



Joker in the pack

A think piece from the EMLC and NCSL Futures project

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This think piece reflects a conversation between, Theo Wright, Head of Technology Research, British Educational Communications and Technology Agency (Becta) and Jason Brook, Headteacher William Parker School, Daventry Northamptonshire, as part of the EMLC and National College for School Leadership (NCSL) Futures project. Also participating were Sue Blackburn, NCSL Leadership Network Regional Leader and Ruth Roberts, William Parker School.

The views expressed are personal and do not necessarily reflect those of either organisation.

Edited by Karen Carter, Chris Williams and Peter Smith

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Introduction

The Futures project

The Futures project is a joint venture between EMLC and NCSL. A key outcome of the project has been the generation of a series of think pieces designed to support the development of futures thinking. This first series has been developed by headteachers in dialogue with senior business leaders. In the future, we propose to undertake similar work with moral, political, community and cultural leaders.

The aims of the project are:

- to stimulate debate
- to give local leaders a voice in shaping education for the future
- to provide materials and processes to help schools think about and plan for the challenges of the future

The work of the project builds on the Organisation for Economic Co-operation and Development (OECD) scenarios for the future of schooling and FutureSight, a major NCSL initiative to support futures thinking in schools.

Our next steps are to develop tools to help stimulate debate in our school communities, supported by seminars and online materials. For more information please visit www.ncsl.org.uk

The think piece format

To give consistency to diverse views, the think pieces in this series use the same format which is made up of six component parts.

Key components

1. **Viewpoint:** who is talking
2. **Mapping the territory:** ideas and areas of debate
3. **Over the horizon:** a business leader's perspective
4. **A view from the bridge:** what the world of 2030 might look like
5. **Futures learning:** a school leader's perspective
6. **Pause for thought:** questions to challenge thinking

Key ideas for futures thinking

As educational leaders, we are firmly in the futures business. Our role, after all, is to prepare young people with the skills and personal qualities to live long, happy and productive lives. Lifelong learning, changing employment patterns, a world where our children are prepared for jobs yet to be invented using technology yet to be dreamt of – are all ideas we use to shape planning. Our national headteacher standards even talk about 'shaping the future'.

Futures thinking gives us a shared language and tools to step outside the present. To think about the future, we first have to try to understand the trends influencing the present. These are powerful and pervasive areas of change, gathering momentum like a stone rolling down a hill. Work by the OECD in the late nineties identified five areas:

1. **The nature of childhood and extended adolescence**
 - the protection and nurturing of childhood continues for far longer
2. **The knowledge economy**
 - instant global communication
 - shift to knowledge working in post-industrial Europe
 - new technologies
3. **Inequality and exclusion**
 - the proportion of older people in Europe rises and they become richer
 - young people are poorer- with this is the potential for alienation
4. **Changing family and community life**
 - nuclear and extended families are less prevalent
5. **Some broader developments**
 - wide and increasing disparity in global income brings higher levels of economic migration

Work undertaken in England by NCSL and others in 2002, applied a reality check to these trends. There was debate about their impact on schools across the country, but universal agreement that they represented powerful forces shaping the work of schools. At the time, headteachers involved in NCSL's Leading Practice work identified a shift in the location of values from religion and family to media and peer group. Further work has identified, for young people, important issues around the complex nature of identity rooted in location, ethnicity and religious belief and at its most extreme, radicalisation.

From present to future – tracking the trends

These irresistible trends impact on our work in schools each and every day. They span moral, political, social and economic analysis. Out of them emerge key questions, moral imperatives and contradictions. ICT brings instant communication but the potential for physical isolation. Where families do less to nurture, schools are challenged to place themselves at the heart of their community as a force for support, social cohesion and intergenerational learning. Children live uneasily in a highly protected UK society which also, paradoxically, condones their early sexualisation.

Challenges to shifting patterns of employment, continuing skill development and the need for robust interpersonal skills mean that schools have to be adept at helping children to negotiate relationships and difference. Economically and politically, there is a push for better functional skills and higher level qualifications to enable the UK to compete in the global market. Finally, there are pressures on schools to enable children to make more discerning choices about learning to reflect the flexibility of new technologies and in common with best commercial practice, to develop a personalised offer for every child. At its most extreme, this could involve the end of schools as we know them.

Identifying new trends

From a 21st century perspective, it's possible to identify new trends related to sustainability, values and personalisation. As a starter, it may be useful to debate and reshape these and to consider the following questions.

Pause for thought...?

- **Are these genuine trends, with the power to shape everything we do, or just contemporary issues and concerns?**
- **Are there other trends we need to describe?**
- **What the implications for how we shape education?**

- **Sustainability and environment:** The start of the 21st century has brought raised awareness that natural resources are limited. There is also increasing understanding of the impact of fossil fuels on global warming. From initial scepticism, there is now widespread, but not universal, scientific and political acceptance of climate change. This is a recent but powerful trend. Its potential impact spreads to every aspect of education and lifestyle. There is a growing awareness that new technologies need to be found and increasing political tensions as leaders strive to balance economic needs driven by demands for energy and growth with a wider responsibility to conserve and build for the future.
- **Identity and values:** Global mobility has also brought tensions over identity and related shifts in patterns of belief. These changes have the potential for long-term impact on what we value and how we live our lives. In northern Europe and in particular, Britain, the influence and role of the church has diminished. Personal values, once shaped by religion and family, are now increasingly formed by media and peer group. By contrast, in other parts of the world, religion continues to exert a powerful influence. For some citizens of multicultural Europe, our race, where we live and what we believe create tensions over identity. Where this is associated with other feelings of injustice and deprivation, it leads to alienation and radicalisation.
- **Personalisation:** A final trend increasingly recognises and focuses production on the uniqueness of the individual. This aspiration emerges from the capacity of new technologies in a competitive business environment both in products and services. This is a trend which is now increasingly impacting on education, with the potential for more flexible provision or de-schooling.

Futures thinking in action

These ideas for futures thinking are explored in the series of think pieces produced by the Futures project. Out of such analysis, future thinkers identify possible, probable and preferred futures. They also develop scenarios. These are powerful tools. They allow us to walk around in the future, experience how it feels to be a student, a teacher or facilitator of learning or a parent, in such a world. These spaces do not so much allow us to predict the future as to take the time to pause and think a little. At best, such experiences empower us to identify our preferred future and work together to make it a reality at school, regional or national level.

Chris Williams, 2007

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Theo Wright in conversation with Jason Brook

Viewpoint

Becta is the government's lead partner in the strategic development and delivery of its e-strategy 'Harnessing Technology'. Its main objectives centre on influencing the strategic direction and development of national education policy so that it best takes advantage of technology. In order to achieve this, Becta must help schools to make strategic and effective use of technology to improve educational outcomes by developing the ICT infrastructure, resources and effective practice.

However, as schools strive to influence the future of education; education does not have a major influence on the technology which is often deemed to be an integral part of the future. Although an insight into developments in the short and medium-term can be provided, for example, via Becta's TechNews service <http://partners.becta.org.uk>; we cannot predict the long-term future of technological developments and as such technology will always be the 'joker in the pack'.

Mapping the territory

Cast your minds back 30 years to 1977 and ask yourself what has really changed?

Houses have changed little in their construction, cars do not hover, doctors still use stethoscopes, we do not wear tin foil clothes and schools are still easily recognisable with timetables and teachers. However, the technology that supports this infrastructure *has* changed.

It is clear from recent developments that education does not drive forward the developments in technology; rather, we are faced with the challenge of finding the best way of harnessing the technological trends to improve the way we learn. Trying to predict the outcomes of future technological developments can only be speculative.

This think piece will not predict the future of technology, but it will explore possible trends in new technologies and look at how these will impact on our lives. It will assess the challenges faced by school leaders and argue that technology may not be a panacea to the delivery of effective personalised learning.

Over the horizon – a business leader's perspective

It is very difficult to predict future developments in technology, but it is clear that a small number of specific developments will have a significant impact on our lives. We just don't know what they are yet. An example of this is the mobile phone. Originally it was conceived as a portable telephone that would allow verbal communication outside the office, but within a very short period of time it has evolved into a hand-held communications device that has not only increased hugely in its functionality, but has impacted on us socially. A new language has evolved through texting, we now have the capacity to capture moving images, store huge quantities of data and movement of the phone can be tracked.

The trend suggests that the personal device will increase further in functionality. It will represent each unique individual and will eventually be attached both physically and psychologically. The challenge for school leaders will be to harness its power in a learning environment.

Social software has been embraced by young people in a way that could never have been predicted. If this could be harnessed for educational purposes, then it might be possible to use it to support the growing trend in personalised learning. People from outside the school could review and have an input into the child's work and the student would be able to input into other people's work.

What has really changed since 1977? Social habits have changed, but by and large our institutions haven't. Intelligent software is likely to accelerate these changes in social habits. Software will be able to represent you when you are not available. It will monitor your interactions, communications, behaviours and responses and learn from these. As a result it will be able to respond to emails on your behalf, carry out low-level background tasks for you and make decisions in your absence.

We will see an increase in digital persistence – the retention of information about all the things you have done. In essence, a log of your history will be maintained in a digital format. We could see an increase in monitoring devices at home, at work and at play. There is the potential for all conversations to be recorded, all activities on the internet stored, what you have written and what you have researched, all movements tracked when on the bus or in the car through handheld devices. Data about your well-being maintained through a biological interface. Digital persistence raises a number of difficult issues that we will need to consider and resolve over the next few years.

A view from the bridge

What will the workforce look like in 2030? We are seeing the start of a trend for online business, but not everyone will be an online entrepreneur and the changes in the way most of us work will be subtle and gradual rather than sudden and dramatic.

Technology will support a more dispersed workforce working from home, but technology based companies, such as Google, prefer employees to be together to support the development of the more creative aspects of their work. By working face-to-face as a team, the workforce is proving to be more productive. However, technology developments will allow more effective monitoring of remote working and, as such, employers may be more inclined to encourage it.

The development of schools will be age related. Primary schools will remain largely unchanged in terms of structure and organisation, primarily because of a younger child's underdeveloped skills to learn independently. However, through technology more activities may be undertaken at home under parental supervision that will be brought back into school. This will lead to a blurring of the edges between learning at home and learning at school.

The trends of increased online learning and tutorials in higher education will filter down into secondary education. However, these changes will not have much to do with technology, rather they will be driven by social factors. Technology will provide a supportive infrastructure around the learning of an individual, but it will not take the place of a teacher. Technology will enable, but it is not on its own sufficient to achieve, effective personalised learning.

Futures learning – a school leader's perspective

Our challenge as school leaders will be to discover how we integrate the technology that is already available into the learning experience of the students so that it enhances their learning. However, as education grapples with this dilemma using current technology, new and exciting technologies will have been developed. These are the technologies that will enthuse, excite and challenge our learners, but finding an educational use for them takes time.

Our students have embraced the concept of social websites to a level that professionals had not anticipated. Harnessing the power of this approach to communicating and learning could be a very powerful tool for school leaders. However, our challenge will be to find a mechanism by which we can monitor its use. Without an ability to monitor this we would not be able to assess its impact on the quality of learning undertaken by our students. There is a paradox; monitoring may remove the very thing that currently attracts our students to the concept ie that of complete freedom to express themselves in a manner that they wish, with the knowledge that they are not being monitored, judged or assessed. Will it lose its attraction to students if we embrace its use in school and it ceases to be fun?

I have argued that technology itself will not be the panacea to allow personalised learning to take place in schools; an argument often heard in current leadership discussions. However, technology will allow a more topic based approach to learning and will support skills-based learning rather than the content-based learning we commonly experience in education. The content is so easily accessible now through the internet, what we need to teach students is how to use the vast amount of information that is available to them. We need a sea-change in our approach to learning. Representatives from industry are telling us they will need a workforce with a first-class skills set rather than first-class knowledge. What we now face is a dichotomy between the demands of universities and the government through data driven targets and the demands from industry requiring a workforce which displays the ability to know how to learn and how to solve problems.

Pause for thought...?

- **How do we use technology in school?**
- **What impact does technology have on learning?**
- **How do we engage the enthusiasm and skills that are evident in students' personal use of these technologies and apply them to education?**
- **In seeking to meet the demands of employers, what are the enablers and barriers to moving from a content-based curriculum to a skills-based curriculum?**
- **What level of information about our students is desirable?**

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