

From

Their Space

Education for a digital generation

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“Young people are spending their time in a space which adults find difficult to supervise or understand...”

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The world has changed so why haven't we?

An agenda for change

The history of the internet is one of an ever-changing set of machines and technologies with a particular set of social benefits and behaviors hardwired into it - of networks, participation, collaboration and co-production. This set of behaviors should have huge relevance for the way we see the relationship between new technologies and learning.

Although some view the genesis of the web as a piece of military technology, in reality it was a tool for scientists to share information. The idea that information should be free - that you don't have to pay to send an email - comes from the way that the original internet protocols were set up. It is still the case that anything online is subject to review and comment, even if not on the site where it was originally posted. In a recent book, Pekka Himanen tries to explain the 'hacker ethic', the passion for technology that drives hackers to spend hundreds of hours programming code quite often for no financial gain. He describes the seven values of the hacker ethic as: passion, freedom, social worth, openness, activity, caring and creativity. Even for the everyday user, the internet continues to challenge what we think of knowledge and where that knowledge can be found.

Throughout this report we have argued that the current generation of young people will reinvent the workplace and society. And they will do it along the progressive lines that are built into the technology. The challenge for schools is to take the tools that are currently available and use them to support and in some cases challenge traditional teaching and learning techniques. Schools need to recognize that the change in behavior has already happened, accept that the flow of knowledge is both ways and do their best to make sure that no child is left behind.

The last chapter spoke about releasing resources and reconfiguring relationships in schools in order to provide learning experiences that are both more engaging in the short term and valuable in the long term. Crucially, this would enable schools to reconnect with what young people are currently doing, and support them to develop the skills they will need in the future - from collaboration to creativity, self-confidence to media literacy. This shift in values and ethos is crucial to create change in schools. However, changes at individual school level are not enough. The potential needs to be grasped at multiple levels of the system, at the same time, in order to have a powerful effect.

This chapter lays out a set of opportunities and challenges for the government and for school leaders and their staff. These suggestions are all drawn from the conversations we had with young people operating within the education system as it stands. This agenda for change points towards an educational experience that would begin to bridge the gap between the learning that young people are doing outside the classroom and that which goes on in schools.

Government

Head teachers often bemoan the fact that they operate within a centrally driven, top-down accountability context with a content-laden curriculum. This creates a culture where it is incredibly difficult to take risks. Although this report has looked at some exemplary schools working in innovative ways, they are doing so despite the system. Part of the response to address this is undoubtedly about developing the national curriculum to give more emphasis to creativity and innovation, but curriculum and assessment are only one part of the puzzle. In the same way that distributed leadership can foster innovation and creativity in schools, we need a strong national agenda that supports and enables schools to make change on their own terms.

Control of the Creative Portfolio

The recent Roberts Report 'Nurturing creativity in young people' recommends that every young person should be given the opportunity to build up a creative portfolio alongside more traditional forms of assessment. This will be a resource for students who are achieving in different spheres to capture and share their work with potential employers, friends and higher education institutions. We argue that to gain real credibility, young people need to be given full control over who has access to this portfolio and when. Children are already posting an increasing amount of content on the web and this leaves them without the option of controlling who is able to view it, something which could have repercussions when they enter the workforce. Through the introduction of a Creative Portfolio we need to give them ownership of a system which allows them to identify their own milestones, tag their inputs in a number of ways and control levels of privacy and audience access.

Combating the traditional digital divide

Policy-makers need to continue to address the traditional digital divide by working with schools to maintain efforts to ensure that all children have personal access to digital resources. While fears around the impact of the digital divide in terms of access to hardware have lessened in recent years, research indicates that there is a small minority that is missing out. This group of learners is often the most vulnerable to being left behind academically, making the existence of yet another inequality even more damaging. A national strategy needs to set this agenda, while recognizing that schools are uniquely positioned to identify and meet the needs of their students. Backed by government resources, the leadership and responsibility for this initiative needs to be concentrated at school level. Schools should take responsibility for delivering the hardware, whether this means a laptop, tablet or a mobile device for every child. Where such an investment is not sustainable schools could look for more creative ways of supporting the community.

Capacity-building and consultation with parents

Alongside this investment in hardware there needs to be a much more sophisticated understanding of how investing in hardware impacts on families. What role do families play in its ultimate success or failure? We know that technology is simply a tool, and without a social context that promotes creative and constructive use it is unlikely to achieve its full potential. Policy-makers need to work with schools to provide parents with the skills to help their children interact with technology confidently and safely. Backed by more research about how to meet the needs of hard-to-reach families, resources should also be made available for IT classes for parents as well as children. This further develops and extends the trend of schools being extended family support centers.

Users as designers

Over the past decade pupil voice has raised up the policy agenda, but so far it has failed to capitalize on children's expertise in technology. By seeking to further promote and share effective practice in schools' use of the 'student voice', policy-makers could empower children to participate meaningfully in their school. Technology represents both a route to doing this (through school websites, wikis or MSN-style debates) and a reason for doing so. More broadly, the Children's Commissioner should convene a working group of children to advice on children's use of technology. Contributions could include producing age-appropriate safety or 'usefulness' ratings for websites.

Bringing homework and coursework into the twenty-first century

The skills of memorizing and recalling which are so integral to the assessment system as it stands today will be considered far less relevant for the employee of the future. The assessment system needs to be developed away from these skills of memorizing and recalling towards the essential skills of evaluating information, synthesizing different sources and using these to produce analyses rather than 'right answers'. The answer to plagiarism does not lie in banning course work. We recommend that the nature of the questions asked is updated to reflect the tools and skills of the current generation young people.

School leaders

School leaders are key actors in re-imagining schools for a digital future. They have to recognize that their students are a resource to be unleashed; that they have the knowledge, skills and understanding to contribute to and develop their own learning experience. This approach to teaching can be scaled up to reframe the role that young people play in the whole school system. Leaders need to think innovatively about the resources already within their school and how to mobilize them all to make maximum impact, from reinvigorating ICT lessons, to embedding technologies across the curriculum. This is about focusing on small levers with the potential to create big change.

Reverse IT lessons

School leaders need to encourage teachers to move away from reliance on directing children's learning in ICT and towards acting as facilitators or guides. Given children's confidence with technology this change would align the classroom to the outside world. As our research demonstrates, children are already in a position to teach adults about digital media in their everyday lives. Consequently the current model of ICT lessons fails to acknowledge their expertise or their exploratory approach to learning.

By 'reversing IT lessons' so that children can share their knowledge with other pupils and with their teacher, school leaders can pilot an approach that could see pupils taking ownership of their learning across the curriculum.

Peer-to-peer technology tuition

When it comes to technology, young people learn best from one another. Our conversations with children confirmed that the majority had accumulated their repertoire of skills from their family or friends, and only rarely from ICT classes. Children are already exchanging knowledge in this way every day; school leaders should start to recognize that this expertise is at their disposal. Through encouraging peer-to-peer technology tuition schools could reinforce and encourage a style of learning that already takes place widely beyond school. This would have the additional benefit of developing collaborative skills which are often under-emphasized in the current assessment system.

Digitally literate teachers

We have argued that teachers are not trained to use new technologies adequately and this has a profoundly negative impact on their confidence. If digital media in schools is to move beyond the ICT suite and become truly embedded across the curriculum then all teachers need to feel empowered to use it creatively. School leaders need to build up support and professional development to ensure that all staff feels empowered to use the technologies that resonate with their students. Teachers need to be familiar with sites such as BBC Jam, MySpace and Bebo so that they can find new and engaging ways to work with their students. By extending their use of email towards an informal dialogue with their students about ongoing learning teachers can open up new channels of communication.

Cool tools monitor

People use digital tools daily in their personal and working lives to powerful effect, and children are often at the cutting edge of finding or even creating these tools. Schools need to draw on this experience to identify all the digital tools which can help them to teach creatively. Nominating a student to keep track of these programs or websites would be an easy and effective mechanism of doing so. A cool tools monitor could explore the potential of Flickr for either learning or for building up a tangible school identity, use Del.icio.us to help students manage their knowledge and build on the research of their peers, or blogging for pupil voice. These pupils would aim to bridge the gap between how children are working and learning in their own free time and how they might do so at school.

Del.icio.us for schools

One of the most consistent concerns expressed by the young people we spoke to relates to the unmanageable scale of the web. They found it difficult to priorities their search results or judge the reliability of their sources. As a result they were dependent on a limited number of specialized sites although many were aware they were not exploring the full range of sources available. Building on the idea of a 'cool tools monitor', Del.icio.us could be used by individual schools or by a whole network to create a shared database of useful sources. Acting very much like the school library has done for previous generations, students and teachers could build up this resource and tag each entry with relevant and useful key words, creating a reliable bank of knowledge for all to use.

A class wiki

Collaborating online has become second nature for young people playing multiplayer online games, but we found that this willingness to work together rarely extended to schoolwork where notions of 'cheating' and an emphasis on individual achievement still dominate.

Schools have an important role to play in ensuring that digital collaboration is transferable to the offline world. Almost all children use Wikipedia, but schools have been slow to react to the collaborative potential of this software. Collaborative projects, dependent on students contributing to, editing and reflecting on each other's work, could be integrated across the curriculum from Art to Science. This type of learning experience would prepare young people for the workplace where such skills will be highly valued.