as the ‘Complete Breakdown of the Social Order’. Dystopias were - and remain - the stock-in-trade of the genre, and technological advances were only of use in helping small bands of survivors ward off the bizarre gangs of marauders roaming the ruins of the post-apocalypse landscapes.

Educationalists must have sunnier natures. The prophecies that are pouring out of the magazines and journals present technological advances as opening the gates to social and cultural advance, all propelled by the new knowledge economy. The Information Society will be a happy place. When I try to conjure up an image of it I think automatically of those architects’ drawings in which perfect looking people enjoy leisurely strolls through beautifully landscaped developments. A handsome couple are giving a swing to a laughing child, over in the corner a pensioner takes his ease with a newspaper while a

solitary female shopper can be seen carrying her purchases through the trees just coming into bud in the patio area. I can see all of this. My problem is that my vision blurs slightly when I try to see the buildings that give physical shape to the new knowledge society. Professor Tom Schuller from Birkbeck College is fond of making the point that the actual physical architecture of education is a reliable guide to the ideologies and beliefs that inform its practice in various periods, or as Lucy Musgrave, Director of the Architecture Foundation puts it: "If you've not got the right environment and amenities you can't achieve the right learning culture."

Trying to envision my home city, Belfast, reconfigured as a knowledge society I am struck by the thought that I have already glimpsed it. Whenever I get a free Saturday morning I like to go on a journey that takes me through the past, present and future of adult learning. I didn't ever set out to trace this trajectory with such conscious purpose: to be honest it was more or less by accident that the teleological thrust of educational development revealed itself to me. What I like to do, you see, is mooch around town, and it so happens that some of those buildings that stand out as the physical landmarks of Belfast city centre also serve as staging posts in the history of educational development. Less visible, perhaps - or less obvious in their significance - are those structures which, as well as exercising their present-day function, also act as the signifiers for the future. The clues are there, like in an old-fashioned treasure hunt, and in a moment I shall try to identify them.

But first, the past. The bus to the city centre drops me in Wellington Place, just outside the Linenhall Library, our last surviving link with that period of history when Belfast saw itself as a beacon of the Enlightenment or - pitching it even higher - as the 'Athens of the North'. The talk then, as now, was of knowledge. Those who gathered together in the old Linen Hall to drink coffee and also to imbibe the works of the French philosophers believed that a new dawn had arrived for humanity. Knowledge would drive away superstition, ignorance and injustice. Their enthusiasm led them to give organizational shape to their beliefs, and the Belfast Society for Promoting Knowledge was created. The first librarian of Linenhall, Thomas Russell, a man fluent in Greek, Hebrew and Gaelic, was an enthusiast for the libertarian ideas of the French Revolution, and his enthusiasm was to cost him his life. He was hanged during the doomed rebellion of the United Irishmen in 1798, and later immortalized in verse as *The Man From God Knows Where*. His other legacy, the dream of the unity of Catholic, Protestant and Dissenter survives as a potent myth, even if one constantly belied by the sectarian hatred that has shown itself to have the greater staying power.

I make my way down Royal Avenue, to the far end of Royal Avenue in fact, for my first destination is Belfast city centre's other main library, the Central. In 1888, exactly one hundred years after the Linenhall had been created as a private library, fifty citizens petitioned the city council for the establishment of a public library. In October that year the 'Free Library', as it was known, was opened with great pomp and ceremony by the then Lord Lieutenant of Ireland, the Marquis of Londonderry who declared it would: "... prove a source of universal blessings to all classes of the inhabitants of this growing and flourishing community". The use of religious language was not accidental. To the Victorian mind the spread of knowledge was linked closely with the spread of virtue, and the early enthusiasts of the workers' educational movement like Albert Mansbridge or Archbishop Temple, often used the language of the religious mission to describe their purpose. Spiritual gain of course did not preclude material gain, and the Calvinist work ethic had a strong hold on the citizens of Belfast in the late 19th century. Describing the opening of the Central Library, Hugh Russell writes:

It is almost touching when one reads contemporary accounts of the establishment of the first 'Free Library' in our city, to sense the hope and fervour with which the citizens greeted the grand opening. It was clearly seen as one the ways in which individuals could improve themselves, and as a prestigious investment in a better future.

What wouldn't the Department of Education give for a similar response to a modern initiative? Can anyone imagine cheering crowds turning out for the launch of Individual Learning Accounts or a new *learnirect* Access Point or the newest Enterprise Centre? The air has gone out of the education balloon. The citizens of 21st century Belfast, in common with the citizens of Glasgow, Berlin, New York and many other points of the globe have lost confidence in the idea of knowledge. It is no longer seen as the path to eternal life nor, for that matter, does it offer earthly riches - just a few rungs up the ladder.

It is not surprising then to find David Blunkett indulging in a little nostalgia for the moral purpose that infused adult education at the end of the last century. It was ironic, however, that he should have expressed it in the Foreword to the 1998 government document, *The Learning Age*, which was designed to act as a trumpet blast to announce the new lifelong learning agenda. In it he wrote:

We are fortunate in this country to have a great tradition of learning. We have inherited the legacy of the great self-help movements of the Victorian industrial communities. Men and women, frequently living in desperate poverty, were determined to improve themselves and their families. They did so through the creation of libraries, study at workers' institutes, through the pioneering efforts of the early trade unions, at evening classes, through public lectures and by correspondence courses. Learning enriched their lives and they, in turn, enriched the whole of society.

I was a beneficiary of this legacy. This library supported me and all those other working class kids in Belfast who got their break through the 1947 Education Act. 'The Best of All That Has Been Thought or Said': that was the legend, and that was what we were offered. It wasn't always what we picked - we were too grubby and dirty-minded for that - but the Central Library opened up a world to kids who came from houses with no books.

My children don't see it. I take them with me on these trips but the magic isn't there for them. There are books at home and books at school. They whinge, they complain, they strike a deal. They'll come to the library if we also go to McDonalds and the Virgin Megastore. And so we make that short journey back up Royal Avenue, and as we travel those five hundred yards we take a step into the next century. Inside the Virgin store there is a wall which has a huge bank of videos, most of them feature films, but also titles like *How To Play Golf*, *Brush Up Your Spanish* and *A Guide To Aromatherapy*. This is the new learning. According to the Campaign For Learning, more than half of adult learning now is self-directed. The 21st century learner wants to learn at his or her own pace, preferably in his or her own house.

A couple of doors up from Virgin, the Waterstone's store is doing good business. If the public library is now left to the elderly and the unemployed it is because the reading public no longer requires a public service. In a real sense the coming of the paperback was the first privatization campaign. Those who browse the tall, stacked shelves of the Waterstone's store today and sit on the leather settees to sip a coffee accept the responsibility of individuals to finance their own reading. They are not exercising their rights as citizens to avail of a public service, rather they accept that their relationship to literature is, at this point, that of the consumer in the store. The paradigm shift is accepted as unproblematic. As consumers it is also unproblematic for them to make the next paradigm shift, into on-line shopping. For Waterstone's the competition is no longer from the other high street chains, rather it is from Amazon and the other Internet book retailers. From Waterstone's doorway it is just a short two minute walk through the dog's hind leg of Lombard Street to the Dixon's store, which sells the computer hardware and software that acts as the major threat to every other retailer in the vicinity. Last Christmas I came into town to find that Belfast's last toy store, Leisureworld, had closed, fallen victim to the remorseless pressure of the competition from Sony Playstation and Dreamcast. And, yes, I admit it. I succumbed to the pressure and bought my youngest a Playstation.

At school he is using a computer. In the year 2020, when he is thirty, he will no doubt be using a much more powerful machine which will provide him with forms of connectivity so

novel we cannot even begin to predict them. We can be sure of this though. The government has got it half right. Online learning will wipe out much of what generation after generation had assumed to be the essential and eternal features of education: the teacher in front of the class, the visit to the library, the punctuation of the academic year into fixed terms. Time and space will collapse. Learning will be at the learner's pace. You will be able to do it at your desk, in your time, on the back of a bus, in the pub - anywhere. The physical architecture of education will be barely visible, other than the screens in the corner of public and domestic spaces. In an extraordinary act of transcendence we will go beyond those great behemoths like the College of Technology or the Central Library and gather together in communion in cyberspace.

It's happening already. The University of Ulster, for example, managed before the close of the 21st century to run a virtual postgraduate course in Biomedical Sciences, with 120 registrations, one quarter of those logging on from other parts of Europe, Asia or North America. The next stage is a virtual masters degree in Coastal Management. If this can be seen as a successful entry by a Northern Ireland university into Internet-based distance learning then the very success of the enterprise immediately points the way to the obvious danger. Put simply, why bother with a University of Ulster degree when you could enrol for a professional qualification from Harvard or York or Oxford or Cambridge? The answer to that is likely to be found within the cash nexus: market forces will inexorably force a restructuring of registration fees. As with everything, the new models are being tested in the United States. The University of Phoenix, for instance, is a private enterprise owned by Apollo Communications. It produces its own courseware and, in addition, makes provision for 'course assistants' who can provide student support at local centres. At present it confines its operations to North America and to the post-graduate professional qualification end of the market. However much it expands its market in the future it is still likely to be overtaken by the big players. The big players, in this context, are likely to be a hybrid of an established 'brand name' university like Berkeley, Harvard or Yale with one of the huge private sector corporations such as Time Warner, Disney Corporation or Cisco. Professor Howard Newby describes the process at work:

While the universities provide most of the academic expertise and, crucially, the 'branding' necessary for market credibility, the partners provide production facilities, distribution and marketing, as well as much of the underlying technology, to enable the operation to proceed to proceed on a truly global basis.

What is true for universities is true also for provision at other levels. New partnerships will emerge which will blur the boundaries between education and entertainment, between the world of work and the world of leisure. The think-tank Demos, in its publication *The Creative Age*, paints the picture for us:

Those unable to update their knowledge base fast enough, both on the job and in their own time, are increasingly at risk of marginalization, competing within a shrinking set of low-skill vocations. While qualifications are still integral to personal success, it is no longer enough for students to show that they are capable of passing public examination ... Learners and workers must draw on their entire spectrum of learning experiences and apply what they have learned in new and creative ways.

Phew! It's an exhausting thought. Not only will we have to learn at work, but our social and domestic lives will be colonized by labour market requirements.

Is there any relief from this? To return to Alan Tuckett's heretical thought, will adult learning not be allowed any purpose other than the skilling of the workforce? I think again of that small group who met together in Belfast's old Linen Hall, fired by the hope that the pursuit of knowledge could be allied to the pursuit of justice, and that their fellow citizens could begin to live lives free from oppression and free from bigotry. Or those a century later who left the foundries and the shipyards and the grain mills to pour through the Corinthian pillars of the Free Library, eager to seize the books that brought them new forms of enlightenment, which existed beyond the world of work. When these people

gathered in their workers education groups to open further the domain of ideas, they had hold of a truth that this government has failed to recognize. Learning is a social and not just a cognitive activity.

Computer screens allow us to access information, but real change within people occurs through encounters with other people, which is why group learning remains the natural home of the learning experience. We will not, for example, defeat sectarianism through interactive multimedia packages; it will only be by bringing people into direct dialogue that we can expect attitudes and beliefs to shift. If we are to achieve a peaceful society by 2020 it will be because we have learned tolerance. That learning can take place in community centres, lecture theatres, prison recreation rooms, art galleries or trade union halls. It can run alongside individual learning, just as skills training can grow alongside liberal arts education. Adult learning is the broadest of umbrellas.

Imagine then the world of education shrunk to the size of a single building. In one room people are reading for pleasure, in another students are studying for examinations, in another they are learning to use computers. Actually, I've just been to a building like that. I was in the Central Library and called in to look at the new computer suite that has been installed in the ground floor. It looked like a space station. Gleaming new machines sat on every table, there was the quiet hum of contentment from the users. Some seemed proficient net users, others seemed like they were getting to grips with it for the first time. I don't know for sure but I imagine some of them will use their new skills to try to improve their qualifications to help them enter the labour market. Good for them. Others will use the technology just to access information and - gulp - just to have fun. Let's hope they do. But don't tell the government.

Globalization 1

A 2020 Focus

Joseph Martin

In 1876, the chief engineer of the British Post Office, Sir William Preece, declared: "The Americans have need of the telephone, but we do not. We have plenty of messenger boys." Twenty years later, Charles Duell, commissioner of the US Patent Office, is reported to have said: "Everything that can be invented already has been." It is hard to believe that in the space of little more than a hundred years, the world is dominated by mobile telephones which instantly connect people in every part of the globe, that events occurring in the Far East are transmitted simultaneously to the remotest corners of the West in sound and colour vision, and that business decisions taken thousands of miles away can have the most profound and immediate consequences - for good or for ill - for a community in Northern Ireland. Such is the extent of the global network made possible by twentieth century innovations, particularly in the field of information and communications technology (ICT), that an island on the western seaboard of Europe is linked inextricably to every part of the world and is affected inevitably and profoundly by economic, social and political developments in a world where the messenger boy is as much an anachronism as the horse-drawn carriage.

What is the response of education to these global changes? What kind of schooling will be needed in 2020 to prepare young people for a truly global world? While it would be unwise to follow in the footsteps of the chief engineer of the British Post Office or the US Patent Office commissioner in making predictions, nevertheless it may be possible to get at least a glimpse of what education might look like in 2020 by taking a brief look at some of the pioneering work that is already taking place in education in Northern Ireland and to speculate that this is likely to point towards patterns for the future.

In the spring of 1999, I had the privilege of taking part by video-conference in a wonderful global learning experience, when a member of the US House of Representatives, Congressman Jim Walsh, hosted a discussion from his office on Capitol Hill in Washington DC with a group of 'A' level Politics students in the Technology Education Centre in Omagh and simultaneously with a group of US students in New Jersey. The students on both sides of the Atlantic had prepared questions on the US legislative process, the current situation in Northern Ireland and the British political system. The one-hour-long session gave the Northern Ireland students the opportunity of discussing with Congressman Walsh topics which formed part of their examination syllabus and of gaining insights at first hand from an experienced US politician who was himself a former teacher. At the end of a most stimulating discussion, the Congressman said: "This has been a most exciting experience for me. It is the first time I have ever spoken to students in two continents at the same time. I didn't know it was possible yet. We often refer to the Atlantic as the 'Pond'. Today has shown just how small that pond has become." One of the Western Board teachers who took part in this distance learning experience described it as " ... the best thing that has happened to 'A' level politics in the twenty years that I have been teaching the subject." An American teacher described it as " ... a mind-expanding experience."

This 'visit' to Capitol Hill was part of a project undertaken by the Western Education and Library Board to enable students in different disciplines on both sides of the Atlantic to take part simultaneously in virtual visits to US educational, political, cultural and business institutions. The aim was to help create a meaningful global learning zone through innovative use of education technology. Rooted firmly in the curriculum of participating schools, its objectives were to enrich the curriculum and broaden horizons, to explore and

develop the concepts of the global classroom, to promote distance learning, to promote an awareness and appreciation of cultural diversity, and to foster trans-Atlantic collaboration in the field of education.

Another example will serve to illustrate the potential of modern technology in a global context to transform the learning experience. Pupils from a Western Board school who were studying 'A' level Geography and Physics took part in a most remarkable lesson about 'Forces that Shape the Earth' by means of video-conferencing with the Liberty Science Center in New Jersey. Over a period of two months, the teachers from the school had liaised by e-mail with the Liberty Science Center to ensure that the distance lesson would be relevant to their curriculum. An agreed lesson plan was drawn up including the required preparations to be done by pupils in order to derive maximum benefits from the virtual field trip. This preparation included researching recommended websites and using worksheets provided by the Center.

The objectives of the lesson were to understand that earthquakes are waves of energy that move through the earth, and to explore and experiment with the variables that have an effect on damage that occurs during an earthquake. During the virtual visit to the Liberty Science Center, the locus of control was largely with the pupils. They directed the experiment with the torsional wave machine, which illustrated wave behaviour, and they were fully engaged in the main activity of the lesson, which was to 'build your own earthquake'. For this, the Earthquake Simulator in the Liberty Science Center was used. This allowed interactive examination of the effects of earthquakes on different types of structures. In order to create a building and then activate an earthquake the students entered variables into the computer, hypothesized the outcome and tested it.

This was a wonderful example of effective interactive distance learning, a prototype of the global classroom. Pupils and teachers were equally enthused. The general comments were that it brought learning and teaching to life and extended the walls of the classroom. Through the experience of new and exciting education technologies, pupils learned through enjoyment, there was an enhancement of problem-solving skills, increased self-esteem, increased motivation and stimulation of pupils and teachers, a broadening of horizons and an appreciation of the value of trans-Atlantic co-operation in education. As a result of the initial success in terms of curricular enrichment and development of key skills, the school is now in the process of arranging for a series of customized lessons from the Liberty Science Centre delivered via video-conferencing and supported by e-mail in the preparation and follow-up stages. This gives us another glimpse of the developments in content and methodology which are now possible and are likely to shape the 'classroom-without-walls' of the future.

These examples taken from the post-primary sector are mirrored by similar innovative and exciting work in primary school classrooms. During the past school year, two primary schools from the Western Board area, two schools from West Cork and two schools from Western Pennsylvania co-operated in a project called 'Author on Line.' By arrangement, they all read the same set of books by a popular children's author which had been supplied free to all the schools by the publisher. Through the medium of the Northern Ireland Network for Education (NINE), the children from all three areas were enabled by means of web-conferencing to share with one another their experience of the books and to enter directly into dialogue with the author about aspects of the books which particularly interested them. It was an extremely good learning experience for the pupils. It enhanced their love of reading; it gave them direct access to the author who replied to their queries and comments; it enabled them to share their learning experiences with other pupils who were separated from them by great distances, and it made them aware of other perceptions and other cultures.

It was followed up by a further project in which another author communicated with pupils in the schools by video-conference. An interesting feature was that the author who illustrated his own books gave a practical lesson to the children on the drawing of animal characters, at the end of which each child had produced a drawing of an animal from one

of the author's books. Many of these were displayed on screen for the author's comments and for the attention of their peers.

These projects exemplify, albeit on a small scale, the way in which globalization enriches and extends the learning experiences of pupils. They may perhaps be seen as signposts to the future direction of education. Already, every school in Northern Ireland has access to e-mail and the Internet and will soon have video-conferencing facilities. These technologies are now poised to bring about unprecedented changes in the way children learn and in the way schools support the learning process. What seems novel and extraordinary today will become commonplace and ordinary tomorrow.

Such developments will have enormous consequences for the whole school community - for the pupil, the teacher, the parent and the school itself. As pupils have instant access to a range of information and learning resources on an unprecedented global scale, many questions come to mind. Will instant access to these global resources encourage more independent learning? Will the new technologies enable pupils to move more easily at their own pace? Will the pattern of the school day or the school week change, as pupils depend less on the resources traditionally available only in their local school and can access expertise from all over the world at any time of the day or night. Will the role of the teacher become more that of facilitator, mentor, guide? Will it be necessary for every school to have specialist teachers of every subject or will schools access a wide range of teachers and other experts globally? Will the school/learning centre, linked to business and other organizations, become the focus of a local learning community for people of all ages? Surely it is reasonable to predict that these kinds of global learning experiences will be common practice in every community.

One important consequence for Northern Ireland will be the constant exposure in a new way to different cultures and education philosophies across the world. Technology knows no boundaries in terms of distance; neither does it differentiate by class or creed, race, gender or age. Learners in Northern Ireland - and all of us are learners - experience a richness of diversity in a way that was hitherto impossible. While the world of electronic communication will never be a substitute for real-life experience, nevertheless it has huge potential to overcome the barriers of time, distance and expense, to provide a cost - and time-effective way of extending the range of international contacts and experiences, to foster a climate of independent and life-long learning, to broaden horizons and to help develop a greater awareness and an appreciation of diversity in a new way. As Northern Ireland emerges from a period of conflict and of relative isolation, the educational experiences provided by the globalization of education should contribute to greater tolerance and mutual understanding and enable us to see ourselves in a global perspective.

The statements by the founder of IBM, Thomas Watson, in 1949 that, in his opinion, " ... there is a world market for maybe five computers", and by the president of Digital Equipment in 1977 at a Convention of the World Future Society that " ... there is no reason for individuals to have a computer in their homes" must surely make us very wary about making predictions. However, given the unprecedented rate of change of the past ten years and the certainty of a continuously accelerating process of technological advance, we can be sure that whatever we envisage for education will be exceeded and that globalization will extend the boundaries in ways that could never have been anticipated. We can also be sure from our own glimpses into the future that these changes and developments will be both life-enhancing and mind-expanding.

Education Law in 2020

Laura Lundy

Where will education law be in 2020? The bleakest scenario for those involved in education would be one where teachers are working to comply with a mountain of legal regulation, glancing over their shoulders because of a constant threat of legal action and conscious about the potential legal implications of every act and omission, remark or form of physical contact with pupils. Is this likely to occur? Hopefully not. However, the only thing that can be predicted with any degree of certainty is that the law will play a greater role in schools in the future than it does now. This has been the trend for the last ten years and it is one which will continue for the foreseeable future. The legal invasion of schools is unstoppable. Areas of education which were previously immune from legal intervention are now heavily regulated and litigated. There is perhaps no better example of this than the rules in relation to the statutory curriculum. In 1944, commenting on the new Education Bill, a leading educationalist, H C Dent declared that: "What we do not want is lessons laid down by law". Today we have primary legislation detailing not just the subjects but the specific topics which must be taught in schools. Twenty years ago the law simply guaranteed a child a free school place. Today, an entire tranche of the statute book is devoted to working out how places in popular schools are distributed. The key question and focus of this paper is to examine how much further the law can go and to attempt to identify the areas where this growth will take place.

The emergence of the rights of the child.

In the short term the feature of education law which is most likely to succumb to change is in relation to the legal status afforded to pupils. All of child law (with the exception of education law) has as its primary focus the rights of the child. The landmark legislation of the last decade, the Children (NI) Order 1995, is centred upon the 'welfare principle' which requires decisions affecting children to be made according to their best interests. Education law stands alone in this regard by placing the bulk of rights in the hands of parents. The dominance of parental rights is a direct result of the Conservatives' drive to increase 'consumer' rights in education but which then defined the consumer as the parent. The problem is that, while parents are often best placed to act as advocates for their children, children's interests and wishes are not always identical to that of their parents. Current educational provision is undoubtedly in breach of Article 12 of the United Nations Convention on the Rights of the Child (UNCRC), which requires that children have their views taken into account in relation to all matters affecting them. The UNCRC's monitoring committee highlighted, in 1995, deficiencies in this regard in relation to the lack of representation of pupils on school councils, the treatment afforded to children who are excluded from school and provision for children with special needs. Human rights issues are set to receive more attention generally as a result of the establishment of the Northern Ireland Human Rights Commission and implementation of the Human Rights Act 1998 in October 2000. In this context, it is not difficult to envisage that the next twenty years will witness a shift in the focus of regulation from the rights of parents *vis a vis* the school to the rights of the child independent of both.

Litigation

Litigation involving schools is on the increase. In the past ten years there have been cases on issues which were unheard of ten years before (such as the awards of damages arising from a school's failure to prevent bullying). Litigation in the United Kingdom often shadows that of the United States where it sometimes seems that every inconvenience results in a law suit. A good recent example is a school which had to pay \$2000 to a pupil

because the teacher had confiscated and then mislaid a complete set of Pokémon trading cards.

Moreover, the Northern Ireland population is thought to be more litigious generally than our counterparts in the rest of the United Kingdom. Hence the higher car insurance premiums, which are a knock-on effect of the various whiplash suits which are lodged when a car is rear-ended. Education is not unaffected by this litigation-happy attitude - most Northern Irish teachers can recount a story where seven year old Johnny (or his mum or dad) has threatened to sue them. The rise in legal actions is undoubtedly tied into the financial implications of going to law. In particular, publicly-funded legal aid is now available to children in their own right (i.e. not subject to a parental means-test), a position which opens the gates to a flood of legal actions concerning children. Although the legal aid system is currently under review, one of the key proposals is to introduce conditional fees (where the lawyers only get paid if they win). This arrangement is one of the reasons for the meteoric rise in US litigation and might act as a catalyst for a similar growth here.

What types of action might schools be facing in 2020? One area where the seeds have been sown for a major harvest of litigation relates to teaching quality. A landmark House of Lords' decision (*X v Bedfordshire County Council, 1995*) opened the possibility of local education authorities being held liable in negligence for a failure to identify and provide appropriately for special educational needs. The courts have grappled with the inherent difficulties in such actions (namely establishing that the school was at fault and determining what would be appropriate compensation for the damage). Following on from the Bedfordshire decision, education lawyers lodged a series of test-cases involving children with high intelligence quotients who failed to achieve expected grades in schools which were 'failing' inspection reports (see for example, O'Sullivan: "D? E? Get me a lawyer", *The Independent* 20 May 1997). These claims are in their early stages of development but twenty years from now could be the norm. What is perhaps most worrying about this for teachers is that it is their actions in the classroom today which might be scrutinized in 14 years time when a child has left school and is in a position to lodge an independent action.

Another area where schools are likely to see increased litigation is in relation to allegations of discrimination. Equality issues have had a high profile in Northern Ireland largely as a result of the public focus on religious discrimination. One consequence of this is that the average person is fully conversant in the language of discrimination. This can translate into a tendency to claim discrimination every time a person experiences differential treatment which they do not consider to be fair. The reality is that unlawful discrimination only occurs where the treatment is a result of something which society as a whole (and not just J. Bloggs) deems sufficiently unacceptable to prohibit by law such as religion, sex, race or disability. However, these categories are on the move. For instance, the Northern Ireland Act 1998 has introduced a new statutory equality duty on public authorities in a range of areas include age and sexual orientation. The legal frameworks are in place to facilitate allegations of discrimination and people are increasingly inclined to use them. In the near future schools can expect to deal with a range of anti-discrimination issues including: girls wanting to wear trousers and boys to have long hair or earrings; travelling children to be treated in the same manner as settled children; ethnic minority children to be taught their first language in school; and the primacy given to Christianity in our schools to be queried. There will be many positive things to be gained by this enhanced attention to equality. The danger is that the teachers who have to work in a politically-correct classroom will feel so restricted in their speech and actions that it inhibits their natural behaviour and preferred classroom demeanour.

The final issue which might be anticipated to become more litigious is in relation to parental control over the child's day at school. Twenty years ago it would have been rare for a child to be on a vegetarian diet or for a parent to have lodged an objection to the use of corporal punishment. In the future there will be other issues - philosophical, religious or simply political - where parents will insist that their child receives or does not receive the same treatment as his or her class-mates. There are already a number of issues surfacing in relation to the provision of sex education. Unlike England and Wales the

issue in Northern Ireland is completely devoid of regulation - a position which is an open invitation to litigation. Moreover, there are a whole host of other moral issues which may culminate in litigation: parents who do not want children to learn about evolution; parents who do not want children to participate in cross-community contact schemes under EMU; parents who do not want their children to read certain books which feature people/religions that the parent is hostile towards.

There are also more general situations when parents will object to the child's participation at school. The recent withdrawals of pupils in response to Martin McGuinness's appointment as Minister for Education are perhaps a fore-taste of what is to come as are the protests which occur outside Catholic schools which have invited the RUC to talk to pupils about drugs. A feature of the next 20 years will undoubtedly be a more politically active body of parents who are prepared to take a public stand against their child's school on an issue on which they have strongly held beliefs. Some of these incidents will undoubtedly end up in court, particularly now that it will be possible to go to the High Court in Belfast and argue that there has been a breach of Article 2 of Protocol 1 of the European Convention on Human Rights - the right of a parent to have his or her child educated in accordance with his or her religious or philosophical convictions.

Regulation

Education statutes seem to have grown like Topsy since 1989. In 1986 all education legislation was able to be consolidated in one order, the Education and Libraries (NI) Order 1986, which has a total of 157 pages. Since then there have been six education orders. The Education Reform (NI) 1989 Order alone runs to 202 pages. However, the real growth in regulation is to be found in delegated legislation and in particular in the regulations which flesh out the detail of the law which is found in the Orders. There is now statutory provision where it would never have been envisaged. The example of the curriculum was given earlier. Another case in point is the rules in relation to detention, previously unregulated and now covered in detail by article 5 of the Education (NI) Order 1998. Why so much legislation? Statute law serves a variety of purposes. For a start legislation is seen to be the quickest and most effective way to deliver a policy objective. In the 1960s, the move to comprehensive schools in England and Wales was delivered by a government circular. That would be unthinkable today where manifesto promises eventually translate into legislation. For example, the 1997 Manifesto promise to raise standards in school eventually led to the School Standards and Framework Act 1998. This includes provisions on school development plans and target setting which now form part of the Education (NI) Order 1998. It can be anticipated that in today's rights-based educational environment new government policies (whether originating at Westminster or the Northern Ireland Assembly) will be implemented in a legal framework rather than by a departmental circular.

Legislation is not just used pro-actively to deliver policy. It is also commonly used to plug 'litigious gaps' that is, to introduce uniform practice where there is a threat of public resources being used to defend court actions. The various rules on school discipline are a prime example of this. Corporal punishment was abolished in the wake of *Campbell and Cosans v United Kingdom* a decision by the European Court of Human Rights. It has since been deemed necessary to introduce legislation which defines the circumstances when it is appropriate for a teacher to restrain a pupil physically. Schools exclusions have gone down the legislation route for similar reasons. What is missing is some form of legislation defining the general authority of a teacher to impose disciplinary measures. This was called for in the Elton Report (1989). Such a power would usefully clarify the extent of teacher's authority and in particular whether a school has the power to discipline for behaviour occurring outside school or for actions (e.g. smoking or an outrageous haircut) which a parent expressly condones.

The final area where an increase in legislation can be anticipated is in relation to provision for children with special educational needs. The area is already subject to fairly extensive legislation in the Education (NI) Order 1996 yet the detail of how the rules are implemented remains in a non-legally binding Code of Practice. The chances of litigation

in this area are high since parents of children with special needs may have very strong feelings as to what is appropriate for their child. The most significant issue facing government right now is the whole issue of resources *versus* needs. There has been case law which suggests that once a child has a need, an education authority must meet that need irrespective of the resource implications. However, if the judicial trend of prioritizing need over cost continues, there will almost certainly be a re-evaluation which will result in legislation proscribing how the limited pool of public resources should be allocated. One issue which might receive special treatment in this context is the legal presumption that a child with special needs should be educated in a mainstream school. The current provision is qualified by the ubiquitous qualification: "... insofar as this is compatible with efficient education or the efficient use of resources". The rights of disabled people may advance quite dramatically in the next ten years or so. Accompanying this may be a recognition that the right to receive an education alongside one's peers is not one which can be set aside on economic grounds alone.

Education about law

The focus of this paper is on the law which relates to education. However, the author would not wish to give a paper which casts an eye into the future of the relationship between law and schools without mentioning something about education about law. The current position is that, apart from the odd A-level class, students can go all the way through school without learning any law. One US commentator drew an interesting analogy between a lack of education about law in schools and sending children into a baseball game without having explained the rules. Moreover, article 4 of the Education Reform (NI) Order 1989 requires schools to prepare children for the 'responsibilities and experiences' of adult life. What adult has not been involved in a legal transaction (e.g. house purchase or employment contract) or dispute (e.g. complaints about faulty goods or services), sued or been sued? Change is afoot. In England and Wales, the publication of the Crick report has resulted in civic education being brought into the heart of the statutory curriculum. There are various discussions and pilot initiatives underway in Northern Ireland as well. Twenty years from now, it would be nice to see pupils emerging from school knowing not just their legal rights but their responsibilities at law and understanding the importance of law as a mechanism in the regulation of social behaviour in a democratic society.

Conclusions

Will an increase in legislation and litigation be good for schools in the long run? There is no doubt that increased legalization can produce positive benefits such as advancing children's rights or providing teachers with protection from personal liability. Beyond this, an increase in regulation and litigation would be welcomed by no school and would undoubtedly have adverse effects on teacher morale at a time when surveys show it to be at an all time low. One possibility is that a rise in litigation would produce a backlash effect from both the judiciary and government. The courts have already shown themselves willing to protect the broader public interest in the education system by refusing to award compensation to individuals whose educational needs have been neglected. Likewise, prior to the 1997 general election the Labour government declared that they would act to give teachers a statutory indemnity if the litigation around poor quality teaching is ever successful. It is understood that there are broader public interests at stake: being taught by an unhappy teacher or having no teacher at all is in no child's interest. In conclusion, it is to be hoped that our schools do not evolve into institutions where disillusioned teachers are forced to teach, talk and act uniformly to stave off potential litigation. Instead, it is to be hoped that what emerges over the next two decades is a healthy balance between children's rights and parent's rights in a legal framework which facilitates rather than hinders teachers in carrying out their key function: children's education.

The Education Revolution

A 2020 Progress Report

Tony Gallagher

On the cusp of the new millennium education was on the verge of a revolution even though traditional practices and constraints remained predominant. As is so often the case, however, once the ramparts of tradition were breached then the pace of change proceeded inexorably.

The three key elements of the revolution involved the recognition that:

- learning was a genuinely lifelong process;
- it was absurd that 'schools' (apologies for using this now archaic term) were opened only between 9.00am and 4.00pm, and were closed for most of the summer months; and
- that it was equally absurd that learners should proceed through their education as an amorphous age-based mass, with examinations attempted on a schedule designed to meet the needs of administration rather than the needs of learning.

The reasons for the revolution are a little more complex and involved an admixture of innovation and, ironically, tradition. Central to it all was the onward march of information and communications technology (ICT). By 2000 all 'schools' were ICT resourced and linked to the Internet, although most knew that the computers available to many young people in their homes were more advanced than those available in 'schools'. However, it was to take a few more years before all pupils had ready access to computers in their day-to-day activity. It was only when this happened that teachers started to recast fundamentally their approaches to teaching and learning.

Two consequences were to follow. The first was that a realization of the patent absurdity of leaving this learning resource idle for most of the time. The rhetoric of lifelong learning had been around for years, but it only started to become a reality when the 'school' doors were thrown open. Time was to be subverted in two ways: 'schools' were open all hours and all year, and 'schools' were no longer just for the young, but for all ages. Hardly surprising, then, that 'schools' were to become popularly, and later officially, designated as community learning centres. For that is what they now are, places of learning for all.

The second consequence might be thought of as the liberation of the individual learner. It has always been known that pupils proceed at different paces, and that they had different strengths, weaknesses, aptitudes and interests. However, despite this knowledge, for years the education system privileged particular modes of learning to the exclusion of others. Furthermore, since it was assumed that, for most people, education would have to be squeezed into a twelve or fourteen year window, it was imperative that specific qualifications were taken, or at least attempted, at specific points to ensure orderly progression and development.

However, when ICT became a ubiquitous feature of classroom learning then its allowed for learning to proceed at a pace and in a direction that was appropriate for individual learners. The electronic trace left by individual learners provided a simple basis for monitoring and evaluation. It was also to lead to an alternative vision of examination presentation.

This occurred when people realized the significance of a long-standing practice in a specialist area of education. Unlike the stultifying rigidities of traditional school education, music education had long been based on quite different principles. As young people learned to play a musical instrument a graduated series of examination steps opened out before them. However, there was no expectation or assumption that these examination grades would be taken at fixed points or at a fixed rate. Rather, learners trained towards the next grade and took the examination when they and their teachers felt they were likely to pass. The relevance of this for the individualized learners in the community learning centres was obvious.

With no fixed end-point for one's education and a technology which permitted, even encouraged, individualized learning paths, then it was recognized that examinations should and could be taken at a pace appropriate to the needs and progress of individual learners. But this was to lead to further developments, not the least of which was the flexible classroom.

There are many reasons why people, young and old, should enjoy the company of their peers. This, after all, was the *modus vivendi* of age-based classroom organization in the old schools. In the new community learning centres our sense of peer groups took on new and innovative meanings. For many purposes class groups were organized on an age-basis, but it was realized that there was no necessity for the exclusive use of this form of social organization. Indeed, with individualized learning there were many contexts when multi-age classes made more sense from the perspective of teaching and learning. The flexible classroom not only permits this flexible organization, but actively encourages it.

These two steps - the re-designation of schools as community learning centres and the liberation of the individual learner - produced, as we have seen, a revolution in educational assumptions that fundamentally changed the way we thought of the processes of teaching and learning. Most particularly, they provided the basis for a meaningful approach to lifelong learning and created a situation where education came to be seen as a journey of discovery rather than a race. The distinction between full- and part-time study collapsed, as everyone became permanent part-time learners. Other archaic notions to disappear were those of the 'compulsory period of education' and the 'school leaving age'. Both concepts make as much sense to current generations, as did the idea, for an earlier generation, that the priority of schooling was to identify a ruling elite as early as possible.

But as we know, revolutions are revolutions precisely because of their wider, often unintended and certainly unforeseen consequences. So, too, was it to be with the education revolution.

The wider impact of the education revolution was in its social consequences. The flexible classrooms in the community learning centres reconnected the generations in a way that was not thought possible in the latter half of the last century. The new approach to learning and the social organization of learning groups provided numerous points of common interest and conversation. To the delight of teachers and, no doubt, of learners, an additional enhancement was provided by the interaction between the creativity of the young and the experience of the not-so-young.

Community learning centres, in other words, were to become the focal points of new communities. And this despite the fact that much of the technological basis of learning could, if desired, be accessed from homes. One of the Luddite fears of technophobes had been that the individualization of learning would produce a society steeped in anomie, a place where, in the paraphrased words of a long-forgotten British politician, there would be no such thing as society. As we now know, the technophobes seriously underestimated the resilience of society and the buzz we gain from community. As we now know, the physical space of the community learning centres became the centre of the buzz.

However, there were additional benefits. A predicted and predictable new form of communal interaction was through the spread of virtual communities. The learning resource centres allowed us to break through the barriers of time and distance. In the latter years of the last century the esoteric philosophers of postmodernism had grappled with the simultaneity of the apparently contradictory processes of globalization and localism. The community learning centres, with the reconnection between generations locally, and the interconnection between peoples virtually, provided the context where this apparent contradiction was resolved.

Little wonder then that the community learning centres took on new and innovative roles which contributed further to our sense of interconnectedness. Perhaps the most significant was in the reinvigoration of democracy. The first hints of this were provided by the early experiments in Internet voting. No longer was the voting booth a physical space to be staffed and monitored, and only open for a short period on a single day. Internet voting allowed for more flexible, and hence ready, forms of participation. As it became easier to vote, so more people did. But when people used the community learning centres as the place where they cast their vote, increasingly they took advantage of the physical and virtual space they provided to engage with their fellow citizens on issues of the moment.

From this it was but one small step before the renewed citizenry demanded the right to participate in more active ways. Consultation between citizens and their representatives widened as e-democracy spread. Once again the community learning centres proved to be the nodal points of this renewal, the places where people rediscovered the value of conversation, discussion and debate. But crucially these were also the places where information, knowledge and analysis were the privileged domains. This encouraged the development of a democratic discourse that was rooted in dispassionate dialogue rather than polemic.

There have been numerous revolutions in Europe over the past several hundred years. In 1789 the French peasants overthrew the heir to the Sun King. In 1848 students from the 'young' nations pierced the heart of absolutism, even though time was to pass before life finally drained from the corpse. In 1917 the Bolsheviks opened the door to actually existing socialism, but by 1989 the people of east and central Europe were to close it. In each case the effects of the revolution have been profound and long-lasting. They have produced challenges to received wisdom of such effect that, even when the revolutions failed in their immediate purpose, their effects endured and recast the way we think of the world.

So too with the education revolution of the new century. It is not possible to identify the leaders of the revolution, nor is it possible to point to a defining moment when it was launched. But, as with the previous revolutions, its effects have been to turn our world upside-down, to recast our sense of self and community and to produce a totally different world of teaching and learning. We have seen also that it has reinvigorated our sense of democracy and created more active citizens. Ironically the education revolution was enabled by technology, although its effects went far beyond the realms of silicon. But this is ironic because so many predicted quite a different future, where technology would envelop us in silence and cut individual off from individual. In fact the community learning centres have produced new forms of interconnectedness within communities, across generations and over virtual space. The world has not descended into monastic silence, but has seen an emerging babble of voices where the most commonly heard words are 'education, education, education ...'.

Education for Living and Working in 2020

John D'Arcy

Changes in the way we live, work and learn are inevitable. These changes will pose challenges and, in many cases, threats to our existing systems, procedures, policies and practices. The growing importance of Northern Ireland becoming a knowledge-based society has major consequences for our education system. In some ways, these consequences pose even greater challenges than those currently facing our system as they strike at the heart of the models of education with which we have been familiar for many years.

Our lives and working patterns are bound to change with both emerging technologies and changing markets for the skills of our people. These changes will require us, as a society, to re-focus on the skills with which we need to equip our citizens. The challenge to our educators and policy makers at every level becomes more difficult over time. New targets and demands, with shorter lead times, will be the flavour of the month to come for some time - if not for ever more.

Visions of the future and how schools and our education system must respond

Richard Scase (2000) in his book *Britain in 2010* presents three scenarios for living in the future. One scenario involves Rachel, working in 2020 as an advertising executive, running her own business, a graduate in 2003. Unlike her parents, she did not go to university except for some self-development and personal creativity courses. Instead she studied from home while working part-time in a supermarket. Using the Internet she took a portfolio of courses, selected from some of the most prestigious universities in the world. Most universities will operate as virtual organizations. If they have a residential component, it is for short-term 'creativity programmes' where students have the opportunity to engage in face-to-face dialogues with tutors.

Another scenario highlights the situation of a young couple with a child of 10 attending a school where all the children are expected to have their own computers. A key question in this scenario is how governments can avoid the inequalities that could limit the educational attainments of children in low-income households without access to computers or those other technologies that will increasingly underpin the educational process.

Preparing for the workplace of 2020

The nature of the working economy is very different in the UK to what it was 25 years ago. It surprised me to find out that, across the UK, more people now work in Indian restaurants than in shipbuilding, steel manufacturing and in coal mining combined. In addition, there are some three times as many public relations consultants as coal miners. For Northern Ireland too, the process of change towards a predominantly service and information based economy seems inevitable.

A key goal of our education system to date has been to develop young people for a 'steady' job, probably with a small number of employers over a lengthy career. As we move to 2020, the predictions are that the greatest number of jobs will be what has been termed 'non-standard employment'. This category includes terms such as part-time work, flexi-hours and self-employment. In the professional sectors, the growth of independent consultants, freelancers and associates is all but certain.

These changes can be viewed positively and negatively. In a positive sense, such employment could offer people the opportunity to earn money in a way that is compatible

with other commitments, such as bringing up a family. The other side of coin could be that the future labour market will see the continuation of current trends with greater proportions of these low-paid, non-routine jobs being undertaken by women, school leavers and older, pre-retired men.

The growth of self-employment will continue but predictions suggest differences across economic sectors. It has been predicted that the numbers of self-employed will be greatest in the media and entertainment industries, hotel, catering and leisure and in the financial services sector. A survey by Bacon and Woodrow in 1999 indicated that the number of those in manual occupations becoming self-employed increased by more than 450% between 1979 and 1998. Over the same period, the self-employed among managerial and professional workers grew by almost 300%.

Long term careers and employment in a small number of large organizations are likely to decline as employees are forced to become more adaptive, shifting between companies with greater frequency as well as embarking upon periods of self-employment. Entrepreneurship is likely to be more pronounced as businesses continue to outsource many of their functions.

Outputs from our education system

A major requirement of the education system is to develop the intellectual capital upon which corporate creativity and innovation can be developed. Clearly there will be a requirement for technical skills as well as traditional skills. However, it will also increasingly be essential for our schools to produce effective inter-personal skills.

For children with access to a computer at home, the seamless learning experiences of school and home will promote greater independent learning skills and the self-management of time. These are qualities that will also be required by the organizations of 2020 - many of which are likely to be virtual. How educators manage to develop interpersonal skills at the same time as encouraging people to learn independently will be a real challenge. Notions of citizenship and values will add to the demands on a complex system. Clearly from the predictions, young people will need to be skilled entrepreneurially in order to cope with the rapid change and fluidity within the job market of 2020. Developing understanding and competence in the following will therefore become essential:

- ⊙ Individuality
- ⊙ Choice
- ⊙ Mobility
- ⊙ Identity
- ⊙ Independence
- ⊙ Anxiety and risk
- ⊙ Creativity.

Changing curricula

In 2000, The Northern Ireland Council for Curriculum, Examinations and Assessment (CCEA) launched a consultation on proposals for what should be taught in our schools. They told educators, politicians and industrialists about plans to move away from a subject-led curriculum to one based on skills, relevance and enjoyment, emphasizing personal development, citizenship, employability and information and communications technology (ICT) skills.

These proposals were the outcome of considerable research and consultation undertaken by CCEA including contributions from both local and international experts, and uniquely, a cross section of 3,000 Northern Ireland school pupils. Such changes and reviews are

likely to become more regular, faster and *required* if we are to equip properly our young people with the skills they require for life and work in 2020.

Learning throughout our lives

Lifelong learning will continue to dominate our culture and society. Already many organizations including Ford are establishing their own universities. In the United Kingdom, the University for Industry will co-ordinate networks of advice centres - and on-line consultation - so that individuals can develop portfolios of competencies which they will require because of changing job and skills needs.

The provision of education and learning has traditionally been packaged and managed within institutions like schools, colleges and universities. These will become more widely dispersed, informal and more learner and employer-driven. This means, in a divided society, those who are socially, economically and culturally excluded are less likely to benefit than others. Domestic computers and digital interactive television (already here!) will allow citizens to access information from an enormous variety of locations and sources.

Technology in the learning process

Computers will be at the core of the pupil's learning process. More time will be spent working on projects at home and attendance at school may be more flexible. Assessment too will be more technology focused. The Education Technology Strategy for Northern Ireland recommended that CCEA should explore the potential for the use of ICT in examinations. In response to this recommendation CCEA initiated a study to look at the work already done in this area and to highlight the work that could be taken forward by CCEA with a pilot project in paperless examinations.

If development work is successful, CCEA will be in a position to conduct major examinations on-line by summer 2006. The system should be well-established by 2020 with exam papers to schools on-line, candidates undertaking exams on computer, having their work marked electronically and exam boards reporting results back to schools and pupils electronically.

It is recognized that the embracing of technological advances in learning and training delivery is key to success in the global knowledge-based economy and it is estimated that 92% of all organizations expect to introduce e-Learning in the next 12 months.

Case study

MIT is a world-renowned institution – well established and with an extensive range of graduate and post-graduate programmes. However, in its approach to the education-business interface, its Media Lab is somewhat different. Although it offers a range of post-graduate research opportunities at doctoral and masters levels, the set-up is stunningly different to what many institutions are used to. For example, how does 95% private sector funding of a \$35,000,000 budget sound? On top of that, how does the idea of the sponsors not directing the research programmes within the Media Lab? And how about an environment in which all sponsors can view, experience and benefit from all of the various research programmes. Fantasy Island? Definitely not, as my recent study visit, in association with BDO Stoy Hayward and Ulster Business magazine, to the MIT Media Labs showed.

With a list of sponsors reading like a Who's Who of corporate life, the Massachusetts Institute of Technology's Media Lab is a very different kind of educational facility. Among its 175+ corporate sponsors are BT, eircom, Intel, Lego, Mastercard, Motorola, Swatch, Compaq, Eastman Kodak, Ericsson, Ford, McDonald's, Nortel, Sainsburys, Viacom, General Motors, IBM, Johnson and Johnson, McCann-Erickson Worldwide, British Airways, Levi Strauss, DuPont, Marks and Spencer, Mars, Mattel, Microsoft, Shell,

Toshiba, Saab, Volvo, Walt Disney, Sega, Sony, Toshiba, Kraft Foods, Warner Brothers and Nickelodeon.

The process for sponsors can be summarized as seeing the concept, thinking about the product and hopefully getting to market with the next big thing. The technology transfer process has given rise to the exploitation of the sensor chair, which uses a range of remote sensors to sense movement multi-dimensionally. A demonstration by magicians Penn and Teller in the form of a musical performance helped a leading automobile company to take this concept and its underlying technology and to develop it into a safety device for automobiles which can sense the size and weight of a front seat passenger in order to provide a more tailored and safe response from an air bag as during a car crash.

The Media Lab has a multi-disciplinary approach with research consortia with stunningly obvious names – Digital Life; News in the Future; Things That Think. Key projects focus on education and learning, which help to distil the knowledge, and technology developed but also enhance their own thinking about how people can and do use their technology in the real world.

A commercial product from the MIT Media Lab is Lego Mindstorms through which children get intellectual stimulation and development from remote programming what looks like an enlarged Lego 'intelligent brick'. Mitchell Resnick, a former student of Seymour Papert whose Logo programming language and turtles will be familiar throughout the education system in Northern Ireland, is a key player in this development. Through 'toys' like this children acquire engineering concepts at a young age, learning about feedback and control and see physical responses to the code generated by them on a computer. Such code or programs are sent to the brick which has a range of different sensors and is input/output driven device.

The academic staff at MIT Media Lab come from a wide range of disciplines – not just 'techies' as might initially be expected. They include an eclectic mixture of people – chemists, physicists, computer scientists, psychologists, educators, engineers, cinematographers and stage designers. The research focus is a blend of real world with fantasy; in other words, trying to answer the question: "What is the world going to be like in 20 years time?"

For example, in the News of the Future group, the Media Lab is looking at how news, as information, is developed and understood. Technology is now being used to add context and additional information – natural language processing is the technical challenge. The notion of consumers also being producers of news is being progressed across a range of consumers from primary school children to senior citizens – lifelong learning.

The Junior Journal project involves some 2,800 children across 129 countries. Using discussion forums they have discussions about current issues locally, nationally and internationally. Controversial issues are often raised and the children, as editors, have to make decisions leading them to more advanced discourse than might be expected of their ages.

Another concept is Explanation Architecture in which the aim is to improve individuals' skills at arguing. This focuses on multiple ways of interpreting information – argument rather than conflict. Reasoning is an essential skill – for scientists or business people - and MIT Media Labs use technology to facilitate this.

The challenge for the Lab in outreach to schools has a number of strands. For example, getting technology, access and promoting a culture of allowing this type of interaction which by its very nature is open-ended and not teacher-driven with known answers. In some ways, it could be described as curriculum versus exploration. This provides a challenge not only to the pupils but also to the teachers. With MIT Media Lab establishing its European hub in Ireland, one wonders how its influence will impact upon our education system by 2020.

Conclusion

What is taught in our schools must reflect the changing needs of our young people, our society and our economy as well as emerging technologies. We must strive to develop young people as individuals and give them the skills to flourish in a changing world. This can only be achieved with a realization that change is inevitable and that we, as parents, employers, teachers and policy-makers, have the commitment, energy and vision to respond to such demands for change in a positive and proactive way for the benefit of our society.

The Principle of Subsidiarity and the Governance of Schools

Bernard Cullen

It is not often that a piece of legislation, let alone an international treaty, gives particular prominence to a philosophical principle. This was the case, however, with the Maastricht Treaty (1992), which attributed special importance to the principle of subsidiarity. In the Preamble to the Treaty on European Union, the signatories resolved 'to continue the process of creating an ever closer union among the peoples of Europe, in which decisions are taken as closely as possible to the citizen in accordance with the principle of subsidiarity'. As this constitutional aspiration indicates, the principle of subsidiarity is a philosophical principle concerned with the mechanisms of democratic decision-making. It was much emphasized by the supporters of the Treaty (principal among them its chief architect, the French President of the European Commission Jacques Delors), as they combated the widespread resistance to ratification of the Treaty, which resistance was itself based on a popular feeling that the European Union was becoming a centralizing super-state. "Save our pint" and much concern about the shape of bananas were some of the popular expressions of resistance (then as now) to 'interference from Brussels'. In this paper, I shall examine the principle of subsidiarity, including something of the history of the principle and how it has been applied to constitutional theory and practice within the European Union in recent years. Finally, I shall argue for the application of some of its insights to the issue of the governance of schools, with particular reference to Northern Ireland.

So what exactly is the principle of subsidiarity? Although it first came to the widespread attention of the public around the time of the Maastricht Treaty, it has a long history in Catholic social philosophy, with its lineage commonly traced back to the social teaching of Thomas Aquinas. While it is almost universally acknowledged that the principle is an ambiguous one, it is broadly concerned with the limits of the right and the duty of the public authority (however understood) to intervene in the social and economic affairs of individual citizens or groups of citizens. In the last century, against the background of bolshevism in the Soviet Union and fascism in Italy, the principle was taken up again and defined by Pope Pius XI in his encyclical letter *Quadragesimo Anno* (1931):

It is an injustice, a grave evil and a disturbance of right order, for a larger and higher association to arrogate to itself functions which can be performed efficiently by smaller and lower societies. This is a fundamental principle of social philosophy, unshaken and unchangeable. Of its very nature the true aim of all social activity should be to help members of the social body, but never to destroy or absorb them ... Let those in power, therefore, be convinced that the more faithfully this principle of subsidiary function be followed, and a graded hierarchical order exist between various associations, the greater will be both social authority and social efficiency, and the happier and more prosperous the condition of the commonwealth (paras 79-80, pp 34-5)

The principle of subsidiarity is based upon a particular view of the nature of the human person, the nature of the state and society and the relation between them, and the role of the individual citizen within the state. It addresses fundamental issues of democracy, and in the way in which I wish later to apply it, interesting issues of local democracy. In the philosophical tradition established by Aristotle, the human being is essentially a social person (*zoon politikon*), who achieves his or her perfection only in being enmeshed in a society. In the modern industrialized world, individuals all live within states. But in its mode of being, the state is accidental, not substantial. The state has no primary role in human existence; it exists only to help the persons who live within the territory to realize their potential as human beings. This is the meaning of the Latin word *subsidium*: aid, help or support. Normally, this aid is indirect: the state enables human flourishing by

tending to the complex of conditions that enable the subordinate societies and the individuals to care for themselves. This complex of conditions is what has been traditionally referred to in Catholic social teaching as 'the common good'.

This theme was taken up again by Pope John XXIII in his encyclical letter *Mater et Magistra* (1961): the common good embraces: "... all those social conditions which favour the full development of human personality" (para 65). The encyclical *Pacem in Terris* (1963) explains more explicitly and concretely what is involved in the total of these conditions: "It is agreed that in our time the common good is chiefly guaranteed when personal rights and duties are maintained. The chief concern of civil authorities must therefore be to ensure that these rights are acknowledged, respected, co-ordinated with other rights, defended and promoted, so that in this way each one may more easily carry out his duties" (para 60).

The Catholic tradition recognizes that the principle of subsidiarity can have a positive as well as a negative emphasis. To emphasize the negative side, it enjoins the public authority not to intervene in the 'private' affairs of citizens unless it is necessary in order to safeguard the common good, however that is understood. On the other hand, the principle recognizes (especially as the twentieth century progressed) that in many instances in which good and conscientious citizens (for whatever reason) are unable to fend for themselves, the public authority has an obligation to assist human flourishing by the establishment of an appropriate infrastructure that will enable everyone to thrive. The encyclical *Pacem in Terris* offers (para 64, perhaps with one eye on the spreading attractions of communism in the Third World in the 1960s) an extensive list of physical and social benefits to be guaranteed by the state and to which every citizen is entitled: the list includes roads, transportation, communications networks, water supply, housing, health and education services, facilitation of the practice of religion, recreational facilities, social insurance schemes, and participation in cultural life. It can be seen that this list of benefits mirrors quite closely the United Nations International Covenant on Economic, Social and Cultural Rights (1966). However, it should be emphasized that the role of the state is seen as a strictly enabling one, supplementing and complementing private endeavour and providing the infrastructure upon which individuals can attain their full development. In principle, any individual or social good that can be attained by individuals or groups of individuals (so-called lesser societies) should be left outside the sphere of state intervention or control.

The principle has clear applicability to a wide range of issues of social organization. For example, a centrally planned (or so-called command) economy determining prices, wages, production and investment quotas and the like, violates the principle of subsidiarity, for the public authority would thus be making decisions that should more properly be the concern of individuals or private groups. On the other hand, a regime of central economic planning that determines monetary and fiscal policy, complete with anti-monopoly regulations and the like, which undoubtedly determines the general economic environment within which individuals and groups can flourish, is clearly consistent with subsidiarity.

It is generally acknowledged by commentators that the principle of subsidiarity has been operational within the Common Market since the time of the Treaty of Rome (1960) that established it, guiding judgements as to which matters of public policy were best left to the constituent member states and which could only or could best be decided by pan-EU legislation. With the development of the Single European Market, however, and the shared concern that no member state or states should be permitted to gain unfair competitive advantage by means of divergent national legislation, the view became accepted that an increasing proportion of legislation – for example, legislation governing environmental protection, food safety, and employment practices – should be Community-wide legislation binding on all member states. Hence the growing need to separate out as clearly as possible those matters upon which the Council of Ministers should legitimately and reasonably legislate from those matters that could safely be left to be decided upon at a national or more local level of authority.

The principle of subsidiarity was, therefore, formalized in the Maastricht Treaty as a guiding principle of the EU's political and legal framework: "In areas which do not fall within its exclusive competence, the Community shall take action, in accordance with the principle of subsidiarity, only if and insofar as the objectives of the proposed action cannot be sufficiently achieved by the member states and can therefore, by reason of the scale or effects of the proposed action, be better achieved by the Community" (article 3B). In other words, unless there is a compelling argument that given desirable objectives cannot be achieved by actions within the several member states, the Community will not intervene. Subsidiarity here means that decisions are to be taken at the lowest effective level of government, local, regional, state, national or European, thereby bringing decision-making as close as possible to the citizens who will be affected. Interestingly, the field of education policy is one in which the Treaty explicitly forswears any harmonization of national laws, confining Community activity to encouraging and supporting cooperation between member states (article 126).

The principle of subsidiarity addresses the age-old issue of the tension between the freedom of the private individual and the public demands of the wider community. In the modern constitutional state, individual citizens use their own free initiative to form themselves into social, cultural, economic, educational, religious or other kinds of associations, large and small. (For an outline and evaluation of Hegel's discussion of the pivotal role of these 'mediating' groups in the modern state, see Cullen (1988).) The proper role of these associations is distinguished from that of the state authority by application of the principle of subsidiarity, according to which the state should not control or regulate all aspects of individual and social life, but is obliged to enable groups at levels below the state to achieve their democratically expressed ambitions. The lesser groups should be assisted to achieve their legitimate objectives in their own fashion, rather than have one single straitjacket imposed on all. This presumption in favour of non-intervention is based upon a fundamental respect for the dignity or the worth of each individual citizen, very much along the lines of human rights theory. But it is easily recognized that an individual acting alone can in most cases do little: in the realms of health, education, transport infrastructure, etc., substantial achievements are only possible when individuals band together. In this process of banding together, there are inevitable compromises between the wishes of individuals and what become the collective wishes or aspirations of groups.

The wishes of some groups, and the impact of acting on those wishes, will be purely local. Some group decisions will impact upon many others who are not local. In thinking about the application of the principle of subsidiarity in this way, it can be used to determine which decisions are most fruitfully to be made by the mechanisms of local democracy and which are rather to be made by a more widely based collective (be it a state or a trans-national body). In the United States, for example, there is a strong tradition of very local democracy. The citizens of a township will typically vote on whether they wish to raise a specific local tax for the precise purpose of repairing the potholes in a local road. They sometimes vote not to. If the state of those local roads has little or no impact on others living outside the locality, this seems an appropriate level of decision-making: as close as possible to the citizens affected by the decision. Such a very local approach makes much less sense when the roads in question are used by a lot of travellers just passing through. And for this reason, interstate freeways, designed to facilitate travel through many localities and across great distances, are federally planned and financed out of federal taxes.

The appropriate level of democratic decision-making depends on the issue in question and specifically the way in which the issue impacts upon people. For example, it was agreed a long time ago by the member states of the European Community that environmental pollution recognizes no state boundaries, and that therefore environmental legislation should be a decision of the entire Community, binding on all Community citizens. But the principle of subsidiarity recognizes that many issues of policy should be matters for decision by each 'sovereign' member state, so as to reflect as accurately as possible the wishes of the citizens of that state. By extension, the issue in question could be for each region within states to decide, or for each local council area; or it could

reasonably be decided (and most accurately reflect the democratic wishes of the citizens affected) by testing the preferences of a quite small locality, however that locality is to be delineated. Apart from the US example quoted above, France, for example, has a tradition of elected assemblies for local communes; while England has a tradition of parish councils.

It can be seen that the debate within the EU, and specifically at this time within the United Kingdom, about adoption of the euro as a common currency superseding national currencies, is a debate about the most appropriate application to the issue of monetary policy of the principle of subsidiarity. This debate is a good illustration of the fact that the principle in itself cannot solve all disputes about the most appropriate level of sovereignty and democratic decision-making. In this regard it is no different from other philosophical principles. What it can do is establish a principled context within which the policy issue can be discussed and the dispute resolved. The debate on the adoption of the euro or the retention of sterling also illustrates well that such disputes about the application of subsidiarity very often involve an emotional attachment to the exercise of power, whether that exercise is real or illusory, rather than the dispassionate and rational weighing up of the balance of advantages and disadvantages for the generality of citizens affected.

The principle of subsidiarity is based on the principle (or assumption) that individual citizens *prima facie* (i.e. unless the contrary can be demonstrated) know best what is good for them. There are, of course, many uncontroversial exceptions to the principle of the primacy of individual choice: everything from the legal requirement to drive round Belfast City Hall in one direction only to the whole panoply of planning laws and regulations. In each such case, Parliament has agreed on behalf of the citizens that there are indeed good reasons for overriding the wishes of the individual.

The area of education is a special category of decision-making by citizens, insofar as parents conventionally decide on behalf of their children (in the case of primary and secondary schooling). Notwithstanding the emerging acknowledgement of children's rights in recent years, the principle of the primacy of parental choice is well embedded in European culture and is fairly uncontroversial. The principle is frequently overridden by representatives of the state (i.e., the citizenry as a collective). For example, children are commonly removed from their neglectful or cruel parents and taken into state 'care' by statutorily authorized social workers. There was also the recent case in which the conscientious wish of the parents to allow their Siamese twin children to die was overridden by the High Court, which ordered surgery to separate them. But the fact that this case prompted such widespread moral head-scratching only goes to demonstrate the strength of the general presumption in favour of parental choice in the disposition of their children.

Whatever else can be said about them, schools are powerful ideological forces in any society. Even with the most conscientious and actively involved parents, experiences in the classroom are likely to have lasting effects on the attitudes and preferences of most children. For this reason, the governance of schools (i.e., the issue of who runs the school, appoints the teachers, decides on the school's mission, ethos, and so on) is often fiercely contested, not least in Northern Ireland ever since its foundation. For the same sorts of reasons, the governance of schools in Northern Ireland is dominated by the main Christian denominations. To a considerable extent, this arrangement could be said to reflect accurately the principle of subsidiarity: to the extent that (until very recently, at least) the vast majority of parents in Northern Ireland proclaimed their allegiance, at least nominally, to one or other of those main Christian churches.

A brief topography might be helpful. So-called state schools are administered by the five education and library boards that together cover Northern Ireland. The boards of governors of most of these schools include, as well as representatives of parents, teachers, and the wider community, representatives of the 'transferors': viz., the Protestant denominations that 'owned' many (but by no means all) of the schools before they were transferred into state ownership. The other very large group of schools, covering roughly half of all the schoolchildren in Northern Ireland, is administered by the

Council for Catholic Maintained Schools (CCMS). The boards of governors of these schools all include clerical representatives of CCMS, usually based in the local parish, one of whom typically chairs the board. As well as these two big battalions, there is a small 'voluntary' sector, consisting principally of some of the Province's grammar schools. Finally, there is a tiny but growing sector of 'integrated schools', administered by the Northern Ireland Council for Integrated Education, which in order to qualify for public funding are required by statute to include minimum percentages of Protestant and Catholic pupils and staff.

It is worth examining whether the structure of school governance in Northern Ireland outlined above adequately reflects the current diversity of parental wishes. It is undeniably the case, as we emerge from a generation of murderous civil conflict, that large swathes of the working-class population have chosen to live and raise their families in communities characterized by one or other of the traditional religious affiliations, viz., Protestant or Catholic. That is certainly an understandable and indeed reasonable choice. However, largely because of this widespread territorial segregation, many thousands of parents find themselves locked into a system of school governance that they did not explicitly choose, namely one in which religious authorities have a great deal of power to influence the ethos of a school, the appointment of its staff, and all its activities. It could be argued that the preponderance of parents would indeed choose to be subject to such a system if they were asked, but there is a good deal of evidence (for example, dramatically declining church attendance) to suggest that a sizable minority of parents, at least, would prefer not to be subject to the prevailing carve-up of school governance in Northern Ireland, simply by dint of where they choose to live. Especially with the new devolved institutions, there is now both an opportunity and a responsibility to test parental wishes on this issue, by a judicious application of the principle of subsidiarity.

It is interesting to note that the Second Vatican Council's official *Declaration on Christian Education* (1965) emphasized the obligation upon the state to facilitate the realization of parents' wishes in this regard:

[Civil] society exists to arrange for the temporal necessities of the common good. Part of its duty is to promote the education of the young in several ways: namely, by overseeing the duties and rights of parents and of others who have a role in education, and by providing them with assistance; by implementing the principle of subsidiarity and completing the task of education, with attention to parental wishes, whenever the efforts of parents and of other groups are insufficient (Abbott 1966, 642).

The Declaration goes on to spell out some of the practical implications of this obligation:

Parents, who have the first and the inalienable duty and right to educate their children, should enjoy true freedom in their choice of schools. Consequently, public authority, which has the obligation to oversee and defend the liberties of citizens, ought to see to it, out of a concern for distributive justice, that public subsidies are allocated in such a way that, when selecting schools for their children, parents are genuinely free to follow their consciences ... [The state itself] should look after the health of students and, in general, promote the whole school enterprise. But it must keep in mind the principle of subsidiarity, so that no kind of school monopoly arises. For such a monopoly would militate against the native rights of the human person, the development and spread of culture itself, the peaceful association of citizens, and the pluralism which exists today in very many societies (Abbott 1996, 644).

Northern Ireland today aspires to be a pluralist society. The debate about whether or not such a genuinely pluralist society could better be fostered by the progressive desegregation of schooling in the region is beyond the scope of this paper. But I wish to make a modest proposal, in line with the principle of subsidiarity, that if implemented would have the great merit of being seen to match the realities of school governance more accurately to the stated democratic wishes of parents, by means of a form of

proportional representation. The unit of effective decision-making can be greatly varied, since most cities and towns in these islands are divided into electoral wards, which can be banded together in any reasonable way that will produce a finely-tuned account of local wishes. The same opportunities exist for taking the pulse of local communities in most states in the developed world.

Take as an example Catholic West Belfast, a community of almost 100,000 inhabitants that can be easily delineated on a map, due to well-established sectarian demarcation lines. That sprawling community can, of course, be broken down into many constituent sections, which is important for the implementation of the proposal. Currently, the parents living within that area have access only to schools that come under the CCMS umbrella, unless they make the considerable effort to send their children to a school located outside the area (with all the attendant dangers that this all too frequently entails). My proposal is that the government should offer the adult citizens of that area (and many others) a local plebiscite, asking them whether they wish to continue with the current monopoly situation of school governance, or whether they would prefer to have local democratic control over the management of their schools. In the latter case, the school would be administered by the education and library board and governed by a locally-elected board, just like hundreds of other schools in Northern Ireland but without the involvement of any 'transferors'.

The outcome of such a plebiscite, which could easily be repeated throughout Northern Ireland, is impossible to predict. It is reasonable to speculate, however, that a majority of citizens would vote in favour of the status quo, since that system has a good track record in many respects. But it is also reasonable to anticipate, given the well-documented shifts in attitudes to church authorities throughout the United Kingdom and further afield in recent years, that a significant minority would wish to move away from the current clerical monopoly and opt for a system of local democratic school governance, irrespective of the church they may or may not attend. This would entail a shift in public funding for the local schools and a certain amount of administrative upheaval, but a genuinely democratic government, attentive to the express wishes of its citizens, would be expected to implement the shift in governance and the attendant funding, in proportion to the results of the plebiscite. To express the outcome schematically, if 20% of the relevant local electorate voted for a shift to local democratic management and there are ten primary schools (of roughly the same size) in the area, then government would be expected to amend the governance regime for two of those schools, after proper consultation, to reflect the shift in democratic wishes. The fact that, by this stage, almost all schools in the region have been built out of public funds makes the question of 'ownership' of school property scarcely relevant. Of course, experience indicates that vested interests seldom relinquish power without a struggle. (See, in this regard, McCavera (1993) and McKelvey (1993).) And there is always the danger that the governance of a school will be taken over by a well-organized local clique. But that, after all, is one of the perennial dangers of democracy; and, on balance, if we are the democrats most of us claim to be, it is the kind of risk we have to take if we are ever to mature into a more self-confident society.

Environmental Education 2020

A Personal Vision

Colette Murphy

Environmental education can be encapsulated in the words of three very different thinkers from different eras:

How perilous is it to choose
not to love the life we're shown? (*Seamus Heaney, 1979*)

All composite things decay.
Strive diligently. (*Last words of Buddha, circa 500BC*)

It is only the first step that takes the effort. (*Madame Marie Vichy, circa 1800*)

Seamus Heaney and Buddha's words remind us of the why and the how; Marie Vichy's words help in moving us from vision towards action.

In Northern Ireland at the start of the twenty first century we are witnessing rapid political, social, economic, educational and environmental change. The political climate of reconciliation and co-operation engenders feelings of confidence that progress can be made in areas hitherto bound by sectarianism and suspicion. Environmental education in Northern Ireland has the potential to benefit enormously from the new spirit of co-operation which it is hoped will prevail during the next twenty years and beyond. It would be naïve, however, to expect previous mistrust and prejudice to disappear overnight, and to forget that there are also physical, political, social, educational and geographical boundaries impeding progress in environmental education. Local factors are often those that determine the success of environmental projects.

The following case study illustrates how such difficulties resulted in the suspension of an important international environmental project in the north-eastern edge of Europe in 1997. I was leading a group of young researchers in assessing the success of a joint project between two towns on either side of the Russo-Finnish border. The project had been agreed in 1995 and involved the renovation and modernization of a sewage plant in Sortavala, Russia, using expertise from Joensuu, Finland. Building was to start in summer 1997 and to last for about 11 months. Everyone involved welcomed the initiative, which had come about in the climate of enhanced co-operation since the opening of parts of the Russian border in 1990. The Finns were to benefit from selling their expertise (this area of Finland had the highest unemployment rates in the EU in 1997) and from a reduction in pollution from Lake Ladoga over which they were formerly powerless. The Russians would benefit from cleaner water (which has to be boiled before drinking), an improved pipeline system which would connect more houses in the area to the plant, and improved fishing due to the resulting decrease in pollution. Both towns would benefit socially and financially from the increase in cross-border co-operation.

However, there were many *local* problems, one of which being that despite substantial national and international financial backing for the project, Sortavala was suffering dramatic economic decline and could not pay its share in cash. Instead they agreed to pay in wood, exacerbating the problem of deforestation. To compound this problem, money that had been promised from Moscow was not forthcoming. In addition, despite workers from Finland and Russia visiting each other's sites and the enthusiasm to work together, there were deep-rooted fears – the town of Sotavala and the surrounding area was only annexed from Finland at the end of the second world war – many residents of

Sortavala still considered themselves as Finnish. The depressing part of this example (Crotty *et al* 1997) is that the new sewage plant in Sortavala has still not been built (summer 2000).

Educating about the environment thus demands as much attention to the socio-political as to the physical dimension – at both local and wider levels. This has been generally recognized over the past 40 years and there has been a corresponding gradual shift in environmental education from nature study towards the study of sustainable development (Table 1):

Table 1 Key trends in environmental education (adapted from Palmer 1998)

	Teaching Approaches	Trends
1960s	Nature study Field work	Emphasis on physical aspects of the environment
1970s	Outdoor education Field studies centres Conservation education Urban studies	Increasing use of natural environment for educational experiences; growth of outdoor centres; teaching about conservation and study of the built environment.
1980s	Global education Development education Values education Action research	Wider vision of environmental issues; inclusion of political dimension; clarifying of values through personal experience; community and pupil-led problem solving involving fieldwork.
1990s	Socio-environmental education Education for sustainable development	Use of new communication technologies in problem-solving approaches aimed at the resolution of socio-environmental problems; participatory action – changing behaviours.
2000s	Partnership education	Pupils, students, teachers, NGOs, politicians working together to identify and resolve socio-ecological problems.

Furthermore, the concept of the environment has changed from a concentration on natural characteristics towards that of sustainable development, linking the environment with aspects of globalization, resource sharing, poverty and ethics.

Environmental education was formerly targeted at young people and delivered through formal education. Now the focus is on both the educators and their target groups, resulting in a more widespread public awareness of issues, for example the sale of 'fair trade' and other 'greener' products in our local supermarkets. In Northern Ireland, however, we still carry our groceries in plastic bags. I remember shoppers in Germany as long ago as 1992 carrying goods from the supermarket in cloth bags with very long shoulder straps. These bags were given away free during the transition period until most people remembered to bring them from home! I was struck by the fact that this re-usable, biodegradable, extremely environmentally friendly option actually made shopping easier – the bags didn't break and could be carried on the body leaving the hands free. At the same time I was engaged in project work on supermarket food safety in Belfast. I tried to persuade a large, local supermarket to introduce cloth bags as a marketing exercise – they did consider it but thought the cost prohibitive. An illustration of Madame Vichy's words quoted at the start of this article come to mind.

Another trend in environmental education is the change from learning factual knowledge to learning by doing – changing behaviours and raising awareness. Methods of communication in environmental education are moving away from vertical, top-down communication models focusing on products, messages, issues and technologies. The contemporary approach involves horizontal models which focus on process, feedback dialogue and people (Hesselink 1999). The environmental educator is seen not as a teacher but as a process manager, guiding target groups towards sustainable development.

These trends are emerging in the hope that environmental education in the future will integrate all parts of society in learning for sustainability – learning about the environment, from the environment and, most importantly, for the environment.

In practice, it could be argued that precious little attention is paid to environmental education in schools in Northern Ireland, particularly at secondary level. I would contend that whilst there will always be examples of individual excellence regarding environmental education in particular classes or schools, no real progress will be made without the statutory requirement to do so. As a teacher educator in the primary sector from 1985 to 1999, I observed significant improvements in environmental education in primary schools, especially after 1991 when science became a compulsory primary subject.

The introduction of compulsory science into the primary curriculum in 1991 made an enormous impact on young children in their learning about, in and for the environment. The approach to teaching science at primary level is child centred, focusing on the child in her or his immediate environment. Many primary teachers have enabled children to consider their school and their classroom as important parts of their environment. Some teachers have introduced school or classroom enhancement projects as integral parts of the children's learning. Others have carried out important environmental projects in the local area surrounding the school grounds. The approach to environmental education in primary schools is frequently holistic and creative. Much of it is learned outside science or geography lessons and taught by teachers with diverse subject specialisms. Problems arise during the last two years of primary school when the emphasis shifts towards preparing children for the grammar school transfer (selection) tests. My observation is that teaching during this time becomes more didactic and science learning is focused on recalling facts. Many teachers introduce environmental project work again once the selection tests are over.

When children transfer to post-primary schools they are presented with a much more compartmentalized timetable with different teachers for different subjects. Their learning experience becomes much more fragmented. This arrangement is highly problematic for delivering environmental education, which incorporates aesthetic, spiritual, social, political and economic, as well as scientific dimensions. In addition, environmental education depends upon the totality of an individual's experiences of which formal education is only a small part. To complicate the problem further, the formal aspect of environmental education includes working 'in' the environment and many advocate the success of residential courses in achieving this. The residential aspect of environmental education has been seen to provide an enormous amount of 'value added' education. Evidence from Finland indicates that children who attended a school which provided lots of opportunity for outdoor, residential teaching were more confident, open-minded, knew their own limits, had a stronger and more empathetic relationship to nature and were more familiar with environmental issues than children attending a school in which only one day a year was given over to 'trips' (Palmberg and Kuru 1998). In my experience as a teacher and teacher-trainer of biology and primary science, I am struck by the fact that, without exception, former pupils and students highlight our residential field courses as their most memorable, important and enjoyable learning experiences, with regard to both the field work *per se* and the learning environments they experienced. There are, of course, many practical problems associated with providing outdoor opportunities for schoolchildren, but such problems may disappear when there is a statutory requirement.

The school curriculum has gone through a period of rapid change over the past 20 years. Some subjects formerly considered extremely important, such as Latin and Greek, have disappeared from many school curricula. Areas like information technology, on the other hand, are now being encouraged. In 1982, the Department of Education for Northern Ireland (DENI) issued a circular to all teachers dealing with the improvement of community relations and the possible contribution of schools. Integrated education was established in 1984 with the setting up of the Belfast Trust for Integrated Education (BELTIE) and the Northern Ireland Council for Integrated Education (NICIE). The Northern Ireland Curriculum was introduced on a phased basis from 1990. It was reviewed in 1994 and the revised Northern Ireland Curriculum was introduced from September 1996. The curriculum is currently under review and a revised version will be sent to schools in 2002. Proposals for the new version aim to improve curriculum relevance and enjoyment for all learners.

There are increasing numbers of parents who are choosing to 'home-school' their children as an alternative to school education in the belief that they can provide a more holistic and relevant education for their children. The Home Education Advisory Service (HEAS) terms this phenomenon the 'quiet revolution'. In an interview with one such family, I was informed that:

Part of the motivation for home schooling was the ease with which environmental learning was possible without the restrictions of school timetables. We feel that an environmental education is much more important at a young age for children to acquire an appreciation and knowledge of the natural and physical world. To do this we organize (together with many other home schooling families in our area) various nature trips, museum outings and walks. We consider that too many hours spent sitting at a desk, watching a computer screen or spent in front of a television is detrimental to a holistic development for young children. Our children (4 and 6) have acquired basic reading and writing skills without much prompting. It is our view that too much time in schools is spent with small children being 'trained' in such intellectual skills.

Future perspectives

I envisage that during next 20 years there may be a move away from specific subjects to broader areas of education. We used 'subjects' many years ago to make sense of the vast array of 'knowledge' that was being amassed. However, over 100 years ago, Sir HJ Mackinder emphasized that:

Knowledge is one. Its division into subjects is a concession to human weakness.

In the present day schools the old subject divisions are becoming less and less meaningful. This is reflected in the changes to educational curricula. In the Northern Ireland common curriculum, we already have a series of cross-curricular themes and the introduction of personal, social and health education. More recently, the new proposals for change to the Northern Ireland curriculum suggest that there should be specific, compulsory programmes for personal education, citizenship and employability (CCEA, 2000). One problem with the CCEA report is that it advocates such programmes *alongside* the other subjects – it lists *18 subjects*, together with percentage times for each for the Key Stage 3 curriculum! I would advocate replacing the now outdated and overlapping subjects with wider, more relevant, broad educational areas for key stages 1 to 4. These areas would incorporate the former subject programmes of study, whose content would be revised, up-dated and widened. One such area would be environmental education, the content of which would draw from many of the former subjects and would include the added dimension of pupils working as partners with teachers, non-governmental organizations (NGOs), politicians and community workers in the identification and resolution of local environmental problems.

Vision for environmental education in 2020

As a pre-requisite of effective environmental education in 2020, each school will be set up as an environmental centre. Local community environmental groups will meet in the school, with teachers, pupils and parents as partners. Pupils will learn how to turn ideas into action. They will participate in preparing petitions and appreciate the importance of using their vote when applicable. All schools by 2020 will have sophisticated information and communications technology (ICT) facilities and populations of ICT literate pupils and staff. Each school will keep data about the different local projects, which could be shared by other schools and groups. Schools will be linked together to form a network which could be used to monitor environmental progress on a larger scale. Pupils could consider the significance of small, localized projects on a much wider scale. They could be introduced to global environmental issues about which they would feel they could contribute in a positive way. A problem with the current method of teaching pupils about global environmental issues is that pupils feel powerless to do anything about them and do not change their behaviour in ways which could help to alleviate problems. I would hope that if environmental education in 2020 were to be delivered in the way I have described above, pupils' behaviour would be altered. Perhaps the 'environmental education-led' classroom of the future will help to break down some of the culture and class barriers which contribute to the unequal local and global distribution of resources.

To achieve this vision of environmental education in 2020 I offer the following recommendations:

- ⊙ That current 'subjects' in primary and secondary curricula are gradually replaced by 'subject areas', such as personal education, civics and environmental education.
- ⊙ Environmental education should be delivered as a separate, compulsory subject area in the secondary curriculum.
- ⊙ The content of environmental education should incorporate aesthetic, spiritual, social, political and economic and scientific dimensions, and should have a strong local focus.
- ⊙ There should be a compulsory residential element to environmental education in school.
- ⊙ Pupils should work in partnership with teachers, parents, NGOs, politicians and community workers.
- ⊙ Teachers should be trained specifically as 'process managers' to deliver environmental education in schools.
- ⊙ Schools should be the local 'environment centres'. Local environmental groups should be linked to schools in the area and partners (including politicians) should work together to identify needs and actions locally.
- ⊙ Schools should be linked up together to form a series of local, national and international networks in order that environmental projects can be monitored.

The Curate's Egg

Martin Bowen

That vision of King Canute trying to force back the waves lapping on the shore has remained with me in all my days as principal of an all boys school in what used to be sixty years ago, the fastest growing public housing estate in Western Europe. At the turn of the millennium I remember our percentage of pupils on free meals as 72 percent. Nothing much has changed. It still borders on the 70 percent. This is in spite of all the changes, the scrapping of the selection procedure, the totality of information and communications technology (ICT) right throughout teaching and administration, the onset of paperless examinations even for coursework production and the lowering of the pupil teacher ratio to a maximum of 12.5 in schools such as this. The changes in secondary education haven't stopped. We were guaranteed a period of stability even before the millennium turned but it simply did not happen. The pace of change within education has gained its own momentum and like the waves lapping on Canute's beach, they just keep on coming.

This might paint a dreadfully depressing picture of education in one particular area in Northern Ireland which admittedly did suffer greatly in the 1970s/1980s and 1990s from that kind of civil strife from which a community might never recover, but there are positive features about the kind of changes which have happened in schools such as this over the past twenty years. Motivating boys was probably the biggest problem that we faced in the late 1990s and the early 2000s. Thankfully the Department of Education for Northern Ireland taken over by a local minister twenty years ago, has conceded that there are some schools that do need extra help: schools where a critical mass of pupils are on free school meals, schools which serve very socially deprived areas, schools where male role models are lacking both in the family and in the teaching environment. Group 1 Status for some schools was introduced in the early part of the millennium and for those schools funding was artificially enhanced to provide extra teachers for literacy and numeracy; support for inexperienced teachers in the classroom; extra concentration on ICT; focus on attending school; and dis-application of the Key Stage 4 curriculum so that boys could be educated vocationally as well as academically.

Our action planning for change involved not only the staff but the pupils themselves and of course their parents. It is certainly heartening for me to see how much pupils and parents are willing to become involved in school improvement. Maybe now most of them realize just how important it is to their futures to have the boys educated to a standard which at least allows them to compete favourably with others in the job market.

I would still argue that the only way of improving standards in schools such as this is to move employment into our catchment area on a scale that will virtually wipe out the free school meals factor, the social economic deprivation factor, the non-attendance but most of all the unemployability factor. It still hasn't begun to happen. The various agencies responsible for bringing extra employability after the cessation of the political problems failed to score bulls eyes in terms of their target setting for jobs in areas of greatest need. A statistician in the Department of Education told me recently that she felt no-one had thought to lower the free school meals percentage and therefore the social economic deprivation factor in areas like this by providing jobs for the parents of the boys and girls who go to school there.

Good results, good pupils, good jobs

On the matter of statistics, we are still compelled to publish our examination results once a year. It's just that nowadays there is not so much emphasis on higher grades but on scoring grades. Some fifteen years ago at least we managed to wipe out completely

those numbers of pupils leaving without any educational qualifications whatsoever and our figure of around 15-20 % of pupils achieving five grades A* to C at GCSE level remains pretty constant. Of course secondary schools prior to the abolition of the Selection Procedure were the schools which had to 'learn' how to increase that number of high fliers within their schools but grammar schools found it difficult to add to the overall national improvement.

The motivation of boys and their parents in an all boys school such as this is a multi-sided problem. There have been initiatives in the past and yet more to come aimed at addressing all of these problems but the solution has to be one of 'carrot and stick'. Our carrot during this decade is the financial rewards given out to pupils who meet their own negotiated targets both in academic achievement, relationship management (positive behaviour initiative), attendance, performance at work experience and so on. These students get a financial payment each month straight into their own hands out of the school budget and of course allowances have been made for that increased spending by funding from Government. All of this means that the competition for places in further and higher education and indeed for vocational training and for employment, is fierce. The reason that the competition is so heavy is because the same kind of pupil is vying for the same kind of jobs and opportunities.

The stick, after many years of lobbying central government, is that if pupils are not attending school or being well behaved when they are in school then the school authorities, after consultation with employing authorities, can withdraw the Child Benefit order book so that parents cannot cash in their meagre £100 per week for the first child and £60 per week for the second. This at least ensures that parents have a little more control over the activities of their sons and daughters than they did some twenty years ago. They have a financial vested interest in doing so.

Good subjects, good curriculum, good career

Motivation through curriculum concerns has always been a mess and I am sorry to say in this visionary year of 2020 that it remains that way. There has been so much chopping and changing of the curriculum by the Council for Curriculum and Investment Applications (CCIA) over the past fifteen years since its creation has meant that schools are not those stable havens of organized chaos. In this country we have gone from the Northern Ireland Curriculum to the Common Plus Curriculum, to the LoNg Curriculum (Literacy and Numeracy), to a Full Menu Curriculum where students in some schools can choose after consultation, with parents and teachers, those subjects which determine their personal career plan from age 14 after vocational counselling.

Motivation for self-learning has been to the forefront in the past five years and will continue to be so for the next five years. This means that areas of our schools are being converted to Data Capture Suites so that pupils under supervision even in Key Stage 3 can work independently on various project and investigatory work. Although this works particularly well in science and technology, other traditional subject areas are struggling. Our current consultation phase on changes to the curriculum includes a consideration that pupils who are under 14 years study only key skills of literacy, numeracy and communication skills and all three of these would have a much wider definition today than they did at the onset of the millennium, and pupils over 14 years old (Key Stage 4) begin to prepare for adult and life learning whether on the academic or vocational routes.

Good teachers, good training, good education

Thankfully the teacher training establishments, both colleges and universities, have established a good working rapport with schools for onsite and on the job training. Thankfully also our school has become a 'teaching' school. This means that student teachers who plan and implement their work in a dedicated way and who can learn from existing good practitioners can deliver good quality education through good quality teaching. This is of course much appreciated not only by pupils but parents and other

teachers. It is still difficult however to employ permanently some of these younger teachers when they see that other schools in the leafy suburbs remain easier to work in.

In terms of personnel management, my job has become much more difficult during the past few years with more and more existing teachers feeling burnout much earlier. It is a real shame that male teachers seem to burn themselves out much more quickly than female teachers. This has the added negative effect of there being less role models in schools for boys than for girls. In implementing the Scheme for Unsatisfactory Teachers and the Attendance Schemes instigated by various employing authorities, much soul searching has to be done, many meetings to take place and of course dealings with teacher union representatives are fraught with difficulty. Very many difficult decisions have to be made in this regard and I still yearn as do my deputy and three vice-principals for a time when we can return to the classroom and do what I think I used to do well i.e. teach.

Good support, good pastoral, good school

I have already mentioned the high concentration that there is in Good Attendance in school in this visionary year. Good attendance however cannot be seen as a panacea to end all personal, pastoral and educational ills in a boys' school. We have definitely moved away from that isolationist approach where everything is seen in neat categories to be addressed by one external agency or the other. It used to be that the Social Services would have dealt with one problem, the Education Welfare Service with another, the Educational Psychology Service with another and so on. Nowadays a multi-disciplinary approach is not only needed but required by regulation. This means that my school has a full-time educational psychologist, a full-time educational welfare officer and a pastoral team made up of very experienced teachers, form teachers and year tutors organized and co-ordinated by a pastoral care manager all of whom look after the non-academic side of a pupils life. This sometimes entails the 'tagging' of pupils who may go AWOL, sometimes the provision of a mobile telephone for parents and sometimes the removal of a pupil entirely from the compulsory curriculum to follow a customized individual education plan so that the pastoral and other needs of that pupil can be addressed.

This kind of approach is costly in terms of time and human energy and I can foresee a time in the not too distant future when we will be having meetings to organize meetings about having meetings. As a young teacher I was always taught that we should keep the pupil at the centre of the process of education. Now the education of any particular child seems to be dependent upon satisfying various audiences which have an input professionally to the life of that child. At the last count my school's Board of Governors adopted thirty-nine policies governing various issues. It can be difficult if not impossible to implement these policies in a manner which allows a pupil-centred approach to education. One major success however is that we now have one team of social workers to which the school can relate which looks after the pupil's social welfare in all its aspects rather than 'each to his or her own'.

Good terms, good working conditions, good God a pension

I turned fifty with the millennium which means that I have now reached the new retirement age of seventy years of age. In this, my last year, in this school I can only look back with fondness on the successes I have had with pupils and not on the successes I have had with the system of education in Northern Ireland, which still discriminates between the comfortably well off and the unwaged. My successor has already been appointed. She is thirty-four years old, an executive in business, with only three years teaching experience. Changing times.

Dyslexia

John Clarke

'Dyslexia is a complex neurological condition which is constitutional in origin. The symptoms may affect many areas of learning and function, and may be described as a specific difficulty in reading, spelling and written language. One or more of these areas may be affected. Numeracy, notational skills (music), motor function and organizational skills may also be involved. However, it is particularly related to mastering written language, although oral language may be affected to some degree.'

This definition was prepared by the British Dyslexia Association in 1996 and serves very well to indicate the areas of cognitive functioning which are affected. Dyslexia is clearly not a reading difficulty only. Recall of common sequences such as times tables, days and months, dates of birth and telephone numbers is often difficult, as is following a list of instructions and recalling messages, as short term, or 'working', memory may be poor. Of major concern is the loss of self-esteem and self-confidence consequent upon continued failure: this in turn leads to poor self image, contributing to loss of motivation and depression.

'Dyslexia' has been thoroughly adopted into popular idiom and is now much more widely recognized as a learning difficulty: everyone knows, don't they, that dyslexic learners struggle with reading, spell badly and have difficulties with written language?

The apparently haphazard use of alternative terminology such as 'reading retardation', 'specific reading difficulty' and 'specific spelling difficulty' over recent years has often led to confusion. The term 'specific learning difficulty (SLD)' has been long employed synonymously, being thought to be more acceptable to education authorities. Cynics might also suggest that its identification by a psychologist is less likely to oblige an authority to provide specialist teaching facilities and resources. However, there is a growing tendency to view SLD as an umbrella term, dyslexia being seen as the most common, followed by dyspraxia and attention deficit hyperactivity disorder (ADHD). 'Dyslexia' appears more often in educational psychologists' reports so we must conclude they now feel more comfortable with it.

A number of factors have undoubtedly contributed to this familiarity and gradually changing attitude: media interest has increased in recent years, focusing on individuals' personal experiences, dyslexic celebrities from the worlds of sport and entertainment have attracted public attention with their own stories and a number of court cases demanding compensation from local education authorities have been widely publicized.

In NI, the introduction some ten years ago of a course leading to a postgraduate, professional qualification for teachers, the inclusion of dyslexia as a recognized learning difficulty in the Code of Practice (1997) and the drive towards inclusive curricula have led to increased demands on education authorities to provide relevant training for classroom teachers and SENCOs and greater resources for schools. A developing interest from the allied health professions of Speech and Language Therapy and Occupational Therapy has added to this pressure.

The NI Dyslexia Association pursues an active policy of informing and supporting parents and families, dyslexic learners and teachers: IPSEA provides advice and support to parents on matters relating to children with Special Educational Needs, amongst whom are dyslexic learners. Other voluntary bodies lend their voices on occasions.

The University of Ulster provides support for its dyslexic students, as do a number of colleges of further and higher education. At the time of writing, a collaborative project is

under way, involving Queen's, the University of Ulster and the Belfast Institute for Further and Higher Education (BIFHE), to develop a register of support workers at all levels to assist dyslexic students in higher education.

A number of specialist reading centres have been set up by the education and library boards (ELBs) and some dyslexic primary level pupils are accommodated within these, although waiting lists are often long and not all areas of difficulty are addressed, for example, maths.

Apart from the changes mentioned above, the vigorous pursuit of an 'underlying problem' by researchers in cognitive neuroscience has provided insights into possible causes of dyslexia. Amongst these are investigations by Galaburda (1993), suggesting that dyslexics show right and left hemisphere processing patterns different from those of non-dyslexics and Stein (1995), revealing visual processing and convergence difficulties in dyslexic subjects. Other studies have indicated genetic factors, involving Chromosomes 15, 1 and 6 and the recent identification of a significant cluster of genes.

These discoveries have provided a vital theoretical underpinning which has helped in justifying the existence of the condition to the sceptical. In addition, the implications of the findings have, in some cases, been translated into intervention programmes, notably in the areas of phonological awareness and sound categorization. A wider understanding has been reached of 'right-brained' thinking and the value of its assimilation into classroom practice.

This all seems very promising and certainly the situation has improved: why then should increasing concern be expressed by parents over the failure of schools and ELBs to diagnose their dyslexic children's particular difficulties and provide appropriate teaching for them? Why should a parent report that her 8-year-old dyslexic son was forced by his class teacher to parade his failure before his peers for their amusement and his humiliation? Why should a 10-year-old dyslexic girl have apparently spent much of her Year 6 and Year 7 cutting out newspaper articles and pasting them into scrapbooks while her peers worked towards the Transfer Test?

Why, also, should one secondary head teacher still imagine dyslexia is 'about pupils who write back to front' while another refers to dyslexics as 'a small minority amongst a minority' implying that it is unrealistic to expect much to happen for them?

A conservative figure for the incidence of dyslexia is 4% of the population: this means one dyslexic pupil in every class in every school in NI, a sizeable minority and one whose needs too often are neither recognized nor met, whose self-esteem is invariably damaged and whose potential is not realized, with a consequent loss to the community as a whole.

If we are to consider the future, then there is considerable food for thought in just those examples above.

An important element of the Education (Northern Ireland) Order 1996, the Code of Practice on the Identification and Assessment of Special Educational Needs, became operational in 1998, following two years of 'piloting'. This was to be the future. It has also become a pertinent reminder that: "... the most malicious god of all is the god of the counted chicken."

The first of the 'fundamental principles' of the Code states that: "... the needs of all pupils who may experience learning difficulties during their school careers must be addressed ..." but the picture which emerges is one of inconsistency of application across the Province, from ELB to ELB and from school to school. Few parents have been made 'officially' aware of the Code's existence, never mind its possible implications for their child. Vague language has led to varying interpretations of, for example, the role of the special educational needs coordinator (SENCO) and the responsibilities of schools in meeting a pupil's special educational needs as specified in an educational psychologist's

assessment report: nor does anything seem to happen when a school fails, refuses or pleads inability to put such recommendations into practice.

Greater clarity and direction for ELBs, schools and teachers is looked for by those concerned with the plight of the dyslexic learner, in the inevitable review of this document. Unfortunately, if the new Draft Code of Practice for England and Wales is seen as a potential model for the Department of Education to follow, there is much that is alarming. The British Dyslexia Association, in its response to the draft, refers to "... language [which is] unnecessarily complex and therefore inaccessible to many parents and ambiguous to teachers and LEAs." There is a concern that "... references throughout the Code suggest that a minimal level of progress is adequate."

The number of cases brought before the Northern Ireland Special Educational Needs Tribunal by parents challenging ELB decisions, regarding the issuing of a Statement or refusal to assess, is increasing; approximately 30% of these concern dyslexic pupils. A major point of contention is the failure of assessment reports to be specific about provisions to meet an individual pupil's needs: again, in its evaluation of the new Draft Code, the British Dyslexia Association notes: "... the dropping of guidance regarding specificity of statements of SEN". This removes vital protection for children and the right of parents to know what help their children should receive.

Tribunal cases are costly in terms of time, energy and valuable financial resources that could be better spent on ensuring the pupil's progress towards success in learning. The likelihood is that the number of cases being brought before the Tribunal will increase, in the belief that the only way to prompt ELBs into serious action is to hurt them financially. This is an understandable response on the part of frustrated parents, but one which could be avoided, given an imaginative, holistic approach by ELBs and schools.

If the principles of inclusion and 'Excellence for all Children' are to be honestly pursued, then it is vital that those drafting codes and principles of practice provide guidance which allows ELBs and schools to be *proactive* and not simply *reactive*. It should not be the responsibility of parents to provoke education authorities into providing what is a right.

Most dyslexics need great courage to attend school every day. If adults found themselves in a situation at work where they were regularly faced with tasks they could not perform adequately, they would choose to leave. No such option is available to the dyslexic schoolchild who may have to undergo days, months and years of frustration and humiliation. (Thompson)

All children must attend school, there is no choice in the matter, and therefore it is to be expected that the educational system will provide an equal opportunity for all to reach their potential. In its present form, it does not achieve this aim. The dyslexic learner has the same rights as any other pupil - to be given access to a full curriculum, to be educated appropriately, to become an independent learner, to feel comfortable and secure throughout their educational experience and to leave with a sense of fulfilment, self-esteem intact, prepared to meet the challenges of further learning and the world of work.

For this to become a reality, radical changes must be enacted.

An *active* policy of early diagnosis and intervention is essential. How much time, energy and money could be saved if the traditional 'deficit' practice were removed – that is, waiting until a pupil's reading and spelling is three or four years behind his or her intellectual ability before drawing on extra teaching resources? This 'failure' model leaves pupil and teacher equally frustrated as it is often impossible to catch up. By this stage there is the additional challenge of rebuilding his or her damaged self-esteem and lost motivation.

What may start as a learning difference quickly becomes a learning difficulty if dyslexia is not recognized and the teaching is inappropriate. Early identification and the opportunity to learn the way they learn best, may remove these pupils' special educational needs and

reduce the number of individuals with intransigent problems who require long-term intensive specialist support.

Commitment to a serious programme of awareness training at the initial teacher training stage and in-service training in identification and classroom management for practising teachers and classroom assistants is essential. Educational psychologists need to reflect the different learning style and very specific requirements of the dyslexic pupil. Dyslexia is a life-long difficulty, and an educational community genuinely committed to 'life-long learning' should acknowledge this by ensuring that further and higher education teaching and tutoring staff are trained to deal with their dyslexic students' needs.

The most constructive way forward, and one which would do much to restore parents' and learners' confidence in the sincerity of ELBs to work towards removal of the rhetoric-reality gap, is the promotion of the dyslexia-friendly school.

This initiative must be firmly based on a partnership between the ELB, primary and secondary schools, parents and voluntary organizations. Partnership with parents, clear expectations, guidelines for good practice, professional development for teachers, awareness raising, provision of approved specialist training for at least one teacher in every school and support and resources for schools are key issues. It is worth noting that the concept integrates the whole-school literacy policy and that many of the strategies successful with dyslexic pupils also enhance the learning of others with a variety of needs.

For an individual school, becoming dyslexia-friendly means ensuring that the issue of dyslexia has status within the school. This must be achieved through the commitment of the governors and senior managers to supporting dyslexic pupils across the whole curriculum. The School Development Plan, a document used by the Inspectorate in evaluating the management of a school, is an effective means of implementing necessary changes.

The achievement of all pupils must be seen as the responsibility of everyone. Initial scepticism must be overcome, whole school approaches formulated, targets set and monitoring and evaluation systems put in place. The whole school must 'buy into' the notions of zero tolerance of failure and high expectations of dyslexic pupils and other underachievers. Failure to learn is the fault of inappropriate methodology, poor materials or whatever, rather than the fault of the learner. A whole school marking and assessment policy will help to overcome basic skills barriers and enable dyslexic pupils to demonstrate what they know and can do. Ongoing training and specialist support are important in this context, to ensure teachers feel enabled and empowered to work in a different way.

Basing individual targets on where the pupil is, rather than where he or she should be at the time, allows the able dyslexic who needs basic skills support, but is capable of working at an ability-appropriate level in most subjects, to be placed in top sets in, for example, maths, science and IT while receiving specialist support in English.

Parental participation is based on mutual respect, trust and honesty. School policies need to be written in everyday language and a system put in place to allow sharing of information about their children's learning needs.

This model has been successfully introduced in other parts of the United Kingdom. These are effective schools which enjoy strong leadership, value staff development and are concerned about quality of instruction and learning for all their pupils, including dyslexics. The reputations of both the LEAs and the schools have been thus enhanced and referrals to Special Educational Needs (SEN) Tribunals have reduced, easing the burden on funds which have been made available for further training and resourcing.

...these were [dyslexic] pupils who enjoyed their lessons, worked hard and showed a commitment to learning. ...comments made by many of the pupils that

they felt they were being helped to overcome their previous difficulties (OFSTED).

This *has* to be the way forward. Then James's Year 9 classmates will not be told he should still be in Year 2 learning to spell, Robbie's four pages of laboriously copied History notes will not be torn out and thrown away and Julie will not spend Year 6 and Year 7 cutting and pasting. "... it is time...to look not only at the difficulties, but at the abilities and the potential that many dyslexic people have" (Lord Richard Rogers). The dyslexia-friendly school offers this as an achievable goal.

The Changing Culture of Teaching and Learning

John Anderson

This chapter is a personal view of the proposition that education technology (the application of information and communication technology (ICT) in the Northern Ireland education service) is already changing the nature of teaching and learning, and, over the next 20 years, has the potential to transform schools themselves.

By 2020, what will our schools look like? Will they provide a curriculum that is considerably more flexible and broadly based than the Northern Ireland Curriculum of the previous century? Will learning for each pupil be genuinely personalized? Will timetables be individualized, flexible for those who are self-sustaining learners, tightly managed for those who have not yet developed independence? Will there be a range of 'para-educators' working alongside teachers, the roles of all becoming more diversified, as learners demand more of them? Will learning be guided by individual feedback, some of which comes from tutors who do not even live in Northern Ireland, never mind work in the same school, and some from computer-based testing? Will each student 'sit' their public examinations, on-line, just when they are ready to take them? Will learning extend well beyond the traditional school day? Will the participants in the same lesson be in different places, as likely to work from home or the local library, as in schools? Will email and video-conferencing be forms of interactions that are as common as face-to-face teaching? Will professional support for teachers be delivered in a similar way, by video conferencing? Will study be spread over a four or five term year? Will expensive school buildings be used day, evening and weekend, by a range of community and social groups for educational activities, using modified classrooms containing expensive specialist resources, as bookable spaces for individuals and groups? Such scenarios are proposed by West-Burnham and Bowring-Carr (1997 and 2000).

E-Learning

The belief that technology has the power to transform, ranges from the vision of Richard Fothergill, director of the Microelectronics Education Programme (set up 20 years ago, to develop the use of computers in British schools) where the aim was:

To help schools to prepare children for life in a society in which devices and systems based on microelectronics are commonplace and pervasive. (Fothergill and Anderson, 1981)

to the blunt assessment by John Gardner, awarded a chair in education at Queen's University, Belfast in 1995 that: "... the future has been a disappointment".

Since 1975, when Methodist College, Belfast became the first of a small number of schools in the UK to use the computer to assist in the management of learning in a sixth form science course, ICT has looked set to enrich learning, but has not delivered on its promise.

In this millennium, unbridled change has been brought about by the mass home ownership of multi-media computers with Internet access, 'pervasive computing' in the shape of web-enabled, mobile phones, and by the liberalization of telecommunications policies and tariffs. According to Forrester Research, on-line access will available to one-sixth of the world's population by 2005. Change has been evident the worlds of telecommunications, business, trade, entertainment and leisure, and in the professions: finance, medicine, the law and, perhaps finally, in education.

That ICT can change learning, is no longer a question. For teachers and learners who have Internet access at home, and for the minority who use computers regularly at school, it has done so in a number of ways.

As Bill Gates (1999), writing about the business world, puts it:

The successful companies of the next decade will be the ones that use digital technology to reinvent the way they work. These companies will make decisions quickly, act efficiently, and directly touch their customers in positive ways.

Gates believes that if companies do not reinvent themselves as e-businesses, they will go out of business. Will this happen to schools? What is the nature of e-learning and if schools do not promote e-learning, what is their equivalent of going out of business?

The European Commission recognizes the challenge in its 'e-Europe' policy, which contains a major 'e-learning' component (EU 2000). Commissioner Vivienne Reding, launching 'e-learning' in February 2000, described the central role of the education service in each European country in responding to the threats and opportunities posed by the globalization of world markets. Governments need their education services to nurture independent learners, with a capability for life-long learning; who are able to work, both independently and collaboratively, in the information economy of the 21st century. She identified the northern European countries as those that are making the most effective response. The British government has made an unparalleled investment – some £2 billion across the UK in three years - through the National Grid for Learning, the New Opportunities Fund for teacher education in ICT and, in Northern Ireland, through the Education Technology Strategy(1997).

Automate or informate?

How ICT impinges upon, supports, and modifies the learning processes central to every subject, was mapped with commendable clarity in a report produced in 1989 by a Ministerial Working Party on Cross-Curriculum Information Technology (IT). The working party was chaired by Tom McMullan, Director of Classroom 2000, who (at the time of writing), is procuring the managed ICT service infrastructure required by schools to address the two remaining obstacles to the widespread adoption of ICT; namely, teacher competence and pupil access to the technology.

Of course, we might well ask, where, and to what extent, has learning been transformed in schools since IT became a statutory educational theme ten years ago? Alan November cites Professor Zuboff (1998), who describes the two main ways in which ICT brings about change in any organization: by *automating* existing practices without necessarily adding value; or by *informating* and transforming them, thus enabling new ways of accessing information and creating new practices.

In school administration and management, Northern Ireland has, since 1991, implemented a uniquely comprehensive suite of computer-based school administration software in nearly 1000 schools. Inspectorate surveys of the implementation in secondary schools in 1996, and in primary schools in 1999, reached similar conclusions. In the vast majority of schools, principals had, in Zuboff's terms, used the software successfully to *automate* school administration. Only a minority had *informed*, or transformed, their decision-making by using the value-added analyses, which the software provides, to inform value-for-money judgements about the effectiveness of curriculum planning, of the quality of teaching, and of school management.

As far as teaching and learning is concerned, published inspection reports from the Education and Training Inspectorate lead us to conclude that for some pupils, with some teachers, in some classes, in some schools, some enrichment has been taking place, but only exceptionally has transformation been evident:

In some 47% of schools, the provision in ICT was judged to be entirely satisfactory or better. In over 50% of schools, however, there were weaknesses or significant weaknesses. The main weaknesses...where provision for ICT was poor (included) the fragmented and patchy nature of the work in ICT; little evidence of progression over the 7 years of primary education; (and) the narrowness of the children's experiences in ICT, often limited to word processing for presentation purposes, and the use of games.

Many Northern Ireland teachers, who use ICT, are enthusiastic about the improved motivation, attention to task, perseverance, effective group work, and learning which their pupils experience in computer-enabled classrooms. Those who document the improvements are, however, the rare exceptions.

To see what e-learning really looks like for school-age pupils, it is necessary to look at what is happening at home, in cyber-cafes, in public libraries and in community centres. ICT-enabled young people go directly to the Internet and CD-ROM reference resources to find information, to get explanations and advice, and to learn. They use distance-teaching and self-assessment materials, to glean ideas for essays, or to understand better a difficult topic. They contact specialist, professional organizations and individuals, and even the authors of their set texts, directly by email. Depending on the subject, they can submit their work on-line and get critical advice from other students and teachers. At present, American colleges more often publish on-line curriculum, for example the Virtual High School in Orange County, Florida, has published 57 on-line school courses, but in a few years time the whole curriculum for British schools will be on-line. In the UK, a number of web sites provide contact with teachers who help with homework on-line, for example:

- ⊙ www.bbc.co.uk/education/revise;
- ⊙ www.homeworkhigh.com;
- ⊙ www.digitalbrain.co.uk;
- ⊙ www.learnfree.co.uk;
- ⊙ www.gcse.com;
- ⊙ [www.revise.it.](http://www.revise.it)

The Minister for Culture, Media and Sport has claimed that, in 1999, 70% of all GCSE candidates used the BBC's on-line *GCSE Bytesize* service, which comprises teaching modules, self-assessment tests and access to teachers for advice:

Those that did use the service appeared to improve their exam results on average by something like one point on their grades over and above what they would otherwise have achieved.

In the first operational month of Channel Four's on-line homework advice service, Homework High, the 97 teachers who provide on-line advice had answered over 6,000 questions posed by over 17,000 pupil visitors a week. Pupils are using the technology to *disintermediate*, that is to sidestep school and curricular controls on their access to information. In Alan November's terms (November 1998), they are 'growing up digital' and many teachers are not aware.

Evidence of change?

In the context described, the planning and preparation of teaching needs to change. The potential for learning is diminished if teaching does not take account of the use of education technology by the *digital learners* in the class. Home-based e-learning needs to take place in step with school-based teaching. If a teacher complains that pupils have done their homework by 'simply' copying text and images from a CD-ROM, or from the Internet, then the task set may not have been appropriate. The teacher may have missed the opportunity to design a more challenging and worthwhile task, which would anticipate

and takes advantage of the ready access to digital information by the majority of the pupils. It will also be essential to consider how to support those who are disadvantaged by their lack of Internet access at home. Furthermore, the teacher's assessment of the work needs to take into account the technological and information competence demonstrated, or must avoid being unduly inflated by the surface slickness of a word-processed essay or multimedia presentation. Finally, if the learners' information skills themselves are poor, there should be explicit planning to raise the standard of their information literacy.

In some cases, inspection and project reports do provide glimpses of transformational change and I recount some of these below.

- ⊙ An English teacher, realizing that only a third of her class have access to the Internet at home, arranges the pupils carefully into groups of three. She asks each group to use the Internet, for homework, to research the set play, each from a different perspective: the life and times of the playwright; the historical background to the main characters; reviews of the various films made of the play; costume design for stage productions; actresses who played the lead; and so on, and then report their findings to the whole class.
- ⊙ A home economics teacher in a non-selective secondary school finds that the project work on packaging of food products carried out by first year pupils reaches GCSE standards when they organized themselves in groups to carry out research in each other's homes. The pupils used the Internet to search for food packaging companies and evaluate their products. The collectively applied computer-aided design and paint tools for the packaging designs, and created web-based and multi-media presentations for the advertising and marketing aspects of the brief.
- ⊙ An art and design teacher in a grammar school teaches his pupils to use the Internet for extensive research into companies engaged in the design of men's couture. The influence of the research raises their GCSE project work to 'A' level standard, and the 'A' level work to that of a good commercial quality.
- ⊙ A geography class, studying land zoning on the Internet gets caught up in, and makes well-informed contributions to a real debate in the community about the siting of a toxic waste dump.
- ⊙ In a science class, each group of pupils uses computer data-logging with temperature sensors to test the effectiveness of different insulators. The teacher realizes, after the experiment has started, that they do not need to wait until each group has copied the results to make comparisons, and allows the groups to move around the classroom comparing the different dynamic temperature graphs.
- ⊙ In an all-girls' school, a political studies class emails the leaders of all the local political parties with questions on the current political agreement. All but one leader replies in person giving detailed answers. When the girls email the local councillor from the one party that did not respond, to point out the discrepancy, a detailed response arrives at once by email.

Given the potentials of multimedia, pupils, working both individually and collaboratively, can engage in a *constructivist* approach to learning. They can improve their knowledge and understanding of a topic, developing the skills of teamwork. They can develop their ability to communicate with an audience, by constructing professional presentations, which combine graphics, text, animation, video and sound, and thus demonstrate to others and make explicit for themselves their newly acquired knowledge.

Information Literacy

There are sufficient examples of good practice in our schools to be clear that the potential is not specific to any one subject, but lies across the curriculum, with *information literacy* at its heart. Yet, it is evident that standards in information literacy in our schools are low:

The main weaknesses in provision were not subject specific, but rather were evident across the curriculum, in the quality of teaching and in the pupils' learning in such areas as their interpretation and use of information, and their ability to explain their understanding of what they were learning. Even in the final sample of inspections...weaknesses outweigh strengths in the use of information and community technology (ICT) in almost half of the schools. (DE 2000a)

In most schools, the educational themes, notably ICT, were under-emphasized in teaching and learning within and across the subjects (DE 2000b).

What exactly is information literacy, and how can it be improved? There are many definitions. Michael Marland (1981) described the nine stages of effective *information handling*, which starts with the learner deciding what the subject matter is, refining the question to be asked, selecting appropriate sources and resources, being selective about the information found, and ending with an evaluation of whether the information selected answers or modifies the question originally asked.

More radically, Myron Truman (1992) believes that computers do not merely *subvert* and *exhaust* the *literacy of print*, but that *online literacy* is nothing less than a redefinition of literacy itself (and, of course, numeracy as well)

...technology generally affects... our most basic understanding of what it means to be literate or to be educated, even to think. It is a new way of shaping that most compelling image of who we want to be.

For Peter Scrimshaw (1997) *network literacy* is

the capacity to use electronic networks to access resources, to create resources and to communicate with others.

For Alan November, in his *Teaching Zack to Think* (www.anovember.com), information literacy is not just about how we communicate, but is also about how we relate to each other. He insists that it is about a major shift of control in access to information. We should go further, he believes, define information literacy as a basic skill, and teach children the *grammar of the Internet*: how information is constructed on-line; how to check the sources, and how to validate and value what they find.

In summary, information literacy is the learner's skilful ability to validate and interpret selectively information from digital sources, relating it, with discrimination, to what is already known, transforming it into enhanced further knowledge, and improved understanding. Some learners can do this for themselves, are perfectly capable of *disintermediation*, but many need to be taught the skills. They need the teacher to plan and structure digital learning activities that engage them purposefully. This step would take us out of the classroom and into the virtual library, with inevitable consequences for the culture and place, the rhythm and pace of the traditional classroom lesson.

2020 vision

I believe that we do have the necessary vision, we can see where ICT works in practice; but do we have the technology? Classroom 2000 will provide a comprehensive managed service for ICT for 1224 primary, secondary and special schools, which will include the infrastructure needed by every teacher to develop their competence in using the technology for teaching and learning. £10 million has already been spent between 1998 and 2000 to prepare the ground, through the 'Connecting Teachers' initiative. The initiative provided preparatory training for a cohort of teachers in each school, as well as 6,000 laptops, to allow the first third of the 20,000 full-time teachers to get started. The projected investment of some £350 million over the next 10 years will provide the foundation for transformed Ulster schools. It will change both classroom practice and professional development for teachers. It will allow the best management practices,

derived from the computerization of school administration and management, to spread throughout all schools.

One of the most significant design features of Classroom 2000 will be access, from home to the school network, by teachers, pupils and parents. This double-edged sword has the potential to deepen parental involvement in learning, to the benefit the learners' achievement. Many schools already strive to improve relationships with parents through their home-school links policy. Improved access can also address an insistent, and growing, demand for accountability in education. In the USA, some 300,000 parents in 600 schools already subscribe to Internet services (e.g. www.thinkwave.com and www.homeworknow.com) where both parents and children can see information on their children's programmes of work and progress at any time, receive individualized reports on homework, coursework and tests, and keep track of attendance. Parents can contact and get advice from teachers by email: 90% of the American teachers involved say that this level of communication improves grade scores.

Northern Ireland generally, and especially its economy, stands to benefit considerably from this investment in the education service. The Province could become a world reference site for a workable business model for public/private partnerships in ICT managed services, if it were able to demonstrate the development of the following essentials:

- ⊙ high standards in information literacy;
- ⊙ a safe on-line learning environment, accessible from anywhere, and at low cost at the point of use;
- ⊙ an environment to support learning, which is not only highly individualized, but is also collaborative;
- ⊙ on-line collegial communities of teachers, capable of mentoring and supporting each other through career-long professional development;
- ⊙ strong, interactive, home-school links;
- ⊙ empowerment of educational communities to publish their own resources, designed according to open and distance learning principles;
- ⊙ a thriving market-place of on-line educational content, including diagnostic assessment and high-stakes examination services.

Education technology is already bringing cultural transformation to learning in Northern Ireland. Over the next 20 years will schools become *e-schools*, or go 'out of business'? Given that the best way to control the future is to invent it, the answer is up to Northern Ireland's teachers and schools. Our children, however, are not waiting for their answer, they are *growing up digital* and are inventing their own future.

Leadership 2020

Tom Hesketh and Chris Bowring-Carr

There is a well known truism that the one certainty in life is uncertainty. This sentiment serves as a healthy antidote to any attempt to write definitively about future developments in education. Also, while there is sometimes the temptation in thinking about the future to be fanciful, even utopian, the reality is that developments in education in the next twenty years are to a large extent presaged in the developments of the previous twenty. Additionally, there are advantages in thinking about the next twenty years not in terms of yet more innovation but rather from the standpoint of distilling from previous experience that which we know to be worthwhile— as Robert Persig has put it: “ ‘What’s new’ is an interesting and broadening eternal question, but one which, if pursued exclusively, results only in an endless parade of trivia and fashion, the silt of tomorrow. I would like, instead, to be concerned with the question: ‘What is best?’, a question which cuts deeply rather than broadly, a question whose answers tend to move the silt downstream”. (*Zen and the Art of Motorcycle Maintenance*, 1974, p. 18).

Development is a loaded word. To say that something has developed is to imply advancement from a previous less-developed position. However the word development is used here with no such connotations but rather to signify changes with choices dependent on circumstances and context. When one looks at the education system and its development over the last twenty years, one is confronted by the paradox of fundamental change and little change, living cheek by jowl. Fundamental change in terms of how schools are funded/governed, the curriculum which must be taught, the assessment arrangements. There have been significant changes too, in the wider environment within which schools operate (more fragmented, consumerist, secular, accountable). However, there has been little change in terms of what happens in the classroom or in the culture which is teaching. The key impediment to greater school effectiveness remains the inaccessibility of the classroom to reform efforts, i.e. a stubbornly resistant immobilism to pedagogic change and transformation.

What are the key contributory factors to this pedagogic immobilism? We would want to emphasize that it is not primarily teachers themselves but rather the organizational, cultural, and other circumstances within which teachers and schools operate (anti-collaborative, structural/time allocation factors)

True, there has been a significant increase in both the quantity and quality of educational debate/professional dialogue—paradoxically triggered by developments which many within the teaching profession instinctively recoiled from. For example the sophisticated use of value added methods for determining the effectiveness of schools only emerged after the appearance of league tables in the early 1990s. Similarly, narrow definitions of education which focus only on those outcomes capable of being measured (e.g. education for employability) provided the critical stimulus to more all-encompassing views of education in which process and the less tangible yet nevertheless important social, interpersonal, affective outcomes became worthy of consideration. Imported models of appraisal from the non-education sector proved a catalyst for the emergence within education of models of performance review more consistent with continuous professional development as opposed to regular evaluations of competency-based performance related to profit.

However, professional dialogue has not yet reached the heights required for pedagogic immobilism to be overcome. Why?

The last ten years may be referred to as a prescriptive phase in the evolution of the education system during which there developed amongst teachers the perception that prescribed curricular and assessment arrangements determined not just the ‘what’ but

also the 'how' and 'why' of teaching, thereby stifling pedagogical debate. One inevitable by-product of such stifling of pedagogical discourse was the reinforced absence of a shared language within and across the education profession on pedagogical matters. Additionally, talk about learning is an intellectual and difficult and challenging undertaking. One could hypothesize that the nature of schools as organizations conspires against such exchanges. Lastly, the prevalence of an accountability dynamic (not just governmental but increasingly consumerist) which placed an emphasis on the necessity for schools and teachers to prove rather than improve – (coupled usually with narrow conceptualizations of quality) generated within schools an environment which was not conducive to experimentation nor the development of pedagogic approaches which liberate learning.

Teaching as a research-based profession has not yet happened to any significant extent. Schools as presently constituted are organizationally, culturally and financially ill-equipped to facilitate such. Teachers themselves are insufficiently skilled to engage in such.

However in thinking about the next twenty years and the evolution of the education system from its current starting point, there are numerous trajectories at work which have the capacity to impact either negatively or positively on the efficacy of schooling and learning.

Two discrete sets of developments can be identified.. The first set in terms of its cumulative impact will result in a diminution of the capacity of schools to promote effectively the educative process. The second set, taken cumulatively, will have a more benign impact on the school system, by enhancing a school's capacity to promote effectively the educative process.

[(Set 1) *skills over values; outcomes over process, systems over people, targets over purposes, accountability over development, group/whole school over the individual, duties over rights, make do over entitlement, fragmentation over coherence, cognitive over the affective, achievement over ascription,*]

[(Set 2) learning over teaching, improvement over effectiveness, self-evaluation over other-evaluation, leadership over management, renewal over training,]..

In thinking about the challenges of the next twenty years, the tasks for school leaders and those with a capacity to influence the course of events within schools is to assist the dynamics outlined in set 2 and to minimize the impact of (and ideally reverse) the dynamics outlined in set 1.

Also, the future well-being of the education system will be better ensured if the following processes occur.

Firstly there is a critical need for the emergence of a teacher growth dynamic with infrastructural support both within schools and outside (within the higher education institutions, education and library boards, ELBs etc.) to ensure that the process is sustained.

Encouragingly there are developments underway which will contribute to the achievement of a teacher growth dynamic - continuing professional development will be placed on a systematic footing; emergent performance review processes will focus more on development of performance not development for performance (at some distant point in the future); teacher growth will increasingly be viewed to include values as well as skills with a significant shift of emphasis from training to renewal; teacher as reflective practitioner will become more commonplace with teachers not only self-evaluating against agreed best practice templates but also learning systematically from each other.

Secondly, there is a critical need to align the education support community both philosophically and structurally to this central objective of teacher growth and development. The challenge for the advice and support services is to focus their activities

on teacher development (coupled with activity designed to remove the major obstacles to such teacher development). Education support will become increasingly school-based, and classroom-focused, and be undertaken by those with the capacity to inject both practitioner knowledge and research knowledge into the teacher learning process. One envisages multi-professional support officers operating within an increasingly multi-agency context so that educational, health and social support structures and processes cohere to enable schools to optimize pupils' chances of effective learning. The central task for education managers will be to: keep administrative costs to the lowest possible levels; provide services equitably and efficiently; maximize the funds available for front-line services; identify what front-line services consist of and more importantly how they add value to the work of schools; provide definitive comment on how much value is being added to the ongoing work of schools.

Thirdly, since school leaders will have a pivotal role to play in ensuring teacher development there is a need to ensure that the development processes experienced by heads exposes them fully to the growth experiences required for staff generally. This growth experience must begin with a revisiting by heads to the key issues surrounding the educative process. This is perhaps the central challenge during the next twenty years.

Education is one of the most purposeful activities imaginable in that people learn not just in order to do but in order to become. As a parent/society we are no longer interested in asking how learned children and young folk are but how developed socially, culturally, morally, spiritually etc. they are. Key educative processes (learning, knowledge as socially created, synergy etc) and outcomes (e.g. self worth, interdependence, allegiance, identity, commitment) can only be developed within a genuinely communitarian setting.

The challenge for the education system is that the educative task which is so dependent on communitarianism is increasingly being undertaken within a wider society which is being denuded of its 'communitarian' aspects - isolationism, fragmentation, alienation.

The communitarian imperative, posited above, points to nothing less than a reconceptualizing of school and as a consequence a reconceptualization of headship. We envisage a radical transformation of the processes and values underpinning leadership development as a necessary response to the exciting challenges of the next twenty years.

Recent documents from both the Education and Training Inspectorate and the Council for Curriculum, Examinations and Assessment indicate that there has been a shift of emphasis in thinking about the relative priorities of learning and skills as against content. It is quite clear that enabling young people to learn, and to acquire the skills that they will need as adults has taken on a far higher priority than previously. Teachers, in whatever part of the system they work, if they are to be able to fulfil these demands, will need strong leadership, and a clear sense of what a focus on process will feel like in the day-to-day running of their schools. Leaders will be called upon not only to have a clear vision of what this shift will require, but also be able to convey that vision to all staff.

To help achieve this goal, in-service development for senior staff in schools needs to parallel the above mentioned shift from content to learning and skills. The implications for leadership development open new vistas on what is possible.

Leadership is not going to be taught; our aim increasingly will be to set up courses during which the facilitators shall, by putting forward ideas, by exploring values and ethics, by looking at the core activities of educational leadership, invite people to consider what educational leadership entails, and challenge those ideas until a bedrock is reached. There is no store of content that facilitators can 'get across'. There is no formula that can be transmitted. What can be created is an atmosphere, a circle of trust, in which people can explore tentatively. Evidence of qualities of leadership will emerge - not from all but from most. Individuals and teams can be encouraged, supported, prompted, prodded and pushed to become more effective as leaders. What the facilitators need to be able to do is to respond to the participants' needs - by being flexible, open to their demands. Their

needs will emerge as they are listened to; especially important will be listening to those who claim not to have any needs. The facilitators do not have the answers; they have the responsibility of enabling the participants to find their answers.

If this premise is accepted, then rather different courses will develop over the next year or so as elements of this new approach are built in to existing courses. Certainly, within ten years or so, the type of course on offer will bear very little resemblance to what is current. Conference programmes will be reinforced and extended by reflective activities of various kinds, and by such other information and support as can be put in place. This extension means making the best possible use of all the various opportunities and resources available, including those based in the ELBs, reading lists, visitors, and, increasingly, on-line support and mentoring. It is the use of ICT, through which individualization can take place, that will be the major difference between courses now, and those envisaged in ten or twenty years.

As with teachers in the classroom, people involved in running courses will start from where the participants are, and for one very simple but overwhelmingly powerful reason. The major block to any fresh learning is what has been learnt in the past. Prior knowledge can often shut out new knowledge. A new approach, a new idea, a new way of looking at a problem will be rejected by the individuals whose experience has taught them that the methods they have always used are the only ones. What the facilitators need, therefore, is to listen to the responses to the questions, and listen individually and collectively, having created a sufficiency of trust for the layers to be scraped away. Mayer-Smith and Mitchell (1997) describe the process very clearly in their description of enabling student teachers understand the constructivist approach to teaching:

One inference that can be drawn is that the teacher should not worry about finding the single, perfect explanation or activity to teach a particular concept. Instead, they should plan and create multiple and varied situations that would permit students to explore and re-explore the given concept, revisiting the concept regularly in a spiral curriculum ... It follows that lessons will need to become more fluid and interactive as the teacher learns to respond to student questions that, on the surface, may appear to as 'red herrings', or follow up on students' ideas as they raise examples that the teacher may not have intended to discuss. Inherent in this model is the need for the teacher to be flexible and responsive in the design of lessons, and open to the idea of sharing intellectual control of the agenda with the students (p 132).

The objective is to probe the prior knowledge of the participants, to create an atmosphere in which participant and facilitator can relax into an open discussion of what lies behind the assumptions and beliefs that both bring to the programme. Once there is a clear idea, or as clear as is possible, of the parameters of the world in which the participant and facilitator live, then a start can be made in looking at ways in which a new approach, a new slant might be grafted on to what already exists.

At this point facilitators will need to have a clear set of answers to questions such as:

- Why does leadership matter?
- Why do school leaders need to become more effective?
- What is meant by effective leadership?
- Why should anyone sign up for one of the programmes, and what should they be able to take away from it?
- What is the moral dimension of leadership, and how can it be developed?

When therefore, there is a challenge to the prior beliefs and stand-points it must be from a very solid platform. Certainly that prior knowledge must be challenged and then, and only then, would facilitators be in a position to help gentle the person into accepting that there might be other approaches. But those other approaches must come from a clear,

articulated philosophy. The task is a constructivist one - to build on what is there, perhaps altering what is there, but the over-riding implication is that time is spent in finding out what is there.

The course will have structure; it will have contributions to thinking - from the facilitators, visiting speakers, the books and the papers that are suggested for reading, on-line links to people in a variety of places. But the structure and the inputs are means to the end of enabling the participants to open up, start to explore their world anew, and then reflect on their own current practice. There will have to be a very great flexibility - because the facilitators do not know what the participants will bring to the course. Those who run the course are responding to the participants, not the participants responding to the organizers. The questions will be many and varied, as will the comments, and from time to time the unscripted request will result in the honest admission: "I haven't a clue. But together we'll find out."

The course will be marked by a considerable variety in terms of pace, method, style, content; use will be made of case studies, role-play activities, discussion groups, pair work, mentoring, coaching and the rest - as well as the more traditional presentation for which there is place. One central feature of all programmes will be the requirement that participants keep a 'Journal'. The Journal will be the means by which everyone can focus on the application of his or her learning. Through a close focus on event and reaction to the event and then reflection on that reaction the writer steadily builds up a picture of 'me as leader in action'. The Journal will show patterns of behaviour; and provide a means of charting growth in understanding and depth of thinking. It will show, one hopes, a steady increase in the ability of leaders to be self-critical and to know where to go to start to sort out weaknesses. It will show how the accumulating variety of theory is being applied to the reflection on action. It will form the starting point of any dialogue between participant and mentor; since without it there are only cloudy and ill-organized impressions. The Journal will become a physical manifestation of a core underpinning belief of any development opportunity: that it is active learning that the participant is involved with, not passive listening.

There will be a need to make clear the crucial role of active reflection. The Journal is one manifestation of this but not unique. There will be constant requests for participants to show through a variety of outcomes how the learning they are doing on the course is being taken back to school and used there, and be self-critically aware about what is going well and what is not. There is the over-riding need to look to ways, mentoring face-to-face and on-line, in which the work done on the course can be continuously scrutinized, analysed, and embedded.

One of the main aims of the development process engaged in by aspiring, new and serving heads will be to inculcate the idea of the 'Learning Organization'. The central aim of schools is, or should be, to enable each child to become an autonomous learner. Schools staffed by principals and teachers who are not learners themselves cannot enable others to become learners, except at the most superficial and replicative way. Our courses will be exemplars of, therefore, a community of learners, interacting with a range of stimuli, reflective, articulate, growing. As the head of Champion School (in Middleton et al 1999) said: "Good teachers are good learners, and *what* they learn may be secondary; they must *want* to learn" [emphasis in the original].

In a conference at Coleraine (June 2000), Professor J West-Burnham stressed that what is now required is a shift from management to maintain to leadership for transformation. He began by asking: "Why transform?" and his answer lay in looking at the rapidity and fundamental nature of the changes that society is going through. It is from these changes that the input for courses must stem. Maintenance, how to 'do it better', is simply not a responsible answer to the changes that are taking place. His second theme - 'The School of the Future' is the starting point for the dialogue that course leaders and participants embark on. What is meant by 'community'; by 'learning and understanding'; by 'school'? The dialogue that starts around these and other key words will begin to open up areas of values and understanding and this is the point when course leaders stop and listen to the

responses of the group. Differences - arguments - challenging questions - pause - reflection.

His third topic - High Performance Schools - was not a prescription - it was based on a set of values. One person's high performance school is based on examination results; another's on hushed, subservient discipline; another on maximizing the enjoyment of learning. On any leadership course there will be all those and more, so the course leader will have to start to ask - how does that definition of 'school' or 'effective' or 'learning' fit with 'vision and values' that have been expressed in the school's mission statement? Given that leaders need to intervene, on the basis of which value-driven criteria do they intervene? What do we mean by 'high expectations'? Why are our children going to school? Is there, in other words, a coherent set of values that runs through everything that the school says and does?

His next theme was: 'The Leader as Heretic'. He stressed that the leader is the person who challenges assumptions, who asks: "Why are we doing this?", who is continuously peering at the system and asking if it can do better by doing things differently. This theme was a first-rate example of how a course on leadership cannot be solely a taught course. No course leader can have a hand-out on how to be a heretic. The course leader must *be* the heretic.

Professor West-Burnham's last quotation: "Let us cultivate our humanity", might well be the foundation for future leadership courses. Through Socratic questioning, probing and listening, and asking for clear outcomes, we are striving to cultivate the humanity that is in all of us.

In leadership courses in the future, the focus will be on learning, and on the creation of a learning organization. Aspinwall and Pedlar (1997) suggest that learning can be categorized into four types:

- ⊙ Learning *about* things
- ⊙ Learning *to do* things
- ⊙ Learning to become ourselves, to achieve full potential
- ⊙ Learning to achieve things together.

(Adapted from Aspinwall and Pedlar, 1997, p. 230)

As Middleton et al (1999) say, because of the pressures of externally imposed change on the educational system in recent years, the focus has been on the first two. What leadership courses need to do is to change that focus to a concentration on the last two. What is needed is the inculcation of a passionate belief that this school is good but it can be better, and it will be better because it will become a learning school.

Globalization 2

Gordon Topping

At the turn of the 20th century Elbert Hubbard the prolific writer and philosopher observed:

The world is moving so fast these days, that the man who says it can't be done is generally interrupted by someone doing it.

Now at the turn of the 21st century when the changes facing society are massive, far-reaching and all-embracing as well as taking place at breakneck pace, predicting the future even 20 years ahead is anything but an exact science. However, there are identifiable trends which are already having an effect on society in Northern Ireland and on our education service. What is clear is that in the next twenty years they will become even more significant. One of the most important of these is globalization.

The British Government's Performance and Innovation Unit identified globalization as one of the five major forces driving change in the future along with population growth, scientific innovation, environmental change and post-materialism. Of course, all of these have a global dimension.

So what is globalization? Whilst scholars have produced a number of definitions, there is a general consensus that globalization consists of a variety of trends and forces, economic, social, cultural, technological and political which tend to draw the peoples of the world towards a common entity. To some degree globalization is not new. The different forms of imperialism practised over the last two millennia have been attempts by various nations to achieve world domination of trade and culture in order to create a common entity. The earliest form of modern globalization is economic globalization characterized by a number of identifiable economic trends.

First, there is the transfer of capital around the world in search of profit. This movement of capital can provide investment in the industries of the moment such as Internet-based companies, the so-called 'dot.com' companies. It can cause currency fluctuations as in the 1980s when the devaluation of the British currency, created largely by speculators, forced the UK to leave the Exchange Rate Mechanism. Secondly there is the development of immensely powerful multi-national companies who are dominated by the economic forces that affect production, such as labour costs, overheads and costs of raw materials. They ignore national boundaries and locate where economic conditions can be optimized. As a result over recent years there has been a trend towards greater global free trade with a freeing up of the movement of labour, best illustrated by the developments within the European Union.

Whilst economic globalization has been developing over the past half century or so, there are other perhaps even more powerful elements of globalization now emerging. The greatest of these is associated with the development of new technology. The convergence of the technologies associated with telecommunications, the computer and the television has provided a means, which allows vast amounts of information to be transferred around the world in milliseconds. It also allows people anywhere in the world to communicate more effectively, so that someone in Hong Kong with access to the Internet can read the Belfast Telegraph before it is delivered to homes and shops in Belfast. They can see what property is on the market and what jobs are being advertised and of course use this information to their benefit. The use of the worldwide web by commerce to assist in carrying out its business has opened up the world to local companies, providing a global dimension and the potential of huge markets. This new

multi-media technology is also a potentially powerful teaching tool for schools, opening up masses of information to young people and their teachers in an exciting and stimulating format.

It is only with recent decades that the interdependence of all peoples of the world is beginning to be confronted. In environmental terms what happens on one continent can rapidly affect people on another continent, thousands of miles away. The Chernobyl disaster is one such example. Of even greater environmental significance is the headlong race for greater industrialization amongst developing countries. The drive for global industrialization exploits scarce resources, creates pollution and results in global warming, the destruction of the ozone layer, and increasing problems of waste disposal. The crisis of the North/South divide, between the developed countries of the Northern Hemisphere and the developing countries of the Southern Hemisphere is best seen in the debt the Third World owes to the developed countries. It is also characterized by the movement of labour intensive business to the Third World in search of cheap labour. For example, the Student Loans for UK students are processed in Sri Lanka. The demonstrations and riots in Seattle during the World Trade Conference were a reaction against these global trends, which lead to an increase in world poverty and exacerbate the divide between rich and poor.

Whilst we are undoubtedly in the middle of economic, technological and environmental revolutions of global consequence, we are also facing the equivalent of the Renaissance in thinking. At the forefront of this Renaissance is the belief in the intrinsic value of every human life and the drive to establish human rights across the globe. In many countries human rights legislation is being put in place and often as in Northern Ireland it is complemented by an equality agenda. For children the principles enshrined in the United Nations Convention on the Rights of the Child has also been the basis for statute. In Northern Ireland the Children Order and many recent pieces of education legislation are based on the UN Convention.

Over the past few decades there have been massive societal changes. Across Western society there has been an increasing incidence of divorce and family break-up, with the UK leading the field, with one in three marriages now ending in divorce. Some would argue there is a campaign against family values and the institution of the family. There is an increasing incidence in violent crime, sometimes racially or religiously motivated, often against women and even against children. Many would argue that there has been a decline in moral standards associated with the decline in church-going, resulting in a society with declining standards searching for hedonism. There has been an increase in drug abuse, alcohol abuse and teenage pregnancies and a dramatic rise in suicide by young men. Although people live longer, are healthier than in the past, are generally more affluent and have more leisure time, the changes which have been described depict a society in turmoil. Schools and teachers if not seen as part of the solution are portrayed as part of the problem.

There are many other examples of globalization. In food, Chinese and Indian food is everywhere. In sport, most English Premier League football teams have non-English team members, indeed Chelsea recently played a European Championship match without one English player. Then there is the creeping Americanization of societies all over the world, led by McDonalds, Coca Cola and the film industry.

This brief description illustrates that globalization is a relentless, inexorable trend which is affecting how we live now. By 2020 it is likely to have an even greater influence on our lives. Globalization however also has unexpected consequences. The nation state, the expression of culture, race and language for the past few centuries often finds itself impotent in the face of these unremitting trends. There have been two responses, the first the creation of super states such as the European Union. Secondly, the creation of more smaller states where people of similar culture can be recognized and feel secure as in the states created from the former Soviet Union and Yugoslavia. The UN expects the number of states to increase by 20% by 2050.

So what does this mean for our education service in 2020? Clearly globalization creates a real challenge which needs to be addressed by educationalists over the next two decades. During this time and beyond we will be educating our young people for 'the global village' and instilling in them skills for lifelong learning in a rapidly changing world. In facing up to this challenge educational planners need to be putting in place a series of developments which will ensure our education service can produce young people who have the skills, knowledge and values able to cope with rapid change on a global scale. The first of these steps is already being initiated because the increasing impact of globalization will affect what we teach our young people 'to prepare them for adult and working life'. Of course young people in twenty years time will need to be literate and numerate, but the pupils of 2020 will need to have an education that broadens their horizons and enables them to take a global perspective on issues.

All British governments during the final decades of the 20th century concentrated on establishing an education service whose outcomes were based on the skills needed for a wealth generating economy, able to compete in a global market. Whilst this will still be an important aspect of our education service twenty years from now, the emphasis will need to shift to provide a better balance. That balance must include the citizenship agenda and especially its global dimension including the interdependence of peoples, social and moral responsibility, and community involvement. Schumacher almost 30 years ago summarized this as 'thinking globally and acting locally'. The Northern Ireland Council for the Curriculum, Examinations and Assessment (CCEA) is presently reviewing the Northern Ireland Curriculum and consulting widely on its content. It is anticipated that the implementation of the revised curriculum will take place in 2002, it will therefore be 2014 before the first young people who have completed the fully revised curriculum will leave school. In this context 2020 is not too far in the future and it emphasizes the importance of getting curriculum content right now.

Whilst it is important to get curriculum content right, it is also important to ensure that teaching and learning styles are improved and that the latest research into effective learning is harnessed. The introduction of new technology over the next decade will have an all-pervasive effect. Through the computer or the television screen, pupils and teachers will be able to access information worldwide, to communicate around the world by e-mail and video conferencing and so enhance their life skills. The consequences of this will be far-reaching affecting teacher education, classroom practice and even building design. In some countries there is a growing trend for parents to educate their children using resources downloaded from the Internet. In Northern Ireland there is some evidence that the trend towards home education has already begun and may become more popular. Some schools in the USA have begun to use distance learning techniques to create greater efficiencies by increasing pupil teacher ratios and using web-based teaching materials. Indeed, at least one virtual school has been created with an enrolment of 2300 pupils, 90 teachers and no school buildings. Initiatives of this kind will prove very attractive to governments where an education service can be delivered with reduced face to face contact with teachers resulting in efficiencies within the education service without a loss in quality.

Over the past thirty years during a period of community strife in Northern Ireland, schools have generally been able to maintain good discipline and harmonious relationships. Results from our schools have improved to levels where they exceed all other parts of the UK. In recent years however substantial evidence has become available to show that the impact of societal changes is beginning to affect schools. There has been a dramatic increase in suspensions and expulsions of pupils from schools. Teachers' Unions have highlighted the increase in attacks on teachers by pupils and parents. For some pupils the academic nature of the curriculum is proving to be unsuitable to their abilities and interests, with resulting increases in truancy. Policy makers must recognize these trends now and take steps to ensure that over the next twenty years provision matches needs.

The human rights agenda and the increasing emphasis on social inclusion and equality of opportunity could also have an impact on educational structures. For children with special needs many countries have adopted a policy of integration into mainstream schools. In

the near future there will be a debate on what inclusion means within our system and what effect it will have on the present structure of special schools. For other children there will be a need to ensure that those who come from disadvantaged backgrounds are not excluded from educational opportunities and that all children have equality of educational opportunity. A statutory common curriculum, which is the entitlement of all pupils, is one approach to meeting this aspiration. Transfer from primary school to secondary school will take on an even greater significance to ensure that some children are not disadvantaged. The debate on this may lead to a different structure being adopted.

One of the major advantages of globalization is that information can be disseminated worldwide almost instantaneously. The educational research community shares not only findings from research, but reports of good practice and evaluation of recent innovations. These research findings are assisting the development of government policies, which encourage school improvement and they are learning from one another. Research around the world has identified the key elements of school improvement, such as school leadership, teacher competence and classroom practice. In the UK, government is putting in place key elements of the school improvement research findings such as a Leadership College. In Northern Ireland the Regional Training Unit (RTU) in partnership with the education and library boards' advisory services (CASS) fulfils this role. The premise on which they were established confirms that leadership and staff development in our schools and other educational establishments must be a priority. Clearly the RTU and CASS will continue to play a part in managing change in the future, in addition to enhancing leadership qualities amongst managers and ensuring staff are fully equipped to fulfil a new and developmental role.

So what will the Northern Ireland school system be like in 2020? The curriculum will be broader and more flexible than at present ensuring that there is equality of educational opportunity for all pupils, and its delivery may not always be in classroom. It may be in the workplace, in libraries or at home and new technology will play an important part in helping young people learn. The selection procedure from primary to secondary education will almost certainly be different, possibly delayed until pupils are more mature. As life becomes more complex so partnerships are essential to successful services. The private sector is already supporting schools through contracted services. This will become more common as will the use of expertise other than teachers to assist children's learning, encouraging greater involvement of parents in their children's education. Hopefully the education process will take place in a society at peace with itself. A society where the education service will have played and will continue to play an important role in developing young people who have developed a respect for diversity, are tolerant of others' views and can play a constructive role in the community in which they live.

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