



Schooling the Digital Generation: Popular Culture, New Media and the Future of Education

It is now more than a quarter of a century since the first microcomputers began arriving in British schools. I can personally recall the appearance of one such large black metal box – a Research Machines 380Z – in the North London comprehensive school where I was working in the late 1970s; and I can also recall very well the computer programme that was demonstrated to the English Department – a simple but genuinely thought – provoking package called *Developing Tray*, a kind of ‘hangman’ game in which a poem gradually emerged like a photographic image in a developing tray.¹ I can also recall, perhaps a couple of years later, being involved in a research project called ‘Telesoftware’ run from Brighton Polytechnic, where educational software was (amazingly to us at the time) sent over the telephone line and recorded onto little cassette tapes. Actually, very few of the other teachers were interested in the software that was being delivered; but the students in my CSE Media Studies class were quick to commandeer the equipment to make animated title and credit sequences for their scratch-edited video productions.

Around the same time, the American technology guru Seymour Papert was telling us that **computers would fundamentally transform education** and ultimately **make the school itself redundant**. ‘*Computers*’, he wrote in a book published in 1980, ‘*will gradually return to the individual the power to determine the patterns of education*. Education will become more of a ‘private act’.² And four years later, he told readers even more bluntly, ‘*There wont be schools in the future. The computer will blow up the school*.³ He was not alone. Steve Jobs, the founder of Apple Computers, then pitching relentlessly to capture the education market in the US, was another passionate advocate of the revolutionary potential of educational computing; and he was later joined by an enthusiastic cohort of visionary marketers, such as Bill Gates of Microsoft, who were keen to use schools as a springboard into the much more valuable home market. Indeed, ten years earlier, in 1970, the radical theorist Ivan Illich was creating a vision of a ‘deschooled society’, in which computers would permit the creation of informal, ‘convivial’ networks of learners, and schools and teachers would simply wither away.⁴

Such predictions about the **transformative potential of technology** have a very long history, not just in education; and in retrospect, it is easy to show that they **have largely failed to come true**. The wholesale revolution Papert and others were predicting patently has not taken place: for better or worse, the school as an institution is still very much with us, and most of the teaching and learning that happens there has remained completely untouched



© <http://www.childrenyouthandmediacentre.co.uk/events.asp? Archived=yes&TableName=Overview&RowID=7&EventsID=18>

by the influence of technology. And yet, over the same period, electronic technology has become an increasingly significant dimension of most young people’s lives. Digital media – the internet, mobile phones, computer games, interactive television – are now an indispensable aspect of children’s and young people’s leisure-time experiences. Young people’s relationship with digital technology is now no longer primarily formed in the context of the school – as it was during the 1980s, and even into the 1990s – but in the domain of popular culture.

This raises the fundamental question that I want to address in this lecture. **How should schools be responding to the role of digital media in young people’s lives?** Should they simply ignore them – as they largely appear to do at the present time? Should they enlist these media for the purpose of delivering the established curriculum? Or **can they find ways of engaging with them more critically and creatively?**

Why no technological revolution?

‘I believe that the motion picture is destined to revolutionize our educational system, and that in a few years it will supplant largely, if not entirely, the use of textbooks. The education of the future will be conducted through the medium of the motion picture, a visualized education, where it should be possible to obtain one hundred percent efficiency.’⁵ Thus spoke the American

Schooling the Digital Generation: Popular Culture, New Media and the Future of Education

inventor Thomas Edison in 1922, extolling in grandiose but strangely familiar terms the educational potential of the new media technology of his time.

The American educational historian Larry Cuban has written a valuable history of these visions of technological utopia, and of the ways in which they have largely failed to materialise.⁶ Edison was by no means the only advocate of the revolutionary potential of the cinema; and, at around the same time, many similar claims were being made about the medium of radio. Thirty years on, the same kind of rhetoric was arising around the new medium of television – and, as we entered the 1960s, hopes were again fixed on a new generation of ‘teaching machines’ in the form of programmed learning laboratories. Cuban’s history traces how the **same kinds of educational claims recurred with each new medium**; and how, in each case, **those claims were largely refuted by subsequent developments**. Educational reformers and technology marketers (often singing from the same hymn sheet) repeatedly claimed that new media would bring fresh new forms of learning into the classroom, making old media such as books, and in many cases also teachers, redundant. And as Cuban shows, the large majority of teachers ignored these apparently revolutionary devices: after extensive investment and (in some cases) a period of initial fascination, the projectors and the television monitors were generally consigned to the classroom cupboard or left to gather dust.

Is there any reason to believe that the situation with regard to contemporary information and communication technologies will be any different? The debate about ICTs in education has consistently been dominated by the technology boosters – as has much of the research. But in recent years, some more critical research has begun to emerge that paints a rather different picture. Larry Cuban’s own study, pithily entitled *Oversold and Underused: Computers in the Classroom*⁷ shows how this technology has remained marginal to the practice of most teachers – even enthusiastic and competent teachers in extremely well-equipped, affluent schools such as (in his research) those of Silicon Valley, California, itself. Several other studies in the US and the UK are now beginning to tell a similar story⁸: they show that most teachers remain sceptical about the educational benefits of computer technology, and that **investment in technology does not necessarily result in new or creative forms of learning**, or even in improvements in test results. In the area of literacy, for example, a definitive recent review conducted at the Institute of Education concluded that there was no evidence that non-ICT methods of teaching and non-ICT resources were inferior to the use of ICT; and it urged policy-makers to refrain from any further investment in the area until more persuasive findings were available⁹. Likewise, a recent

report for the OECD found that the level of day-to-day use of computers in schools was ‘disappointing’, with only a minority of teachers using even standard Computer applications¹⁰; while a recent Ofsted report found that while most teachers were keen to use ICT for routine administration and management, and for preparing teaching materials very few were using it to support students’ learning¹¹. Other research has found that the **use of technology in schools can accentuate**, rather than help to overcome, **existing inequalities** in access **based on gender and social class**¹².

Of course, this is not to say that some teachers have not taken up digital technology, and indeed used it in extremely exciting ways. There are well-documented examples of this, not just in the more predictable areas such as Science, Maths or Design and Technology, but also in areas such as Music, English and Media Studies. Yet even here, evidence of the value of such approaches in terms of students’ learning as compared with more traditional ones remains to be established; and there is certainly a tendency for some authors to be seduced by the superficial ‘glitziness’ of technology, to the point where they ignore the superficiality and the poor quality of much of what students are doing with computers¹³. Even some technology enthusiasts have started to bemoan the sorry state of ICT use in schools – although this does not seem to prevent them from continuing to reassert the claim that the revolution is just around the corner¹⁴.

There are many possible explanations for this situation. Part of the problem clearly lies in the way investment has been allocated: the **bulk of the funding has been spent on hardware, significantly less on software and even less on training teachers**. There are undoubtedly some very valuable software tools available, but truly high-quality educational packages remain in short supply, and there are few genuinely independent evaluations of the material available: not least for economic and technological reasons, the education market remains dominated by ‘drill-and-skill’ packages which are very far from the creative, student-centred software envisaged by





Schooling the Digital Generation: Popular Culture, New Media and the Future of Education

the ICT pioneers. The technology itself has also often failed to deliver: incompatible formats, equipment crashes, poorly-written software, the need to constantly purchase the latest upgrades – these are not merely temporary technical difficulties, but phenomena that are endemic to an industry whose ability to generate profit is fundamentally premised on planned obsolescence. Furthermore, the rapidly changing nature of the technology has resulted in some rushed and ill-advised decisions on the part of policy-makers keen not to be 'left behind' by what appear to be the latest educational advances.

Given the limited nature of most ICT training, teachers themselves may have good reason to feel incompetent, or at least lacking in confidence, when it comes to integrating technology into the classroom. Furthermore, as Cuban and others point out, the basic 'grammar' of schooling – with its subject-based curriculum, rigid timetables and assessment regimes – has always been bound to militate against more innovative techniques. Even so, advocates of technology have generally been far too ready to blame teachers, arguing that they are simply too old-fashioned or lazy to adapt, or alternatively too threatened by such an apparently fundamental challenge to their authority. Larry Cuban's research recognises that teachers have been inclined to resist the implementation of technology; but he argues that this has been characteristic of a whole range of attempts at educational reform that go well beyond technology¹⁵. The problem, he argues, is not that teachers are hopelessly inflexible, but that the large majority of educational reforms – including those that are driven by technology – are implemented without the active involvement of teachers themselves. **Lasting educational reform**, he suggests, **must involve teachers as leading agents**, not simply as consumers or as deliverers of plans derived elsewhere. To say the least, this is a lesson that most educational policy-makers have failed to heed.

In the face of this gap between rhetoric and reality, it is worth asking why the drive to insert ICT in education has continued to accelerate. In the UK, Neil Selwyn has conducted some very incisive analyses of the modernising rhetoric of educational policy-makers and marketers in this field. On the side of government, he suggests, there has been a largely uncritical acceptance of nebulous rhetorics of the 'information society'¹⁶. For example, it seems to be accepted as an incontrovertible fact that the majority of employers now require workers with high levels of technological skill despite the fact that employers, even within the technology industries, say that they are more interested in much broader personal and social qualities¹⁷. Much of **this discourse** is also **characterised** by a **form of technological determinism** – the notion that digital technology will automatically produce certain kinds of effects (for



© <http://www.childrenyouthandmediacentre.co.uk/theme.asp?ThemeType=Media%20Education&TableName=Overview&RowID=5>

example, in relation to 'learning styles' or particular forms of cognition) irrespective of the social contexts in which it is used, or indeed the social actors who use it. Taken together, these arguments lead to a functionalist, technocratic approach that offers a 'technological fix' as the single magical solution to the alleged problems of public education.

Yet the apparently unstoppable advance of ICT in education has also been driven by commercial industry and by the government's sometimes highly interventionist efforts to support it¹⁸. To state the obvious, Computers are very big business. Amid a volatile and rapidly changing economy, education has provided a relatively stable market to corporations eager to sustain their profit margins; and it has also been widely seen as a springboard into the lucrative domestic market. As schools have taken control of their budgets, and as education spending has moved to a free-market model without the kind of mediation formerly provided by local education authorities, it may be that teachers have become more susceptible to the appeals of educational hucksters and profiteers. Analyses of the advertising and promotion of educational ICTs have pointed to the mystical and utopian rhetoric that is often employed, and to the ways in which teachers are often marginalised or symbolically 'deskilled'¹⁹. Meanwhile, computers are sold to parents on the grounds that they will enable their children to 'get ahead' in the educational race: here again, technology advertising preys upon adults' anxieties about their own incompetence and their fear of failing to 'catch up' with the younger generation²⁰.

At the same time, what used to be called the 'information superhighway' has itself become increasingly

Schooling the Digital Generation: Popular Culture, New Media and the Future of Education

commercialised – albeit often in ways that are invisible to many of its users. Bettina Fabos has recently written an important study about the commercialisation of the internet, arguing that schools reliance on commercial search engines represents another (often inadequately recognised) commercial intrusion into the classroom²¹. This, she argues, is leading to the **marginalisation of public and non-profit sites**, which are becoming **increasingly difficult to find** amid the welter of advertising and commercially-sponsored content. In this respect too, the history of education's relationship with the Internet replicates that of older media such as film and television, which also became steadily commercialised. Fabos points to some interesting attempts on the part of expert teachers to promote students' critical awareness of internet content; but she also shows that these have been relatively ineffective. The internet is now essentially an **unregulated commercial medium**, a medium for selling; and while this does not in itself necessarily undermine its educational value, it does mean that it can no longer be seen merely as a neutral conduit for information.



So is the story of ICT in education simply that of another failed technological revolution? In many respects, computers have not delivered on the promises that have been made on their behalf; although the hopes and expectations raised by their advocates have, for the most part, been quite absurdly inflated in the first place. Twenty five years on, there is little evidence that the majority of teachers are willing or able to integrate this technology into their teaching to any significant degree; and there is little reason to believe that the digital educational utopia will be arriving anytime soon.

Yet in questioning these claims, it is not my intention simply to reinforce the arguments of those who would seek to abandon technology in favour of a return to 'basics' – whatever they may be. Some critics of technology in education are inclined to fall back on claims about the 'authentic' and 'natural' ways of learning

which have supposedly been corrupted by technology; and they also rely on assertions about the 'dehumanising' effects of particular media that are, to say the least, highly contentious²². A great deal of learning involves technology of one form or another (if we grant that the printing press or even the pen are forms of technology); and a great deal of learning is inevitably mediated (again, if we grant that the book – or indeed the curriculum itself – is a medium, a means of representing the world, just like television or the Internet). We cannot simply abandon media and technology in education and return to a simpler, more natural time.

Ultimately, one of the major problems with the debate about technology and education – and one of the symptoms of its immaturity – is that it has been far too readily polarised as a debate between the **enthusiasts and the resisters**. Those who question or challenge the uses of ICT in education are all too easily condemned as prehistoric 'technophobes' or as 'Luddites', irrationally resisting 'progress'²³; while those who profess the benefits of technology are perhaps too easily stereotyped as naive and unrealistic in their aspirations. In the process, fundamental questions about what teachers and students might want to use technology for, and about what we need to know about technology, tend to be marginalised.

Digital childhoods?

If schools have remained relatively unaffected by the advent of digital technology, the same cannot be said of children's lives outside school. On the contrary, contemporary childhoods are now permeated, even in some respects defined, by the modern media – by television, video, computer games, the internet, mobile phones and popular music, and by the enormous range of media-related commodities that make up contemporary consumer culture²⁴. In fact, this has long been the case. As early as the 1960s, it was apparent that children were spending more time watching television than they were spending in school. And while children's television viewing has in fact slightly declined in recent years with the advent of other screen-based media, the overall picture is clear: **children spend more time with media of various kinds than they do on any other activity apart from sleeping**.

Digital technology has produced some significant changes in children's media experiences. It has led to a burgeoning proliferation of media channels and outlets, and to a considerable extension in access to media. Much of this technology is specifically targeted at children, and many of the new cultural forms that have emerged (such as computer games) are at least primarily identified with the young. The take-up of satellite and cable television, video, digital cameras and home computers has been



Schooling the Digital Generation: Popular Culture, New Media and the Future of Education

much higher in households with children. Technology is also being used in more individualised ways. Thus, a majority of children in the UK now have televisions in their bedrooms, and a significant proportion have VCRs; while nearly three quarters of them have mobile telephones and personal computers for their own use. These tendencies towards individualisation are encouraged by the general democratisation of relationships within the family; although collective uses of media – ‘family viewing’ – are far from disappearing²⁵.

In this context, these technologies are by no means simply purveyors of ‘information’: on the contrary, they carry images, narratives and fantasies that work on the imagination as much as on the intellect. What used to be called ‘information technology’ is now converging with other technologies of representation – particularly visual media such as film and television – that schools have largely tended to ignore. Furthermore, much of this technology is ‘interactive’, at least in the sense that it requires an ongoing input on the part of the user. Computer games and the internet, for example, are sometimes referred to as ‘pull’ media, as distinct from older media such as television that ‘push’ content at the user. However, as the media converge computer games link to television, as television links to the internet, as all of them link to the mobile phone – the user is increasingly having to select and navigate their way through an ever-broadening range of options. Meanwhile, the boundaries between ‘mass’ communication and interpersonal communication are increasingly breaking down. Many of these new media allow children hitherto unprecedented opportunities to communicate with each other, and to become creative producers of media content in their own right.

As with the dissemination of digital technology in education, it is important to recognise that these developments have largely been propelled by commercial interests. The **deregulation** and **privatisation** of the media, the **economic integration** of the media industries, and the advance of global cross-media empires have led to the marginalisation of traditional ‘public service’

requirements. The restless drive to maximise profit has resulted in **children being targeted as consumers** at an ever-younger age; and children’s leisure-time activities in general are becoming steadily more commercialised. Even so, it would be melodramatic to suggest that children are merely passive victims of the evil manipulation of the marketers: they are a volatile market, which cannot easily be known or controlled. And while the material available to children may not have increased in quality, or even in diversity, it has certainly increased in terms of quantity.

Much of the media that is now available to children – and many of the ways in which they use media – have become more and more inaccessible to the majority of adults. The seemingly infinite worlds of contemporary computer games, the specialised language of SMS ‘texting’ and Instant Messaging, the arcane complexities of children crazes like Pokemon and Yugioh, the wild pace of music videos and rap music – these are ‘postmodern’ media forms that seem almost deliberately designed to exclude adults. Yet children are also increasingly gaining access to material that was hitherto largely confined to adults – most obviously to ‘sex and violence’ (both of which are often very loosely defined). Even material produced specifically for a child audience is characterised by a degree of subversiveness and sensuality – and in some cases, by a frank discussion of topics that were previously considered taboo – that is often shocking and incomprehensible for some of the adults who encounter it.

For some, this has led to a growing **anxiety about control**. When compared with older technologies such as the cinema or broadcast television, media such as video and digital TV significantly undermine the potential for centralised control by national governments. With digital technology, it is now possible, not only for material to be easily copied and circulated, but also for it to be sent across national boundaries on the telephone line. Via the internet, children can communicate much more easily with each other and with adults, without even having to identify themselves as children; while the use of mobile devices enables children to communicate independently, without the knowledge or mediation of parents. And, of course, the privacy and anonymity afforded by the internet particularly lands itself to the easy dissemination and sale of pornography. The situation has led to growing calls for stricter regulation and censorship; and to the search for a ‘technological fix’ – for example in the form of filtering software that will prevent children from gaining access to material that is deemed to be undesirable. Yet evidence of the effectiveness of such devices – not least in schools – is decidedly limited²⁶.

These developments have quite ambiguous implications for our conceptions of childhood. Both in the academy and in the media industries, it is often asserted that children are ‘getting older younger’, or at least that



Schooling the Digital Generation: Popular Culture, New Media and the Future of Education

childhood now ends at a much earlier point than it did in previous decades. Some have argued that the modern media are effectively destroying childhood or at least blurring the boundaries between childhood, youth and adulthood – and that traditional moral values need to be reasserted²⁷. Such arguments often rely on a conservative view of children as highly vulnerable and in need of protection from corrupting influences. On the other hand, however, it is also argued that there is a growing generation gap, which has been partly produced by the proliferation of media technology. Unlike those who bemoan the media's destruction of childhood innocence, advocates of the new 'digital generation' are generally much more optimistic. New technology is seen here as a force of liberation for children – a means for them to reach past the constraining influence of their elders, and to create new, autonomous forms of communication and community. Far from corrupting children, technology is seen to be creating a generation that is more open, more democratic, more creative and innovative than their parents' generation²⁸. Children are often seen here to have an innate, spontaneous competence in their dealings with technology – a natural affinity that Seymour Papert even refers to as a 'love affair' with computers²⁹.

It is hard to deny that young people now expect a degree of choice and control, and indeed a degree of 'interactivity', in their use of media that was largely unavailable to older generations. But there are also good reasons to be wary of the rhetoric of the 'digital generations'³⁰. Like many of the arguments about ICT in education, they are characterised by a form of **technological determinism** – by the notion that technology will bring about social or psychological changes irrespective of how, and by whom, it is used. Technology is effectively reified, or regarded as an **autonomous force** that is somehow **independent of human society**, and acts upon it from outside. This view connects with this familiar rhetoric of the 'information society' (or the 'knowledge economy'), which similarly appears to attribute a determining power to some disembodied force ('information')³¹. This analysis typically neglects the **fundamental continuities** and **interdependencies between new and 'old' media** (such as television or print) – continuities that exist at the level of form and content, as well as in terms of economics.

The notion of the '**digital generation**' also essentialises young people, and can lead us to ignore inequalities and differences between them. The most troubling aspect of this is the continuing 'digital divide' – the gap between the technology rich and technology poor, both within and between societies. Most enthusiasts for technology appear to believe that this is a temporary phenomenon, and that the technology poor will eventually catch up as the equipment falls in price. However, this is to assume



© <http://www.childrenyouthandmediacentre.co.uk/theme.asp?ThemeType=Educational%20Media&TableName=Overview&RowID=5>

that the 'early adopters' of such technology will stay where they are; and, more broadly, that the **market** is a neutral **mechanism**, that functions simply by giving individuals what they need. While some have looked to the **school** as a **key institution** in terms of **counteracting** these inequalities in access to technology, there is evidence that it may actually **widen** them. Young people who already enjoy a high degree of access outside school are more likely to engage in technology-based activities, and to get the most from them, than those who do not – unless, that is, specific efforts are made to address the needs of those who perceive themselves to be less competent in the first place³².

Furthermore, this generational rhetoric also leads us to ignore what one can only call the **banality** of much new media use. Recent studies³³ suggest that most children's everyday uses of new technology are characterised not by spectacular manifestations of innovation and creativity, but by relatively mundane forms of communication and Information retrieval. Technology offers children different ways of communicating with each other, or pursuing specialist hobbies and interests, as compared with offline methods; but the differences can easily be overstated. Furthermore, many young people – like many adults – also find technology frustrating; and many, for various reasons, positively refuse to engage with it³⁴. The technologically-empowered 'cyberkids' of the popular imagination may indeed exist; but even if they do, they are in a minority, and they are untypical of young people in general. One could even argue that for most young people, technology per se is a relatively marginal concern. Very few are interested in technology in its own right, or



Schooling the Digital Generation: Popular Culture, New Media and the Future of Education

believe it has magical powers: they are simply concerned about what they can use it for.

Yet despite the limitations of these arguments, it remains the case that most young people's experiences with technology are now taking place outside school, in the context of what has been termed techno-popular culture³⁵. And the contrast between what happens there and what happens in the classroom is often very striking. For example, children's use of the internet outside school is likely to involve a wide range of activities. They are **chatting in chat-rooms** and exchanging instant messages with friends. They are seeking out information about hobbies, sports and leisure interests. They are playing games, sometimes with others in distant parts of the world. They are shopping – or at least window-shopping and downloading pop music and Hollywood movies. And, perhaps above all, they are visiting sites related to their other media enthusiasms – soap operas, computer games, reality TV shows and pop celebrities. What they are not doing to any significant degree is engaging in the purposeful pursuit of education.

Meanwhile, what are young people doing on the internet in school? In most cases, very little. Few schools offer extended or unrestricted access for students; and many employ filtering systems that turn web surfing into an obstacle course. Most formal ICT classes cover just the rudiments of information retrieval, alongside word-processing and simple spreadsheets. Some teachers offer web-based homework assignments, but these are often restricted to visiting prescribed sites. Of course, there are some good reasons for these limitations. But it is not surprising that many children are bored and frustrated by their use of ICT in schools³⁶. Compared with the complex multi-media experiences some children have outside school, much classroom work is bound to appear unexciting. Children who use the Internet at home are likely to be developing a strong sense of their own autonomy and authority as users of technology, yet this is precisely what is so often denied to them in school.

This new digital divide' could be seen as symptomatic of a much broader phenomenon a widening gulf between

children's worlds outside school and the emphases of many education systems. While the social and cultural experiences of children have been dramatically transformed over the past fifty years, schools have signally failed to keep pace with change. The classrooms of today would be easily recognisable to the pioneers of public education of the mid-nineteenth century: the ways in which teaching and learning are organised, the kinds of skills and knowledge that are valued in assessment, and even a good deal of the actual curriculum content, have changed only superficially since that time. Indeed, some have argued that schooling is now heading determinedly backwards, retreating from the uncertainty of contemporary social change towards the apparently comforting stability of a new 'educational fundamentalism', in which traditional relationships of authority between adults and children can be restored³⁷.

This is not to posit an absolute opposition between 'school culture' and 'children's culture'. The school is inevitably a site for negotiation (and often for struggle) between competing conceptions of knowledge and cultural value. Nevertheless there is now an extraordinary contrast between the high levels of activity and enthusiasm that characterise children's consumer cultures and the passivity that increasingly suffuses their schooling. Of course, teachers have perennially complained about children's weakening 'attention span'; although in fact the levels of intense concentration and energy that characterise children's playground engagements with phenomena like Pokemon are quite at odds with the deadening influence of mechanical testing that currently prevails in many classrooms³⁸. Children are now immersed in a consumer culture that positions them as active and autonomous; yet in school, a great deal of their learning in passive and teacher-directed. Indeed, as Jane Kenway and Elizabeth Bullen point out, the 'knowledge politics' of children's consumer culture often explicitly oppose those of formal schooling, presenting teachers as dull and earnest, worthy not of emulation but of well-justified rebellion and rejection³⁹. Like a Rabelaisian 'carnival', children's media culture has increasingly become an arena in which authoritarian values of seriousness and conformity are subverted and undermined. In this context, it is hardly surprising if children come to perceive schooling as marginal to their identities and concerns – or at best, as a kind of functional chore.

Making connections?

Historically, schools have largely sought to ignore young people's experiences of popular media – as if pretending they did not exist would somehow make them go away. Some have seen the school as the last bastion of literate civilisation, urging it to take a final stand against the ravages of a depraved popular culture⁴⁰. On the other



Schooling the Digital Generation: Popular Culture, New Media and the Future of Education

hand, many educators have long argued that **schools need to connect (or re-connect) with children's out-of-school experiences – experiences in which electronic media of various kinds now play a pre-eminent role.** Yet how is such a connection to be forged?

On one level, schools have a great deal to learn from children's popular culture. Young people's everyday uses of computer games or the internet involve a whole range of **informal learning processes**, in which there is often a high democratic relationship between 'teachers' and 'learners'. Children learn to use these media largely through **trial and error** – through **exploration, experimentation and play**; and collaboration with others – both in face-to-face and virtual forms – is an essential element of the process. Playing a computer game, for example, involves an extensive series of cognitive activities: **remembering, hypothesis testing, predicting and strategic planning.**



While game players are often deeply immersed in the virtual world of the game, dialogue and exchange with others is crucial. And **game playing** is also a **'multi-literate'** activity: it often involves interpreting complex three-dimensional visual environments, reading both on-screen and off-screen texts (such as games magazines and websites) and processing auditory information. In the world of computer games, success ultimately derives from the disciplined and committed acquisition of skills and knowledge.

Likewise, online chat and instant messaging require very specific skills in **language and interpersonal communication**⁴¹. Young people have to learn to 'read' subtle nuances, often on the basis of minimal cues. They have to learn the rules and etiquette of online communication, and to shift quickly between genres or language registers. Provided they are sensible about divulging personal information, chat rooms provide young people with a safe arena for rehearsing and exploring aspects of identity and personal relationships that may not be available elsewhere. Again, much of this learning is carried out without explicit teaching: it

involves active exploration, 'learning by doing', apprenticeship rather than direct instruction. Above all, it is profoundly social: it is not something that can be neatly divided into a set of psychological types (or 'multiple intelligences'), but a matter of participation in 'communities of practice'.

Nevertheless, these arguments can be overstated. The attempt to vindicate the educational value of popular culture has often tipped over into uncritical celebration. James Gee's recent book *What Video Games Have To Teach Us About Learning and Literacy*⁴² is a symptomatic case in point. Gee argues, quite correctly, that computer games involve a wide range of learning processes; and from his account of his own experiences of game-playing, he derives a cogent set of learning principles that provides some important challenges for educators. However, he is so keen to use computer games as a stick with which to beat the formal education system that he ignores many of the limitations of gaming, and indeed much of the value and necessity of formal schooling.

He establishes a hierarchy of value, whereby 'good' games are those that follow his principles, while games that do not are barely considered. In fact, academic work on game players suggests that play frequently involves a considerable amount of pointless frustration and wasted time⁴³; and research on online gaming shows that there is often a great deal of 'formality' – and indeed a considerable amount of power-playing – in such allegedly supportive communities⁴⁴.

Like many 'reader-oriented' accounts of popular culture, this kind of analysis plays down the ways in which media texts, and the producers of media, structure the experiences of their users. It celebrates the 'activity' of the reader (or in this case, the player), but it tends to ignore the ways in which activity is intimately tied up with the act of consumption. Furthermore, it often tends to conflate activity with agency – that is, with power and control. Indeed, it could be argued that a key imperative in the modern media is precisely to create the **illusion of control**, the sense that we the audience are really in charge – a tendency of which the supremely 'interactive' phenomenon of so-called reality TV offers many examples. Games may well involve 'active learning', but it would be simplistic to assume that activity in itself makes them a valid model for learning in general. Likewise, an easy opposition between 'formal' and 'informal' learning tends to obfuscate the issue – not least because schools may provide many more opportunities for 'informal learning' than critics like Gee are prepared to allow⁴⁵. Furthermore, it is not clear where this analysis leads in terms of educational practice. Some advocates of games in education seem to imply that games hold the key to the problem of engaging disaffected boys. The use of games, it is argued, will revitalise such students' interest in areas of the



Schooling the Digital Generation: Popular Culture, New Media and the Future of Education

curriculum that are rapidly losing their popularity⁴⁶, such as maths and science. But this is to ignore the considerable logistical difficulties – in terms of time, resources and training – that the widespread use of games would entail; and the fact that many young people (perhaps particularly girls) might well be excluded by such initiatives. In fact, games are a very effective way of providing certain kinds of learning experiences, such as simulations; but simulations are bound to remain superficial if they are not also informed by an understanding of the broader principles at stake, and by a knowledge of a certain amount of content – and these are things that games are much less effective in providing. Indeed, many of the arguments Gee makes for computer games might equally well be made about drama – or, for that matter, about football. As this implies, we need to make much clearer distinctions here in terms of the specific educational potentialities (or ‘affordances’) of different media, rather than falling back on generalised claims about their overall cognitive or motivational benefits.

These arguments about the educational value of computer games reflect a broader attempt to co-opt aspects of ‘entertainment’ for the purposes of education. Several years ago, New Labour peer Lord Puttnam argued that digital technology should be used to transform Britain into the ‘Hollywood of Education’⁴⁷. Over the past few years, the media, ICT and publishing industries have become increasingly involved in the education market, both through the provision of multi-media resources and (less visibly) in the privatised management of schools. There is an increasingly competitive market for broadly ‘educational’ toys, software, books and magazines targeted both at the domestic market and at schools; and we are now seeing the emergence of a significant new market in interactive e-learning, led by well-established television companies. This is a market that has been primed by very large amounts of government money, through initiatives like the National Grid for Learning, the Digital Curriculum and the E-learning Credits scheme. Yet as our research on home learning has shown⁴⁸, what is

available in the education marketplace is determined, not only by educational imperatives, but also by the economic logic of the global media industries.

In homes, but also in schools, this has led to the emergence of ‘**edutainment**’, a hybrid mix of education and entertainment that relies heavily on **visual material**, on narrative or game-like formats, and on more informal, less didactic styles of address. At least on the face of it, this material embodies a form of ‘popular’ pedagogic discourse that is much less authoritarian – and much more ‘interactive’ – than that of formal schooling. The sales pitches for such material rely on an obsessive insistence that learning is inevitably ‘fun’. These new forms of edutainment are therefore offered both as an acceptable leisure-time pursuit, and as a glamorous alternative to the apparent tedium of much school work. Children, it is typically argued, will gain a competitive edge on their peers – and yet they will not even know that they are learning.

Of course, the combination of education and entertainment is by no means a novel development: it has a long history, and some considerable successes have been achieved, for example in using television in the teaching of reading. Yet what often emerges from these initiatives is a form of edutainment that young people find distinctly lacking in appeal. When compared with the majority of computer games and entertainment websites, most educational materials on the web and on CD-ROM are distinctly limited. They are visually impoverished, lacking in interactivity and thin on engaging content. This is partly a matter of funding: when one compares the production budget of an average Playstation game with that of an educational game, it is not hard to understand why educational games are so lacking in engagement. However, it also reflects a failure of imagination – even a failure to take the pleasures of entertainment seriously. For example, our research on educational games has found that the learning content in such games is often detached from the game-play: the game-play generally functions merely as a kind of reward for getting the test questions right, or as a window dressing for something that is implicitly defined as fundamentally tedious⁴⁹. In other words, the game serves as a kind of sugar for the pill; and in our research, we found that children quickly developed the ability to take the sugar while leaving the pill behind.

Again, part of the problem here is with the rather simplistic dichotomy between ‘education’ and ‘entertainment’. All entertainment is educational, in the sense that somebody is bound to learn something from it; and all education has to be entertaining, in the literal sense of having to engage the learner. As Marshall McLuhan once said, ‘*anyone who tries to make a distinction between education and entertainment doesn’t know the first thing about either of them*’. Yet if we are



Schooling the Digital Generation: Popular Culture, New Media and the Future of Education



seeking to re-engage disaffected learners, the answer is clearly not to adorn teaching materials with computerised bells and whistles – to ‘jazz up’ the curriculum with a superficial gloss of kid friendly digital culture. Nor is it to adopt digital technology in the service of narrowly instrumental forms of learning, in an attempt to make them more palatable. Dressing up SATs tests or multiplication tables with a veneer of ‘fun’ is a strategy that most children will quickly see through. What is required is a much more thoroughgoing, and more critical, engagement with children’s digital cultures.

Redefining digital literacy

Where they have engaged more directly with popular culture, many educators have seen their role as an essentially defensive one. They have sought to protect children from what they see as the harmful influence of the media, or to wean them on to what they perceive to be more wholesome pursuits. This approach is often driven by the kind of superficial ‘moral panics’ about children and media that routinely make the headlines. We need to teach children about media, so we are told, in order that they can be **saved** from violence or premature sexualisation or eating disorders – or indeed any one of the other social ills for which the media are regularly deemed to be responsible. This approach is still dominant



in some parts of the world – including the United States; but in Britain and in many other countries we have developed a much broader and less protectionist approach, that has been informing practice in many schools for several decades⁵⁰.

Interestingly, the need for media literacy has recently come to be recognised by policy-makers. As we move towards a more market-led, technologically rich media environment, governmental regulation is increasingly focussing on the need to produce ‘informed consumer’. The Government Minister for Culture, Media and Sport, Tessa Jowell, is on record as saying that media literacy is as important for children today as more established subjects like English, maths and science⁵¹; and the new media regulator, Ofcom, has a responsibility under the 2003 Communications Act to ‘**promote media literacy**’ through its publications and research initiatives. For those of us who have worked in the field for many years, this is a welcome – albeit long overdue – development. Personally, I am rather wary about the idea of media education as a kind of alternative to media regulation; and I would prefer if the initiative were more strongly supported by the Department for Education, and not only the Department of Culture, Media and Sport. But Ofcom, at least, is defining media literacy in a broad way, and is playing an important role in supporting a dialogue between the various stakeholders and interest groups.

To some extent, media literacy is something that people acquire in any case through their encounters with the media, and it can obviously be developed in a range of situations, not just schools. But schools do have a central role to play here. Media education, as we define it, is both a **critical** and a **creative** enterprise. It provides young people with the critical tools they need to interpret, to understand and (if necessary) to challenge the media that permeate their lives; and yet it also offers them the **ability** to produce their own media, to become active participants in media culture rather than simply passive consumers. It therefore involves the rigorous analysis of media texts, in terms of the visual and verbal languages they employ and the representations of the world they make available; the **study** of the **companies and institutions** that **produce media**, and how **they seek to reach their target audiences**; as well as the **creative production** of media in a range of genres and formats.

What would this involve in relation to digital media specifically? To be sure, digital literacy would need to begin with some of the ‘basics’. In relation to the internet, for example, children need to learn how to locate and **select material** – how to use **browsers, hyperlinks** and **search engines**, and so on. But to stop there is to confine digital literacy to a form of instrumental or functional literacy. The skills that children need in relation to digital media are not confined to those of information retrieval. As with print, they also need to be able to **evaluate** and



Schooling the Digital Generation: Popular Culture, New Media and the Future of Education



use **information critically** if they are transform it into knowledge. This means asking questions about the **sources of** that information, the **interests** of its producers, and the ways in which **it represents the world**; and understanding how these technological developments are related to broader social and economic changes.

There are three broad conceptual aspects that I would regard as essential components of digital literacy – or indeed of any kind of literacy. These have been most coherently elaborated over the past twenty years by media educators in the UK, and increasingly around the world⁵².

➤ Representation.

Like all media, digital media represent the world, rather than simply reflect it. They offer particular interpretations and selections of reality, which inevitably **embody implicit values** and **ideologies**. Informed users of media need to be able to evaluate the material they encounter, for example by **assessing the motivations of those who created** it and by **comparing** it, including their own direct experience. In the case of information texts, this means addressing **questions** about **reliability, bias** and **accuracy**; and it also necessarily broader questions about **whose voices are heard** and whose viewpoints are represented.

➤ Language.

A truly literate individual is able not only to use language, but also **to understand how it works**. This is partly a matter of understanding 'grammar' of particular forms of communication; but it also involves an awareness of the **broader codes conventions** of particular genres. This means acquiring **analytical** skills, and a meta-language for describing how language functions. Digital literacy must therefore involve a systematic **awareness of how** digital media are **constructed**, and of the unique 'rhetorics' of interactive communication, both in relation to information media (such as parts of the internet) and entertainment (such as computer games).

➤ Production.

Literacy also involves **understanding who is communicating to whom**, and **why**. In the context of digital media, young people need to be aware of the growing importance of commercial influences – particularly as these are often invisible to the user. There is a 'safety' aspect to this: children need to know when they are being targeted by commercial appeals, and how the information they provide can be used by commercial corporations. But digital literacy also involves a broader awareness of the global role of advertising, promotion and sponsorship, and how they influence the nature of the information that is available in the first place. And of course, this awareness should also extend to non-commercial sources and interest groups, who are increasingly using the web as a means of persuasion and influence.

These kinds of critical understandings are a key part of digital literacy. As the Italian author Umberto Eco once wrote about the potential of using television in education: *'if you want to use television to teach somebody, you must first teach them how to use television'*⁵³. Education about the media, he argued, was an indispensable prerequisite for education with or through the media. The same is true of digital media. If we want to use the internet or other digital media to teach, we need to equip students to understand and to critique these media: we cannot use them in a merely functional or instrumental way.

However, media literacy involves 'writing' the media as well as 'reading' them; and here again, digital technology



© <http://www.childrencyouthandmediacentre.co.uk/theme.asp?ThemeType=New%20Media&TableName=Overview&RowID=5>

Schooling the Digital Generation: Popular Culture, New Media and the Future of Education

presents some important new challenges and possibilities. With digital authoring packages, quite young children can easily produce multimedia texts, and even interactive hypermedia, in the form of websites or CD-ROMs, combining written text, visual images, simple animation, audio and video material.

To date, much of this work has focussed on the production of factual 'edutainment'; yet the experience of digital production can also permit more ambitious and creative forms of exploration, as well as enabling students to reflect more systematically on their own experience of popular culture⁵⁴. For example, when it comes to video production, digital technology can make overt and visible some key aspects of the production process that often remain 'locked away' when using analogue technologies. This is particularly apparent at the point of editing, where complex questions about the selection, manipulation and combination of images (and, in the case of video, of sounds) can be addressed in a much more accessible way than was possible using analogue technology.

These tools can enable students to conceptualise the activity of production in much more powerful ways. In the process, the boundaries between critical analysis and practical production – or between 'theory' and 'practice' – are becoming increasingly blurred⁵⁵.

The kind of work I am pointing towards is already well developed in some schools. Among the most interesting locations are the specialist schools for media arts, of which there are now more than twenty. For example, at Parkside Community College in Cambridge and Charles Edward Brooke School in Lambeth (South London) – two schools with very different catchment areas – digital media are being used in innovative ways that precisely build upon students' out-of-school experiences. From a base in the English and Media departments, these schools have begun to integrate the creative and critical use of new media in a whole range of curriculum areas. Students work on cross-curricular production projects in web design or digital video that can involve collaboration and communication with students in other schools and

with the wider community. Crucially, new media are used here simultaneously as an object of study and as a means of learning; and the creative and critical dimensions are strongly integrated⁵⁶.

Such possibilities are also available for younger students. In Hackney, East London, for example, the local authority advisory team is working with primary teachers and children, integrating digital media right across the curriculum. Here again, the emphasis is on production – on children making digital 'texts' using multimedia authoring software, that re-present what they have learned in new ways and for different audiences. In this context, the boundaries between 'arts' and other areas of the curriculum also begin to disappear, as the visual dimensions of science or mathematics become increasingly apparent. Here again, the key issue is how to integrate critical questions about these media with the opportunity to create them⁵⁷.

There is also growing interest in the potential of such work in informal, out-of-school settings. For example, WAC Performing Arts and Media College in North London offers a model of community-based provision using new media. Here, young people are using digital technologies, not just to produce websites, but also in a range of more ambitious forms of multimedia production, including digital video and computer games design. In the context, the web offers a means of distribution – via web streaming of moving image and audio material – and of generating dialogue with other young people, both locally and globally. Here – as in similar projects in several US cities – we can see the emergence of a youth public sphere, in which young people themselves are beginning to take control of the means of production⁵⁸.

Many of the projects in our research centre have involved collaboration with these schools and community-based institutions; and we believe there is a growing body of work here that needs to be more widely disseminated⁵⁹. Even so, significant difficulties and challenges remain. We still need to know a great deal more about what makes for good practice in media teaching – and ultimately about whether media education actually makes any difference. Is it effective, not so much in enabling students to pass exams, but in the sense that it influences what happens outside the classroom, in children's everyday engagements with media? This is a difficult question, and it would be difficult which ever area of the curriculum we were looking at; but it is certainly one that we need to answer.

On one level, then, I am making a case for the much-derided subject of Media Studies. Amid the barrage of ill-informed comment that always accompanies the annual publication of school exam results is the familiar assertion that 'new' subjects like Media Studies are indicative of a general 'dumbing down' of education. Of course, there are many people in the media who are





Schooling the Digital Generation: Popular Culture, New Media and the Future of Education

bitterly opposed to the idea that anybody might take it upon themselves to criticise what they do. In some instances, they even seem frightened by the idea that people might take them too seriously. Such people would not let their criticisms be sullied by any attention to the facts – such as the fact that a much smaller proportion of students receive top grades in Media Studies than in more traditional subjects. In these debates, Media Studies often seems caught between conflicting demands: it is deemed too frivolous to be a real academic subject, yet somehow too academic to be truly vocational⁶⁰. Ironically, this is a very similar kind of resistance to that faced by the new subject of English less than a century ago.

As in any other area of education, there is both good and bad practice in media education; and there is currently an alarming shortage of specialist trained media teachers. But the cinema has been with us for over one hundred years; television for more than fifty and even computer games have been around for more than twenty five years. Serious academic research on the media has a long history, dating back to the 1920s. It seems extraordinary that the school system still largely ignores the dominant forms of culture and communication of the last century, let alone those that are now emerging. Is it really so foolish, or so dangerously radical, to suggest that it is time we took such matters seriously?

Ultimately, however, my argument is much broader than simply a call for media education. The metaphor of literacy – while not without its problems – provides one means of imagining a more coherent, and ambitious, approach. The increasing convergence of contemporary media means that we need to be dressing the skills and competencies – the multiple literacies – that are required by the whole range of contemporary forms of communication. Rather than simply adding **media or digital literacy to the curriculum menu**, or hiving off information and communication technology into a separate subject, we need a much broader **reconceptualisation** of what we mean by literacy in a world dominated by electronic media. This is not by any means to suggest that verbal literacy is no longer relevant, or that books should be discarded. However, it is to imply that the **curriculum can no longer be confined to a narrow conception of literacy that is defined solely in terms of print**. If we are still to have a literacy strategy, then it should surely be addressing the visual, audio-visual and digital literacies of the modern world as well as those that are specific to the medium of print.

Conclusion

The advent of digital technology has presented many new challenges and opportunities for education. Yet the idea that technology in itself would radically transform



education – and even result in the demise of the school – has been shown to be an illusion. Despite massive expenditure on the part of government and intensive promotion by industry, few teachers have made much use of technology in their teaching; and where they have done so, there has been little definitive evidence that it has contributed to raising achievement – let alone to generating more creative or adventurous forms of learning for the majority of young people. If today's technology is not to go the way of other failed educational technologies of the past, it is time we looked beyond the utopian rhetoric and the marketing hype.

In the meanwhile, however, digital media have come to occupy a central role in most young people's lives outside school. Children are engaging with these media in different ways from adults, and they are developing new skills and competencies in the process.

New media appear to offer them the possibility of becoming communicators and cultural producers in their own right: they are being led to demand choice, autonomy and control. Yet here again, we cannot afford to be sentimental about this. The contemporary fantasy of the 'cyberkid' is a stereotype that belies the considerable difficulties and frustrations that children (like adults) often experience in their dealings with new media. Furthermore, children are now being aggressively targeted as consumers: their experiences of new media



Schooling the Digital Generation: Popular Culture, New Media and the Future of Education



are framed and defined by broader social and economic forces that they do not control, or even necessarily understand.

One result of these developments is that we are witnessing a **widening gap between the culture of the school the culture of children's lives outside school**. In their leisure time, children are encouraged to see themselves as active participants, navigating their way independently through complex multi-modal media environments. Yet in school, they are largely expected to function as docile recipients of pedagogic delivery.

By and large, the use of Information and communication technology in school signally fail to engage with the ways in which young people are now relating to information, and with the ways they choose to communicate. The danger here is that the school will become more and more irrelevant to their real interests and concerns. Bridging this gap will require more than superficial attempts to combine education and entertainment, or a celebratory account of the educational potential of new media.

Of course, the school is not about to disappear. This is partly because it serves social (and even economic) functions that are not confined to its role in respect of learning: historically, the school has always operated partly as an agency of child-minding. Nevertheless, in an environment that is increasingly dominated by the proliferation of electronic media and the demands and imperatives of consumer culture, we urgently need to define a much more proactive role for the school as a key public sphere institution. In much the same way as Habermas's eighteenth century public sphere⁶¹, the school should offer a **platform for open communication and critical debate**, and it should mediate the operations both of the state and of the market. Technology can actually facilitate much of that debate, although it will not bring it about of its own accord.

So how should the school respond to the increasing role of digital technology in children's lives? I believe the school could play a part in **equalising access**,

compensating for the inequalities that currently persist in the wider society – although in doing so, we will need to acknowledge that **access is not simply a matter of technology, but also of the competencies that are required to use it**. The school could and should be playing a much more positive role in providing both **critical perspectives on technology** and **creative opportunities** to use it. Media literacy – including digital media literacy – should be seen as a **core curriculum entitlement** for all children, and an indispensable requirement for modern life. Ultimately, this means that we need to stop thinking merely in terms of technology, and start thinking afresh about learning, communication and culture.

NOTES AND REFERENCES:

- 1 This package, originally designed by Bob Moy, is still available via www.devtray.co.uk.
- 2 Seymour Papert *Mindstorms: Children, Computers and Powerful Ideas* (New York: Basic Books, 1980), p. 37
- 3 Papert, *Trying to predict the future*, *Popular Computing*. October 1984, p. 38, quoted in Todd Oppenheimer *The Flickering Mind* (New York: Random House, 1993), p. 19.
- 4 Ivan Illich *Deschooling Society* (Harmondsworth: Penguin, 1971)
- 5 Edison, quoted in Oppenheimer, op. cit., p. 3.
- 6 Larry Cuban *Teachers and Machines* (New York: Teachers College Press, 1986); and see also Carolyn Marvin *When Old Technologies Were New* (Oxford, Oxford University Press, 1988)
- 7 Cuban *Oversold and Underused: Computers in the Classroom*. Cambridge, MA: Harvard University Press, 2001).
- 8 See, for example, Oppenheimer, op. cit.; Karen Ferneding *Questioning Technology: Electronic Technologies and Educational Reform* (New York: Peter Lang, 2003) Joshua Angrist and Victor Lavy 'New evidence an classroom Computers and pupil learning' *Economic Journal* 112: 735–765, 2002; Ros Sutherland et al. 'InterActive Education: Teaching and Learning in the Information Age', final report to ESRC, 2005; Sarah Holloway and Gill Valentine *Cyberkids: Children in the Information Age* (London: Routledge Falmer, 2003); Neil Selwyn 'Why the Computer is not dominating schools: a failure of policy or a failure of practice?' *Cambridge Journal of Education* 29(1): 77–91, 1999.
- 9 For a summary of this study, see http://epi.ioe.ac.uk/EPPIWeb/home.aspx?page/reel/review_groups/english/review_two_abstract.htm.
- 10 For a brief summary, see http://www.oecd.org/document/18/0,2340,en_21571361_27379727_26302546_1_1_1_1,00.html.
- 11 Ofsted *ICT in Schools: The Impact of Government Initiatives. Five Years On* (London: Office for Standards in Education, 2004).
- 12 See Neil Selwyn 'The effect of using a home computer on students' educational use of IT', *Computers and Education* 31: 211–227, 1998; and Holloway and Valentine, op. cit.
- 13 This is a key theme of Oppenheimer's critique, op. cit.
- 14 Not least Seymour Papert in *The Connected Family* (Atlanta, GA: Longstreet, 1986)
- 15 See also David Tyack and Larry Cuban *Tinkering Toward Utopia: A Century of Public School Reform* (Cambridge, MA: Harvard University Press, 1995).



Schooling the Digital Generation: Popular Culture, New Media and the Future of Education

- 16 See Selwyn, op. cit., note 8; and his 'Gilding the grid: the marketing of the National Grid for Learning', *British Journal of Sociology of Education* 20 (1): 55–68.
- 17 Selwyn, op. cit., note 8.
- 18 As in the case of the E-learning Credits scheme – see Margaret Scanlon and David Buckingham 'Debating the digital curriculum: intersections of the public and the private in educational and cultural policy', *London Review of Education* 1(3): 191–205, 2003; and Neil Selwyn Online/offcourse: exploring the political and commercial construction of digital learning, paper presented to the Centre for the Study of Children Youth and Media, Institute of Education, University of London, June 2005.
- 19 See Neil Selwyn 'Learning to love the micro; the discursive construction of 'educational' computing in the UK, 1979–89', *British Journal of Sociology of Education* 23(3): 427–443, 2002; and David Buckingham, Margaret Scanlon and Julian Sefton-Green, 'Selling the Digital Dream: Marketing Educational Technologies to Teachers and Parents', in A. Loveless and V. Ellis (eds.) *ICT, Pedagogy and the Curriculum: Subject to Change* (London: Routledge, 2001).
- 20 See Helen Nixon 'Fun and games are serious business', in J. Sefton-Green (ed.) *Digital Diversions: Youth Culture in the Age of Multimedia* (London: University College London Press, 1998); and Buckingham, Scanlon and Sefton-Green, op. cit.
- 21 Bettina Fabos *Wrong Turn on the Information Superhighway: Education and the Commercialization of the Internet* (New York: Teachers College Press, 2004). See also Clifford Stoll *High-Tech Heretic: Reflections of a Computer Contrarian* (New York: Anchor, 1995).
- 22 For example, Jane Healy *Failure to Connect* (New York: Simon and Schuster, 2000); and C. Cordes and E. Miller (eds.) *Fool's Gold: A Critical Look at Computers and Childhood* (Alliance for Childhood http://www.allianceforchildhood.net/projects/computers/computers_reports_fools_gold_download.htm, 2002). Similar criticisms could be made of Oppenheimer, op. cit., note 3; and Stoll, op. cit.
- 23 Although, as Kevin Robins and Frank Webster suggest, the Luddites have been somewhat misrepresented in this respect: see Robins and Webster *Times of the Technoculture* (London: Routledge, 1999)
- 24 I have written about this at length in my book *After the Death of Childhood: Growing Up in the Age of Electronic Media* (Cambridge: Polity, 2000).
- 25 See Sonia Livingstone and Moira Bovill (eds.) *Children and their Changing Media Environment* (Mahwah, NJ: Lawrence Erlbaum, 2001). For recent figures on young people's access to media, and a review of research, see David Buckingham et al. *The Media Literacy of Children and Young People: A Review of the Academic Research* (London: Ofcom, 2005).
- 26 See T. Lawson and C. Comber 'Censorship, the Internet and schools: a new moral panic?' *The Curriculum Journal* 11(2): 273–285, 2000.
- 27 Notably Neil Postman in *The Disappearance of Childhood* (London: WH. Allen, 1983).
- 28 For example, Don Tapscott *Growing Up Digital: The Rise of the Net Generation* (New York: McGraw Hill 1998); and Jon Katz *Virtuous Reality* (New York: Random House, 1997).
- 29 Papert *The Connected Family* (Atlanta, GA: Longstreet, 1996).
- 30 I discuss these issues in more depth in my chapter 'Is there a digital generation?', in David Buckingham and Rebekah Willett (eds.) *Digital Generations: Children, Young People and New Media* (Mahwah, NJ: Erlbaum, in press).
- 31 For a useful critique of these ideas, see Christopher May *The Information Society: A Sceptical View* (Cambridge: Polity, 2002)
- 32 See Selwyn, op. cit., note 12.
- 33 For example, Sonia Livingstone and Magdalena Bober *UK Children Go Online: Listening to Young People's Experiences* (London: London School of Economics and Political Science, 2005); Keri Facer, John Furlong, Ruth Furlong and Ros Sutherland *Screenplay: Children and Computing in the Home* (London: Routledge Falmer, 2003) and Sarah Holloway and Gill Valentine *Cyberkids: Children in the Information Age* (London: Routledge Falmer, 2003).
- 34 See Keri Facer and Ruth Furlong 'Beyond the myth of the "cyberkid": young people at the margins of the information revolution', *Journal of Youth Studies* 4(4): 451–469, 2001.
- 35 Facer et al., op. cit., note 33.
- 36 Ibid; and Selwyn, op. cit., note 12.
- 37 See Jane Kenway and Elizabeth Bullen *Consuming Children: Education, Entertainment, Advertising* (Buckingham: Open University Press, 2001).
- 38 See David Buckingham and Julian Sefton-Green 'Gotta catch 'ern all: structure, agency and pedagogy in children's media culture', *Media, Culture and Society* 25(3): 379–399, 2003.
- 39 Kenway and Bullen, op. cit.
- 40 For the classic statement of this position, see F. R. Leavis and Denys Thompson *Culture and Environment: The Training of Critical Awareness* (London: Chatto and Windus, 1933); and also Postman, op. cit., note 27.
- 41 See, for example, Vebjorg Tingstad *Children's Chat on the Net: A Study of Social Encounters in Two Norwegian Chat Rooms* (PhD thesis, NTNU Trondheim, 2003); and Julia Davies "'Hello newbie! ☺ ** big welcome hugs** hope u like it here as much as I do! ☺'" An exploration of teenagers' informal on-line learning', in David Buckingham and Rebekah Willett (eds.) *Digital Generations: Children, Young People and New Media* (Mahwah, NJ: Erlbaum, in press).
- 42 Basingstoke: Palgrave Macmillan, 2003.
- 43 See, for example, Martin Oliver and Caroline Pelletier 'Activity theory and learning from digital game: implications for game design', in David Buckingham and Rebekah Willett (eds.) *Digital Generations: Children, Young People and New Media* (Mahwah, NJ: Erlbaum, in press) 44 See Diane Carr, David Buckingham, Andrew Burn and Gareth Schott *Computer Games: Text, Narrative and Play* (Cambridge: Polity Press, in press), particularly Chapters 7 and 8.
- 45 For a useful critique of these ideas, see Julian Sefton-Green 'Informal learning: substance or style?' *Teaching Education* 14(1): 37–51, 2003.
- 46 For an unblinking look at some of the difficulties at stake here, see Simon Egenfeldt-Nielsen *Beyond Edutainment: Exploring the Educational Potential of Computer Games* (PhD thesis, IT University of Copenhagen, 2005)
- 47 Puttnam refers to his earlier remarks (which unfortunately I cannot trace) in a speech 'Transforming the way we teach: IT and education', delivered at the Bertelsmann Foundation in Gutersloh, Germany, 5 November 2002. See: www.netwerk-medienschulen.de/dyn/bin/4316-4319-1-dinner_speech_lord_puttnam.pdf
- 48 David Buckingham and Margaret Scanlon *Education, Entertainment and Learning in the Home* (Buckingham: Open University Press, 2003); and see also 'Selling learning: towards a political economy of edutainment media', *Media, Culture and Society* 27(1): 41–58, 2005.
- 49 David Buckingham, Margaret Scanlon and Andrew Burn 'Motivating Maths? Digital Games and Mathematical Learning' *Technology, Pedagogy and Education* 14 (1): 127–140.
- 50 These issues have been discussed at length in my book *Media Education: Literacy, Learning and Contemporary Culture* (Cambridge: Polity Press, 2003). For a recent review of research, see David Buckingham et al. *The Media Literacy of Children and Young People: A Review of the Academic Research* (London: Ofcom, 2005)

Schooling the Digital Generation: Popular Culture, New Media and the Future of Education

- 51 Speech to British Film Institute/UK Film Council/ Channel 4 Media Literacy Seminar, London 27 January 2004.
- 52 This section draws on a paper published in David Buckingham and Angela Macfarlane *Towards a Digitally Driven Curriculum* (London: Institute for Public Policy Research, 2001). See also Buckingham *Media Education*, op. cit., particularly Chapter 11.
- 53 Umberto Eco, 'Can television teach?' *Screen Education* 31, Summer 1979.
- 54 See Vivi Lachs *Making Multimedia in the Classroom: A Practical Guide* (London: Routledge, 2000); and Julian Sefton-Green (ed.) *Young People, Creativity and New Technologies* (London: Routledge, 1999)
- 55 My colleague Andrew Burn has published several studies in this area: see, for example 'Grabbing the werewolf: digital freezeframes, the cinematic still and technologies of the social', *Convergence* 5(4): 80–101, 1999. See also Mark Reid, David Parker and Andrew Burn, *Digital Video Report*, BECTA: <http://www.becta.org.uk/research/reports/digitalvideo/index.html>; and David Buckingham, Issy Harvey and Julian Sefton-Green 'The difference is digital? Digital technology and student media production', *Convergence* 5(4): 10–20, 1999.
- 56 For some accounts of this work, see Andrew Burn 'Spiders, werewolves and bad girls' *Changing English* 3(2): 163–76, 1996; and Andrew Burn and Kate Reed 'Digitens: media literacies and digital technologies in the secondary classroom', *English in Education* 33(3), 1999. See also www.parkside.cambs.sch.uk and www.charlesedwardbrooke.lambeth.sch.uk.
- 57 See Vivi Lachs *Making Multimedia in the Classroom: A Practical Guide* London, Routledge, 2000. Further instances of such projects are contained in Julian Sefton-Green (ed.) *Young People, Creativity and Digital Technology* London, Routledge, 2000.
- 58 For an account of this work, see Julian Sefton-Green 'Beyond school: futures for English and media education' *English in Australia* 127–128, May 2000, pp. 14–23. WAC's website is at: www.wac.co.uk.
- 59 See www.childrenyouthandmediacentre.co.uk for details of our current and completed research projects.
- 60 See Martin Barker 'A discourse of derision', in Martin Barker and Julian Petley (eds) *Ill Effects* (London: Routledge, 2001)
- 61 Jurgen Habermas *The Structural Transformation of the Public Sphere* (Cambridge, MA: MIT Press, 1962/1989)

David Buckingham pioneered the development of research in media education in the UK, and has played a major role in the application of cultural studies approaches to analysing children's and young people's interactions with television and electronic media. He is **Professor of Education** at the **Institute of Education, London University**. He is the founder and **director of the Centre for the Study of Children, Youth and Media**. He is the author, co-author or editor of 20 books, and well over 180 articles and book chapters. His work has been translated into 15 languages.

His key publications include:

Children Talking Television (Falmer, 1993),
Moving Images (Manchester University Press 1996),
The Making of Citizens (Routledge, 2000),
After the Death of Childhood (Polity, 2000) and
Media Education (Polity, 2003).

Forthcoming books include

Beyond Technology: Learning in the Age of Digital Media (Polity) and
Global Children, Global Media: Media, Migration and
Childhood (with Liesbeth de Block, Palgrave).

Contact: d.buckingham@ioe.ac.uk

LANGENBUCHER, Wolfgang R./LATZER, Michael (Hrsg.): Europäische Öffentlichkeit und medialer Wandel.

Eine transdisziplinäre Perspektive. VS Verlag für Sozialwissenschaften, Wiesbaden 2006, 419 Seiten.

ISBN-10: 3-531-14597-5, ISBN-13: 978-3-531-14597-6

Die zunehmende Europäisierung der Politik, die Debatte über fehlende Bürgernähe, die zunehmende Kluft zwischen europäischen politischen Eliten und der europäischen Bevölkerung, all das und vieles mehr sind Themen, die auch in der Kommunikationswissenschaft diskutiert werden.

Das vorliegende Buch, so die Autoren Michael Latzer und Florian Saurwein in der Einleitung, sucht nach Antworten auf die Fragen, wie eine der europäischen Politik adäquate Öffentlichkeit idealtypisch aussehen soll, auf welcher Stufe des Weges sich Europa derzeit befindet und welche strukturellen Hindernisse es zu überwinden gilt. Dies sind zentrale Fragen für die Weiterentwicklung europäischer Demokratie und Integration.

In vier Abschnitten werden theoretische Skizzen zur Bedeutung und den Konzepten europäischer Öffentlichkeit, empirische Ergebnisse zur Existenz, Ausmaß und Formen europäischer Öffentlichkeit, Analysen zu medialen Strukturbedingungen sowie zur Rolle von Zivilgesellschaft und Publikum in der europäischen Öffentlichkeit präsentiert.

Das Buch fasst eine Tagung in Wien zu diesem Thema zusammen, auf wissenschaftlichem und daher nicht ganz leicht lesbarem Niveau. Literaturverzeichnisse bieten jenen Leser/innen, die sich detailliert mit der Thematik Europa und Öffentlichkeit beschäftigen wollen, viel Material.

C. Hüffel